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APPENDIX TO THE JOURNALS

OF THE

SENATE AND ASSEMBLY

OF THE

FORTIETH SESSION

OF THE

LEGISLATURE OF THE STATE OF CALIFORNIA

VOLUME III.

FRIEND WM. RICHARDSON, SUPERINTENDENT OF STATE PRINTING
SACRAMENTO, CALIFORNIA
1913

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VOLUME III.

1—Report of Bureau of Labor Statistics, 1911–1912.

2—Report of State Conservation Commission, 1912.

3—Report of State Water Commission, 1912.

4—Report of Reclamation Board of California, 1912.

5—Report of State Forester, 1912.

6—Report of Insurance Commissioner, 1911.

Fifteenth Biennial Report

OF THE

Bureau of Labor Statistics

OF THE

State of California

1911-1912

JOHN P. McLAUGHLIN, Commissioner
948 Market Street, San Francisco

Friend Wm. Richardson, Superintendent of State Printing
SACRAMENTO, CALIFORNIA
1912

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PERSONNEL OF THE BUREAU.

Statutory.

Commissioner	John P. McLaughlin
Deputy Commissioner	John Kean
Deputy Commissioner (Los Angeles)	John J. Tobin
Assistant Deputy Commissioner (Los Angeles)	Henry H. Lyon
Statistician	H. A. Scheel
Stenographer	Katherine Kelly

Special Agents and Assistants.

Harry Gorman.
John P. Denehy.
David McLennan.
J. A. Kelly.
Mrs. Mary Kingsford.
William Telle.
J. J. Egan.
Mrs. Katherine P. Edson.
Florence Burns.
Nora O'Callaghan.
*George T. Holbrook.
*L. A. Byers.
*J. W. Atkins.
*R. W. Bush.

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*Employed in temporary capacity only, during tabulation and compilation of this Fifteenth Biennial Report.

ACKNOWLEDGMENT.

To the employing public, who have come to realize that the work of the Bureau is aimed at the improvement of the social and economic conditions of the bulk of our population, and who have shown a willingness to assist rather than resist the officers of the Bureau: To the District Attorneys, Police Departments, Probation Officers, Attendance Officers, and other officials who have rendered valuable assistance in the enforcement of labor laws: To the Judges of the higher and lower courts, who have upheld and made effective those laws designed for the protection and uplift of the women, children and men who must labor: To the official staff of the Bureau, whose loyalty and careful work are largely responsible for the results achieved: To each and all of them I tender my thanks.

JOHN P. McLAUGHLIN,
Commissioner.

LETTER OF TRANSMITTAL.

State Bureau of Labor Statistics,
San Francisco, October 21, 1912.

Sir:

I have the honor to submit the Fifteenth Biennial Report of this Bureau.

Respectfully,

JOHN P. McLAUGHLIN,
Commissioner.

His Excellency Hiram W. Johnson,
Governor of California.

FINANCIAL STATEMENT

For the Sixty-second Fiscal Year ending June 30, 1911, and the Sixty-third Fiscal Year ending June 30, 1912.

SIXTY-SECOND FISCAL YEAR.

Appropriations.

Salary of Commissioner	$3,000 00	
Salary of Deputy Commissioner	2,400 00	
Salary of Assistant Deputy Commissioner—Los Angeles	2,100 00	
Salary of Statistician	2,100 00	
Salary of Stenographer	1,200 00	
General appropriation	7,500 00	
Rent fund	1,200 00	
Printing fund	2,500 00	
Balance from sixty-first fiscal year, including $232.00 in printing fund	246 80	
Total amount available		$22,246 80

Disbursements.

Salary of Commissioner	$3,000 00	
Salary of Deputy Commisioner	2,400 00	
Salary of Assistant Deputy Commissioner—Los Angeles	2,100 00	
Salary of Statistician	2,100 00	
Salary of Stenographer	1,200 00	
General appropriation—For salaries of special agents, contingent and traveling expense	7,514 80	
Office rent	1,200 00	
Printing—Fourteenth Biennial Report, stationery, etc	2,732 00	
Total disbursements		$22,246 80

SIXTY-THIRD FISCAL YEAR.

Appropriations.

Salary of Commissioner	3,000 00	
Salary of Deputy Commissioner	2,400 00	
*Salary of Deputy Commissioner—Los Angeles	2,400 00	
Salary of Assistant Deputy Commisioner—Los Angeles	2,100 00	
Salary of Statistician	2,100 00	
Salary of Stenographer	1,200 00	
General appropriation	7,500 00	
Rent fund	1,800 00	
Printing fund	3,000 00	
Total amount available		$25,500 00

Disbursements.

Salary of Commissioner	$3,000 00	
Salary of Deputy Commissioner	2,400 00	
*Salary of Deputy Commissioner—Los Angeles	2,400 00	
Salary of Assistant Deputy Commissioner—Los Angeles	2,100 00	
Salary of Statistician	2,100 00	
Salary of Stenographer	1,200 00	
General appropriation—For salaries of special agents, contingent and traveling expense	7,498 74	
Office rent	1,705 00	
Printing—Stationery, printing, etc	2,016 24	
Total disbursements		$24,419 98
†Balance		$1,080 02

---

*Effective—April 28, 1911.

†Includes—Balance in general appropriation	$1 26
Balance in rent fund	95 00
Balance in printing fund	983 76

FINANCIAL STATEMENT—Continued.

Contingent Fund.

Statutes of California, 1909, pages 137, 191, 391.

Fiscal Year ending March 31, 1911.

On hand—March 31, 1910	$53 93
Receipts—Year ending March 31, 1912	8,459 00
Total on hand	$8,512 93
Disbursements—Year ending March 31, 1911	8,512 93

Fiscal Year ending March 31, 1911.

Receipts—Year ending March 31, 1912	$10,333 27
Disbursements—Year ending March 31, 1912	3,998 43
Balance on hand—March 31, 1912	$6,334 84

SUMMARY.

The Bureau of Labor Statistics was established in 1883, and until recently its work had been confined principally to the gathering and compilation of statistics. Only four laws contained any provision for their enforcement by the officers of the Bureau and as a result the bulk of the labor laws of our State remained dead letters. Under the present administration the Bureau has departed from the old-fashioned ideas and time-worn methods pursued by similar Bureaus, and has placed a new interpretation on the purposes for which such a Bureau should be maintained. We have undertaken the enforcement of all laws affecting labor, even though no provision has been made for this work and we have endeavored to cover as much of the field as our limited funds would permit.

For the first time in the history of this State, the working men and women have a place to go to tell their story and obtain advice and assistance without cost when they have been deprived of the wages they have honestly earned; when they have been defrauded by schemers or unscrupulous employers; when they have been shuttlecocked about the country through misrepresentations by employment agents and others, or when they have been made the victims of a multitude of other abuses.

The men and women who must earn their living by the sweat of their brow have not the time or money to resort to the courts in order to obtain redress from such wrongs. Therefore, the Bureau has in reality become, in a degree, a poor man's court; a place where he can be heard and where his case can be disposed of quickly and without cost.

In carrying out this work, the Bureau stands as one of the most important institutions tending to the social betterment of the people of this State. It tends to prevent men who have been denied their wages by employers after having earned them, from becoming embittered against society in general, and from being forced, by lack of money, to commit crime. It tends to prevent the working girls and women from being cast out upon the community without funds, and their being forced into a life of shame.

The Bureau in all this work has adopted a policy of absolute fairness in deciding questions between employer and employee, and it has always been the aim to have both parties go away with the conviction that they have had a square deal, and with a better understanding of their obligation toward each other.

The Bureau has wiped out the pay check evil as it formerly existed in this State. To-day every man and woman employed must be paid in coin or negotiable paper, payable upon demand without discount at some bank or other established place of business. No longer can employers pay off in time checks, payable in one or two, or sometimes, six months; or discount their own checks for ten or twenty per cent when cash is desired; or compel men to cash their pay checks in saloons owned or controlled by the employer. The firms that were most notorious for these practices and who defied the courts, to-day pay their employees full wages regularly, and if a dispute arises, they answer the citations of the commissioner promptly and abide by his decisions.

The wage collection agencies have been practically driven out of business and to-day, when men and women have wages due them, they get the entire amount, not ten or twenty per cent of it, as was formerly the case, when the collection agent would charge fifty per cent for collecting wages and make the employee pay the cost and expenses. The Bureau has compelled the payment of wages in amounts as small as sixty cents and as large as $300.00. While sixty cents may seem trifling, it was sufficient to keep a man from starving or seeking charity. In the past year the Bureau has collected upwards of $25,000 in wages for the working people of this State.

The Bureau has brought the employment agencies absolutely under its control, and now a person seeking employment need have no fear that he or she is going to be fleeced by such agents. If any employment agent misrepresents conditions to a person seeking employment, he is compelled to return the fee paid and the expense incurred. During the past year, the Commissioner has ordered the return of over $1,500.00 in fees and expenses for misrepresentations to persons looking for employment. In addition to this the agents have been ordered to furnish other positions without charge, in several hundred cases.

The theatrical booking agencies have been brought under control and one of the most vicious practices has been practically wiped out, namely, the stranding of chorus girls and actresses in strange towns, without funds or friends to take care of them.

The eight hour law for women has been enforced to such a degree that few employers in this State will now take a chance of violating it. By the strict enforcement of this law, the working women of our State have been raised to a higher plane than their sisters in the other states of the Union.

Under the present administration the child labor law was for the first time placed upon a sound foundation, and the work that has been done during the past year will for all time to come, prevent child labor from getting a foothold in this State. The child has been practically eliminated from the factory, workshop and store, and the school attendance has been swelling as a consequence. During the year ending June 30, 1912, the attendance in the public schools of the State increased 20,147. A firm respect for the child labor law has been instilled into the minds of employers, and no one would care to be accused of employing child labor.

Since the Bureau has undertaken the enforcement of the laws requiring temporary floors in buildings under course of construction, the number of deaths caused by falls, in the ranks of structural ironworkers, has been reduced seventy-five per cent.

As stated before, the Bureau has undertaken the enforcement of all labor laws upon the statute books of this State, notwithstanding the fact that only in four instances is any provision made for their enforcement.

In order to accomplish all these things and to enforce the laws so that they would be of real benefit to the people, the Bureau was obliged to undertake 173 prosecutions during the past year, in addition to the many thousands of cases where the evils were corrected by warnings.

In turning our attention to the enforcement of labor laws, we have not neglected the gathering and compilation of statistics, or the inspection of factories and stores, as will be shown by a perusal of part two of this report, which is devoted to statistical tables.

The following tables are submitted in order to show at a glance what has been done in the enforcement of laws by this Bureau during the fiscal year ending June 30, 1912, the present commissioner having taken office March 1, 1911.

Record of Prosecutions by this Bureau during the fiscal year ending June 30, 1912.

Nature of offense.	Total for State.	San Francisco office.	Los Angeles office.	Disposition of cases.		
				Convicted.	Dismissed.	Pending.
Child labor law	32	25	7	16	15	1
Eight hour law for women	72	50	22	44	17	11
Payment of wages law	12	5	7	1	10	1
Pay check law	3		3		1	2
Employment agents — Advance fees	2	2		1	1	
Employment agents—Licenses	6	4	2	5	1	
Misrepresentation as to strikes	3	3		2	1	
Blower law	3	1	2	1	2	
Ten-hour law for drug clerks	1		1	1		
Weekly day of rest law	9	5	4	9		
Totals	143	95	48	80	48	15
*Vending at night law	30	30			30	
Totals	173	125	48	80	78	15

*These cases were against newsboys, and this Bureau did not desire to obtain convictions against the boys. The arrests were made more in the nature of a warning.

Record of Complaints filed in Bureau and investigated during fiscal year ending June 30, 1912.

	Total for State.	San Francisco office.	Los Angeles office.
Non-payment of wages	1,899	1,274	625
Eight-hour law for women	622	466	156
Employment agencies	487	345	142
Child labor	150	104	46
Blowers	61	30	31
Sanitation	62	45	17
Scaffolding, flooring, etc.	14	13	1
Weekly day of rest	29	24	5
Public work	6	4	2
Ten hours for drug clerks	5	5	
Seats for females	1	1	
Totals	3,336	2,311	1,025

Disposition of Claims filed for non-payment of wages for year ending June 30, 1912.

	Claims filed.	Claims collected.	Amount of wages collected.
San Francisco Office	1,274	865	$16,899 44
Los Angeles Office	625	427	7,546 15
Totals	*1,899	1,292	*$24,445 59

*This only represents individual claims and does not include groups involving large sums, which would swell the total to over $50,000.

Disposition of Claims against employment agencies for year ending June 30, 1912

	Complaints filed.	Fee and expenses ordered returned.		New positions furnished.	Dismissed.
		Number.	Amount.		
San Francisco Office	325	248	$1,157 15	15	62
Los Angeles Office	141	117	313 15	18	6
Totals	*466	365	$1,470 30	*33	68

*In addition, several hundred new positions were ordered furnished, in cases where there was a slight misunderstanding, and no record was kept of these, as they were settled by telephone.

RECOMMENDATIONS.

The recommendations suggested herewith are the results of over a year's experience in the enforcement of the labor laws of this State. These recommendations are presented only after careful investigation and thought upon the subjects covered; and we urge upon the legislature the enactment of laws adequate to meet the conditions described.

CHILD LABOR.

Statutes of 1911, chapter 688, prohibiting any minor under the age of eighteen years, to vend and sell goods, engage in or conduct any business between ten o'clock in the evening and five o'clock in the morning, should be amended to prohibit any child under the age of twelve years from engaging in any of the above mentioned pursuits at any time, and to prohibit any child under sixteen years of age from engaging in them after eight o'clock in the evening. The penalty should be imposed upon the parent, guardian or person having charge or care of the child.

One of the most deplorable sights in our large cities is the child of six or seven years of age selling chewing gum, matches and papers upon the streets, up to ten o'clock at night. These children are mostly of foreign parents and it is absolutely necessary at this time to prevent this evil, in view of the increase of our foreign population after the opening of the canal. Conditions at present are such, that the children take their wares to school with them, so as to lose no time in getting to the business centers to start their work. We have found children selling on the streets within two or three minutes after the schools let out. These children often remain on the streets until eight or nine o'clock before going home to their evening meal.

The child labor law, Statutes of 1905, page 11, as amended, Statutes of 1911, Chapter 456, should be amended by providing for a special certificate permitting children under the age of fifteen years to work, providing they had completed the prescribed grammar-school course or its equivalent. At the present time this Bureau is issuing such a certificate in order to overcome a conflict between the child labor law and the compulsory education law.

BUREAU OF LABOR STATISTICS.

The act creating the Bureau, Statutes of 1883, page 27, should be amended with a view to enlarging the powers of the Commissioner to meet the present-day conditions. At present no provision is made for the enforcement of labor laws of this State, except in four instances.

A new section should be added, making it the duty of the Commissioner to enforce all labor laws now or hereafter in effect, and giving the officers of the Bureau the necessary power to enforce them. Provision should be made for the registration of all factories operating in this State, so as to facilitate the work of inspection and to enable the Bureau to keep a record of the growth of the industries of our State. Adequate appropriations should be made to meet the increased work of the Bureau.

WAGE CLAIMS.

The work of handling wage claims by this Bureau has grown to such proportion that it will be practically impossible for us to take up all these claims. Two courts should be established—one in San Francisco and one in Los Angeles—whose duty it shall be to decide claims involving wages. A mode of procedure especially adapted to this class of claims should be provided and no fees should be charged in claims amounting to less than $100. Only one continuance should be granted to either party and a decision should be rendered within ten days from date of filing. In all other cities and towns the justices' courts should try cases involving wages, and a special procedure should be provided for such cases, similar to those to be used in San Francisco and Los Angeles.

In the chapter entitled "Payment of Wages" will be found a description of the methods now employed by this Bureau in handling wage claims; also a statement of what has been accomplished in the past year.

EMPLOYMENT AGENCIES.

The present laws regulating employment agencies, Statutes of 1903, page 14, and Statutes of 1909, page 191, should be amended with a view to obtaining uniformity in the issuance of receipts and the keeping of registers; also providing for the bonding of agents and the regulation of theatrical booking agencies, all of which are described in the chapter entitled "Employment Agencies."

FACTORY INSPECTION.

California at present has no adequate legislation for the protection of persons working in factories. What has commonly been called our factory inspection law, Statutes of 1889, page 3, is practically of no value. A comprehensive law should be enacted and such law should cover, among other things, the protection of employees operating machinery; the kind and location of stairs, doors and fire escapes; the size, ventilation, sanitation and lighting of work rooms; the number, location and care of wash-rooms and toilets; the inspection and operation of elevators, chutes, and conveyors, and the inspection of boilers.

While at the present time we are not confronted with the problem of tenant-factories, some provision should be made to prevent this undesirable system from ever getting a foothold in this State.

The inspection should extend to mercantile establishments and to all other places where labor is employed; also to theatres, places of amusement, and especially moving picture shows.

Provision should be made for a sufficient number of factory inspectors in order to make the law effective.

INSPECTION OF LABOR CAMPS.

Some of the labor camps maintained by companies and contractors in building railroads, highways and other construction work in this State are kept in an insanitary and unhealthful condition and are a source of disease. A law should be enacted providing for the inspection of these camps, making the company, contractor or person in charge responsible for their cleanliness, and giving the Commissioner of the Bureau the right to condemn a camp, if, after investigation, he is satisfied that it is dangerous to the public health.

MINE INSPECTION.

In mining—one of the largest and most important industries in our State—the men employed are practically without any protection. Some laws have been passed, but no provision was ever made for their enforcement. While investigating an accident at the Bunker Hill Mine, where sixty-eight men were entombed from 6.45 a. m. on February 7, 1912, to 12.55 p. m. on February 8, 1912—or a period of thirty hours—we found an utter disregard for the protection of the lives of the miners. In this case, the accident had been caused by the breaking of the steel cable which released the skip and caused a cave-in below the collar of the shaft at a depth of about eighty feet. In this mine no attention had been paid to the law, Statutes of 1871–72, page 413, providing for escape shafts. At one time this mine did have a 1900-foot tunnel leading out at the 200-foot level, but it had been allowed to cave in. It developed upon further investigation that many mines in the same vicinity were also violating the law, and the Bureau secured the services of J. W. Atkins, a mining engineer, to make a special investigation. Mr. Atkins spent a month visiting the principal mines on the Mother Lode, and the results of his investigation are on file in the office of the Bureau. This report shows many flagrant violations of the present laws and practically a total disregard for the safety of the miners. Provision should be made for the appointment, by the Commissioner of this Bureau, of a competent mine inspector, whose compensation should be sufficient to insure the services of a man with the necessary technical and practical training.

EIGHT HOUR LAW IN MINES AND SMELTERS.

In view of the decision of the Supreme Court, *Ex parte Martin*, 106 Pac. Rep. 235, in which the court states that "It may be questioned whether, in view of the title of the act, the limitation of hours applies to all underground work or only that performed in mines," we believe that the title of the present law, Statutes of 1909, page 279, should be amended so as to include all that is now contained in the body of the act. Section 1 of the act provides: "That the period of employment for all persons who are employed or engaged in work in underground mines in search of minerals, whether base or precious, or who are engaged in such underground mines for other purposes, *or who are employed or engaged in other underground workings whether for the purpose of tunneling, making excavations or to accomplish any other purpose or design,* or who are employed in smelters and other institutions for the reduction or refining of ores or metals, shall not exceed eight hours within any twenty-four hours, and the hours of employment in such employment or work day shall be consecutive, excluding, however, any intermission of time for lunch or meals; *provided,* that in the case of emergency where life or property is in imminent danger, the period may be a longer time during the continuance of the exigency or emergency," whereas the title to the act now reads "An act regulating the hours of employment in underground mines and in smelting and reduction works."

PROTECTION OF WORKMEN ON BUILDINGS.

While under the present law, Statutes of 1909, page 157, as amended, Statutes of 1911, Chapter 590, providing for temporary floors, the loss of life has been greatly reduced—the secretary of the structural iron workers reports a decrease of seventy-five per cent in the number of deaths due to falls since this Bureau undertook the enforcement of this law—we suggest that some effective method of enforcing the provisions of the act be provided. The Commissioner of this Bureau should be given the power to condemn a building not properly planked, and to prohibit any person from working on such building until the necessary planking is provided.

ALASKA SALMON CANNERIES.

About five thousand men are hired in San Francisco every year to work in the salmon canneries in Alaska. These men return to San Francisco after the season's work and are paid off here. The abuses practiced in the employment and the paying off of these men are such as to demand some regulation on the part of the State. This subject is treated in the chapter entitled "Alaska Salmon Canneries."

SOCIAL STATISTICS.

The act, Statutes of 1905, page 109, providing for the collecting and compilation of statistics relating to marriage, divorce and crime, by this Bureau, should be repealed. In the first place, these subjects have no proper place in such a Bureau as this, as we cannot conceive any close relation between them and labor, while in the second place the State at the present time maintains two bureaus that are investigating similar subjects. The Bureau of Vital Statistics compiles statistics on marriage, and we believe is best qualified to handle the related subject, divorce. The State Board of Charities and Corrections is gathering statistics on crime, and our work at present amounts to practically a duplication of theirs.

PART ONE.

CHILD LABOR.

One of the most gratifying results of the work of this Bureau during the past two years has been the practical elimination of child labor in this State and the laying of a firm foundation for the enforcement of the child labor laws, with a view to prevent this evil from ever obtaining a foothold in California. Every child under the age of sixteen years that is working is doing so under a legal permit, with the possible exception of a few cases in isolated places that the officers of the Bureau have not had the opportunity to reach.

The number of children to whom permits have been issued has been kept down to a very small figure, and the Bureau has made it a point to see that those children legally employed are not engaged in any capacity that might prove injurious to their health or morals.

Even though we have the child labor situation well in hand, we cannot afford to relax our vigilance, for it is the general tendency of employers of child labor to become careless and gradually slip back into the old ways, and furthermore with the opening of the Panama Canal we will have to guard against the employment of the children of immigrants, for to-day our greatest trouble lies with the children of foreigners.

When we undertook the enforcement of the child labor laws we realized that it was necessary to lay out a general plan of action. This plan contained the four courses that we determined were necessary to make the laws effective and which are:

First—A systematic and uniform issuing of certificates and permits, by a designated person, which person shall be responsible for the proper issuance and obliged to keep accurate record thereof.

Second—A coöperation of all the members of the school departments, juvenile court and probation officers, attendance and truant officers with the Bureau in carrying out the provisions of the law.

Third—A wide publicity, so that the employer is ever reminded of his liability, and the public of their responsibility to observe and report violations.

Fourth—An inspection, at short intervals, of all establishments that are apt to employ children. With this general plan the Bureau undertook the work of making the child labor law of this State something more than an ornament in the statute book.

The first thing we did was to make an inspection of about one thousand establishments in the cities of San Francisco, Los Angeles and Oakland, as a preliminary survey. During these inspections we found that many children were at work without permits, but the important fact disclosed was that most of the permits on file in the various establishments had been issued in violation of the law, while many had expired as long as five years before and did not belong to children then employed.

We found that it had been the custom for teachers and principals to issue age and schooling certificates indiscriminately, without regard to the age or schooling requirements. Often the certificates had been handed to the children in blank and were filled out by their parents and never returned to the school for verification or recording. We also found several blank certificates on file with employers, and in one instance we ran across a certificate in which the age and schooling requirements were certified to by the corner grocer.

In the course of these inspections we gathered up over 3,000 certificates and permits which had expired or had been illegally issued. If we found children of the legal age holding an improper certificate or permit we compelled the employer to obtain a new one, and if the children were under the legal age we sent them back to school.

This preliminary investigation convinced us that the greatest fault lay with the persons issuing certificates and further that there were too many permitted to issue them, and that no proper records were kept. We, therefore, proceeded to place a strict interpretation upon section 3 of the child labor law, and insisted that only one person in each city or school district be permitted to issue an age and schooling certificate. We then prepared and had printed all the certificates and permits required under the provisions of the act and had these certificates numbered in original and duplicate. The certificates and permits were then sent to all persons in the State entitled to issue them and a record was kept in our office of their numbers, so that in the event of our finding a certificate improperly issued we could determine who was at fault.

Blanks were also prepared on which the persons issuing certificates were obliged to report to the Bureau the record of each certificate issued. The same was done in the case of the Juvenile Court Permits, which are issued by the judge of the Juvenile Court to children between the ages of twelve and fifteen years when one of the parents is incapcitated by illness from supporting the children. The record of these permits is kept by the probation officer.

A pamphlet containing all the laws pertaining to the employment of children was compiled and a circular of instruction prepared. These were then mailed to all persons authorized to issue certificates or permits:

BUREAU OF LABOR STATISTICS.

STATE OF CALIFORNIA.

948 MARKET STREET. SAN FRANCISCO.

Circular No. 1—Child Labor Law.

At the recent session of the legislature many changes were made in the Child Labor Law. This circular has been issued for the purpose of bringing these changes before the persons who have to deal with this law, in order to aid in its enforcement by establishing a systematic policy and to state interpretations placed upon the law and the policy of this office in the enforcement of same. The principal changes are as follows:

The *Juvenile Court Permit* will hereafter be granted to children between the ages of twelve and fifteen years instead of between the ages of twelve and fourteen years. These permits will be issued by the judge of the juvenile court of the county, or where there is no juvenile court, then by a judge of the Superior Court. All applicants for these permits should be referred to the Probation Officer.

The *Age and Schooling Certificate* will be granted to children between the ages of fifteen and sixteen years instead of between the ages of fourteen and sixteen years. These certificates will be issued by a city superintendent of schools or by a person designated by him in cities having a superintendent of schools, and in other places by a person authorized by the local school trustees. Principals or superintendents of schools of recognized standing have the right to approve age and schooling certificates, but we recommend that they refer all applicants to the persons designated by the public school officials. We request that the city superintendent of schools and the local school boards immediately designate a person within their jurisdiction to issue age and schooling certificates and to furnish this office with the names of persons so designated. The persons so designated must not issue a certificate unless the child presents a written request from a prospective employer of such child that an age and schooling certificate be granted to such child.

The *Vacation Permit* will be granted to children over twelve years of age to work during the *regular vacation* of the public schools. These permits will be issued by the principal or vice-principal of the school, or secretary of the board of school trustees, or board of education of the school which such child has attended during the term next preceding such vacation.

The Supreme Court in its decision on the Child Labor Law construes the vacation of the public schools and attendance during the term next preceding such vacation as follows:

> "Its true meaning is that the permit is to be given by the principal of the school which the child has attended—whether the school is public or private—but that it can extend only to the time of the public school vacation."
>
> "The amendment of March 20, 1905, extends the time of such compulsory attendance so as to embrace the whole period of the public school session. Therefore, if the parents, guardians, or custodians of a child choose to send it to a private school it must attend thereon at least during the time the public schools are in session. A permit may be obtained for it to work during the vacation of the public schools if its interests or necessities so require, without subjecting it to conditions substantially different from those affecting children attending the public schools."

The Attorney General, in an opinion furnished this office, states that *Saturdays are not* "regular vacations" within the meaning of the law.

No permit of any kind is required for any minor employed at agricultural, horticultural, or viticultural, or domestic labor, during the time the public schools are not in session, or during other than school hours. Horticultural includes the curing and drying, but not the canning, of all varieties of fruit.

A new section—designated section 3*a*—was added to the Child Labor Law providing that no child under sixteen years of age shall, while the public schools are in session, be and remain idle and unemployed for a period longer than two weeks, but must enroll and attend school, and provides for a notification by the employer to the proper authorities when the child leaves his employ.

The officers and agents of this Bureau will recognize as valid, all certificates issued under the provisions of the Child Labor Law prior to its amendment. The amendments became effective June 13, 1911.

Th's office has prepared and printed the necessary permits and certificates and will furnish them to persons authorized to issue same. Age and schooling certificates and vacation permits will be sent to city superintendents of schools for use in cities, and to county superintendents of schools for distribution throughout the county. Juvenile court permits will be sent to the probation officers of each county. We trust that you will coöperate with this Bureau and thus obtain the best results in carrying out the provisions of the Child Labor Law.

BUREAU OF LABOR STATISTICS,
JOHN P. MCLAUGHLIN,
Commissioner.

The second step was to send copies of the laws and instruction to the various school departments, probation and attendance officers. We also held several conferences with them and made personal visits to as many as possible, all with a view to obtain their coöperation.

In seeking a wide publicity we sent copies and digests of the laws pertaining to employment of children to the principal newspapers through the State and requested that they be published. We also delivered copies of the law to the thousands of employers in the larger centers of industry.

After these first three steps had been covered and enough time had elapsed to put them into effect, we began a thorough inspection of establishments in the cities of San Francisco, Los Angeles, Oakland, Sacramento, San José, Stockton, San Diego, and then branched out to as many other places as time and funds would permit.

In the course of this second investigation a record was taken of the name and age of every child found working, together with the number of the certificate under which he or she was permitted to be employed. Several violations were found, but they were for the most part only technical and were immediately corrected.

That our work has been successful we leave to the public to judge from the following figures:

Total number of establishments inspected	5,123
Total number of employees	148,549
Total number of children under 16 years	1,331
Percentage of children to total number of employees	0.9 per cent

The number of children under 16 years of age, therefore, constituted less than 1 per cent of the total number of persons employed. A further analysis of our figures shows as follows:

Children between 15 and 16 years working under an age and schooling certificate	1,071
Children between 12 and 15 years working under a juvenile court permit (which is only issued for a temporary period)	260
Total	1,331

Of the children between the ages of 15 and 16 years, 761 were boys and 400 girls, while of those between the ages of 12 and 15 years, 207 were boys and only 53 girls. Retail establishments employed 55.4 per cent of all the children under 16 years of age. Wholesale establishments employed 6 per cent and manufacturing establishments 37.7 per cent.

If the enforcement of the child labor law has been effective, the results must show in one place in particular and that is in the public schools. Let us now look for this effect in the enrollment and attendance in the last year and compare it with former years:

NOTE.—Figures in detail are given in chapter on Child Labor Statistics.

Enrollment Primary and Grammar Schools, State of California.

Year ending June 30.	Enrollment.	Increase over preceding year.	Per cent of increase.
1909	312,222	13,297	4.4
1910	322,361	10,139	3.2
1911	334,655	12,294	3.8
1912	356,945	22,290	6.7

Average Daily Attendance Primary and Grammar Schools, State of California.

Year ending June 30.	Average daily attendance.	Increase over preceding year.	Per cent of increase.
1909	244,621	12,296	5.3
1910	252,321	7,700	3.1
1911	263,402	11,081	4.4
1912	280,485	17,083	6.5

During the year ending June 30, 1912, the enrollment in the primary and grammar schools of the State increased 22,290 as compared with an increase of 12,294 during the preceding year. The per cent of increase during 1912 was 6.7 per cent as compared with 3.8 per cent during 1911, 3.2 per cent during 1910 and 4.4 per cent during 1909. The average daily attendance in these schools increased 17,083 in 1912 as against 11,081 in 1911. The per cent of increase during 1912 was 6.5 per cent as compared with 4.4 per cent during 1911, 3.1 per cent during 1910 and 5.3 per cent during 1909.

That publicity has had its effect is shown by the number of complaints filed in the Bureau by the public. During the fiscal year ending June 30, 1912, 150 complaints were filed and investigated by the officers of the Bureau.

Child Labor Complaints Filed in Bureau and Investigated During Fiscal Year Ending June 30, 1912.

Industries complained against.	Total.	San Francisco office.	Los Angeles office.
Bakeries	6	3	3
Butcher shops	5	5	
Candy stores	4	4	
Drug stores	5	2	3
Dry goods, clothing and department stores	17	14	3
Grocery stores	8	4	4
Hotels	2	2	
Laundries	7	2	5
Printing	4	2	2
Private places	5	5	
Restaurants	5	5	
Retail stores	7	7	
Tailors	12	5	7
Telegraph and messenger service	6	4	2
Theaters	24	17	7
Miscellaneous	33	23	10
Totals	150	104	46

In addition to these investigations the Bureau was obliged to bring 32 criminal prosecutions under the child labor law during the fiscal year ending June 30, 1912. These prosecutions were against persons who had been given a warning and had failed to heed it. The Bureau also brought action against 30 boys for vending between ten o'clock at night and five o'clock in the morning. These boys were taken before the Juvenile Court and given an admonishment. We did not desire that any record of conviction should stand against the boys, but only desired to break up the practice of young boys being on the streets when they should be in bed.

Owing to a conflict between the child labor law and the compulsory education law, the former provides that no child under 15 years of age shall be employed without a juvenile court permit, which can only be obtained when the parent or parents of the child are incapacitated from labor through illness, and the latter that any child under 15 years of age need not attend school if he or she has completed the prescribed grammar school course; we were obliged to issue a new permit, which we designated as a Temporary Work Permit. This permit is issued only by the Bureau upon satisfactory proof that the child has completed the grammar school course. During the fiscal year ending June 30, 1912, 181 of these permits were issued.

Temporary Work Permits Issued to Graduates of Grammar School, Under 15 Years of Age, Fiscal Year Ending June 30, 1912.

Age.	Total.	Male.	Female.
San Francisco—			
13 years	9	8	1
14 years	85	66	19
Totals	94	74	20
Los Angeles—			
13 years	9	8	1
14 years	78	52	26
Totals	87	60	27
Totals—			
13 years	18	16	2
14 years	163	118	45
Totals	181	134	47

The following tables give a record of these certificates and permits issued to children under 16 years of age permitting them to work under the provisions of the child labor law in the entire State, during the fiscal year ending June 30, 1912.

AGE AND SCHOOLING CERTIFICATES.

(Children between 15 and 16 years.)

Literate children—		
Male	1,260	
Female	651	
Total		1,911
*Illiterate children—		
Male	112	
Female	43	
Total		155
Total age and schooling certificates issued		2,066

Out of the total number of certificates issued 607 or 29.4 per cent were issued in the city and county of San Francisco, 790 or 38.2 per cent in Los Angeles County, 385 or 18.6 per cent in Alameda County, while the remaining 284 or 13.8 per cent were issued in the other 55 counties of the State. 1372 certificates or 66.4 per cent of the total were issued to boys and 694 or 33.6 per cent to girls. Of the 155 certificates issued to illiterate children 120 or 77.4 per cent were issued in Los Angeles County while only 13 or 8.4 per cent were issued in San Francisco and 20 or 12.9 per cent in Alameda County. Boys constituted 72.3 per cent of the illiterates and girls 27.7 per cent.

JUVENILE COURT PERMITS.

(Children between 12 and 15 years.)

Age.	Total.	Male.	Female.
12 years	26	25	1
13 years	88	75	13
14 years	212	166	46
Totals	326	266	60

Out of the total number of permits issued 142 or 43.5 per cent were issued in the city and county of San Francisco, 38 or 11.7 per cent in Los Angeles County and only 8 or 2.5 per cent in Alameda County. The remaining 138 permits or 42.3 per cent were issued in the other counties. 266 permits or 81.6 per cent of the total were issued to boys and only 60 or 18.4 per cent to girls.

These juvenile court permits are only for a limited period of time. The following table shows the length of time for which permits were issued:

Less than 1 month	12
1 month up to 3 months	38
3 months up to 6 months	138
6 months up to 1 year	89
1 year and over	47
Indefinite	2
Total	326

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* Illiterate children are obliged to attend night school and must furnish employers with a certificate of attendance.

It will probably have been noticed that the number of all certificates and permits issued exceeds the number of children we found working in establishments inspected. This may be accounted for in many ways. In the first place we did not reach every establishment in the State during our inspection, nor did we inspect the offices of attorneys and other professional men who employ several children under sixteen years of age, but the principal reason is the fact that a large number of children obtain permits and only use them for a short period of time, or use them to work after school or on Saturdays for delivering newspapers. or use them in place of a vacation permit and then return to school. This investigation did not include the children working during the school vacations, the majority of whom are employed in the agricultural industries.

PAYMENT OF WAGES.

The legislature of 1911 enacted two laws that stand out as milestones in the cause of improving the conditions of those that depend upon their wages for their existence. These two laws are what are commonly known as the payment of wages law and the pay check law. The former provides for the payment of wages earned, immediately upon the discharge of an employee, or within five days, when an employee quits or resigns. It also provides for a monthly pay day and prohibits the withholding of wages for more than fifteen days. The latter law provides for the payment of wages in cash or in negotiable paper, payable upon demand without discount at some bank or established place of business in this State.

The legislature, however, failed to make any provision for the enforcement of these laws or to make any appropriation to defray the cost of enforcing them; and, like many other laws, they would have remained dead letters upon our statute books. This Bureau, however, appreciated their importance and immediately undertook to put them into effect, but we realized at the start what an enormous task lay before us; in fact, the collection of wages has taken up the bulk of our time and has made heavy inroads into our funds.

During the fiscal year ending June 30, 1912, 1899 claims for wages were filed in the Bureau, and investigated. We succeeded in collecting 1292 of these claims, amounting to $24,445.59. These figures represent only the individual cases handled by the Bureau and do not include those involving large numbers or groups which were settled at one time. If we included the latter the amount would run to over $50,000. For example, we had a case in which a large contractor failed and left his men stranded upon the work with wages amounting to over $5,000 due them. We called a conference with the attorneys for the principals, the contractor and the bonding company, and after a series of meetings it was agreed that the bonding company would continue the work and protect the claims of the laborers.

If the claimants had been compelled to resort to the collection agents for the collection of their wages, they would have received less than $5,000 out of this amount; for, in the first place, over one half of the wage claims were so small that a collection agent would not handle them, and, in the second place, the cost of collection would have amounted to over 50 per cent of the amount involved. Furthermore, the usual methods of collecting wages would take two or three months, whereas in the wages collected by this Bureau the majority of claims have been settled in a space of three days after filing.

A typical case of the abuses that were practiced upon wage-earners by collection agencies was one in which a laborer turned over his claim for wages to an agent for collection. The agent brought an action in the Justices' Court, and after a delay of about three months succeeded in collecting the amount due. The agent then sent the laborer a check for 50 cents as his share of the $20.00 wage claim he had presented, the remaining $19.50 having gone to pay costs and commissions.

The wage collection agencies have been practically driven out of business since this Bureau undertook the enforcement of the payment of wages law.

It will be rather interesting to note the methods pursued by the Bureau in the handling of these wage claims, and will give the reader an idea of the amount of work involved.

When a claim for wages is presented at the office of the Bureau, a record of the facts is made and a special agent is sent out to the employer to make an investigation. If the employer refuses to pay the wages claimed and cannot offer a satisfactory explanation, he is cited to appear before the Commissioner, at a certain day and hour. It has been found necessary to cite the employer in over 80 per cent of the cases. At the time set in the citation the case is taken up and heard, and both sides have an opportunity of being heard. If no settlement can be arrived at and the employer refuses to pay the amount of wages that has been determined upon as due the claimant, a citation is issued directing the employer to appear at the office of the district attorney, to show cause why a warrant should not be issued for violation of the provisions of the payment of wages law. When the case is called at the district attorney's office both parties are present, also a representative of the Bureau, and the claim is again taken up, and if the employer then refuses to pay the amount determined upon, a warrant is issued for his arrest. It has always been our earnest endeavor to avoid court proceedings and to arrive at an amicable settlement. A warrant for the arrest of the employer is only sought after all other means have failed, or where we have reason to believe that the employer intends to flee the jurisdiction. During the fiscal year ending June 30, 1912, we were only obliged to make twelve arrests for nonpayment of wages.

The Bureau in all this work has adopted a policy of absolute fairness in deciding disputes between employer and employee, and it has always been our aim to have both parties go away with the conviction that they have received a square deal, and with a better understanding of their obligations toward each other.

The collection of certain wage claims has often involved a great deal of work, time and expense when the employer has failed and his business is attached by creditors, or when he goes through bankruptcy. In these cases the Bureau has undertaken to make out and file the claims of the wage earner and to perform the necessary legal work involved. Our reason for assuming this additional work is that the wage earner has not the means to employ attorneys and as a consequence would be deprived of his earnings.

Our investigation into wage claims has brought to light some very interesting phases of the abuses to which the ignorant laborer is a victim. These may be termed Schemes to Defraud Labor, and include a number of clever schemes which have for their object the defrauding of labor under the guise of increasing their earning power, teaching them trades and giving them employment. The most vicious of these schemes was encountered in San Francisco in May, 1912, and a recital of some of the facts of the case will give a fair idea of some of the practices the unprotected laborer is made a victim of. On May 1, 1912, our attention was called to a Greek who was hiring men to perform common labor for an electric light and power company at the rate of $2.00 per day, whereas the prevailing rate of wages at that time for that class of labor was $1.75. Circulars had been printed in the Greek language and distributed widely, and hundreds of Greek laborers were leaving their work on railroad construction, where they were only receiving $1.75 per day, to apply for this new work. We obtained the service of a Greek laborer and gave him $2.50 with which to apply for a position. When he handed the fee to the Greek agent, our special agent stepped in and demanded that the Greek agent show his license to conduct an employment agency. He produced a small typewritten sheet which he claimed was his license. This sheet bore a memorandum of the number of a license that had expired on March 31st of that year. When questioned he stated that he had paid $60.00 for the license and then refused to make any further admissions. He was immediately placed under arrest and charged with conducting an employment agency without obtaining a license. We, however, realized at this time that there was something deeper involved in this case, and requested the court to raise the bail high enough so that we could hold this Greek agent and get at the real culprits. We first ascertained that there was no such company in existence as the one the men were being hired for, and there was no work whatever for them. When we confronted the Greek agent with these facts, he told us of all his dealings in the matter and it developed that he, himself, had been made a victim and had parted with over $500.

We then obtained warrants for the arrests of the two men who had concocted the scheme. These two men were very prominent in San Francisco, and every influence, both political and personal, was brought to bear in their behalf, but to no avail. The Bureau procured the services of the Hon. D. M. Duffy as special prosecutor, and after a protracted trail in the police courts they were held for trial in the Superior Court.

The trial disclosed that these two men had drawn up a fictitious contract with a fictitious corporation in which they were authorized to employ 3,000 Greek laborers. They showed this contract to the Greek agent and instructed him to go out and hire the men. The Greek agent was told to collect $2.50 from each man he hired and turn the money over to the two defendants. In consideration for his work he was to receive $500 and the job of general foreman over the laborers. The Greek agent knew that a license was necessary and told the defendants that he must have one. The defendants agreed to obtain one for him and he gave them $60 for that purpose. In place of securing a license for him they went to an empty store that had formerly been an employment agency and copied the number and name of the license and handed him this memorandum in lieu of a license.

On November 20, 1912, the defendants were found guilty of obtaining money under false pretenses and sentenced to three years imprisonment in the state penitentiary.

Fortunately this scheme had been nipped in the bud, but even though it had only been in operation one day, 148 laborers had been fleeced out of $2.50 each. If the Bureau had not taken such immediate action, 3,000 laborers would have been mulcted of $2.50 each, or a total of $7,500, and not alone this, but would have quit their jobs and rushed to San Francisco to get the increased pay that was offered.

Another of these schemes was what is known as cigar-making schools. Two of these institutions were thriving in San Francisco until the Bureau took a hand, and after a long campaign succeeded in putting them out of business. These so-called cigar-making schools were nothing more than schemes to fleece ignorant laborers—for the most part foreigners—who thought that they could improve their conditions by learning a trade. Attractive advertisements were placed in the newspapers and when the applicant applied he was told that he would have to pay $25.00 deposit to cover the cost of the material he consumed in learning, and that in a very short space of time he would be employed by the factory—which was always a part of the school—at attractive wages. The following is a copy of the contract which he was given upon payment of $25.00:

This Contract, made the -------- day of ------------, in the year one thousand nine hundred and ------,

Between the GOLDEN WEST CIGAR COMPANY of the city and county of San Francisco, State of California, party of the first part, and---------------, the party of the second part.

Witnesseth: that the party of the first part, in consideration of the covenants on the part of the party of the second part, hereinafter contained, hereby covenants with the party of the second part, that the party of the first part will in consideration of the sum of Twenty-five [25.00] Dollars to him in hand paid, by the said party of the second part, the party of the first part will teach the party of the second part the business of Cigar Making, including stripping, booking, packing, ringing, selecting colors, mold, hand and Spanish work.

And the party of the second part in consideration of the covenants on the part of the party of the first part hereinafter contained, agrees to and with the party of the first part that the party of the second part shall receive the first one thousand cigars he makes, for his time and labor and after the first 1000 cigars is made by the second party, he will be paid a certain wage per thousand, to be hereafter agreed upon.

And for the true and faithful performance of all and every of these covenants the parties to these presents bind themselves, each unto the other.

It is further agreed that in case the party of the second part fails to fulfill his part of the contract, he shall be entitled to the cigars he makes, nothing further.

It is further stipulated and agreed that the party of the second part will obey the factory rules of the first party.

In Witness Whereof, the parties have hereunto set their hands the day and year first above written.

GOLDEN WEST CIGAR COMPANY.

Signed and Delivered in the Presence of

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This contract upon its face is quite plausible, but the persons operating these cigar factories figure that the applicant will become disgusted in a few days and quit, and under the terms of the contract is entitled only to the cigars that he has made, which, by the way, are made of such material that they are unfit to smoke. If the applicant persists in remaining and completes his first 1,000 cigars, he is either offered a ridiculously low wage or some excuse is found for discharging him.

A most novel scheme encountered was one that might be called a form of continuous agency. A case was reported to us by the local police department upon a report having been made by a young man who had parted with $20.00. According to the terms of the contract entered into, this young man was to become a "manager" for the company for the period of one year at a fixed salary, but the salary was not to start until he had secured at least six agents. These agents were obliged to pay a deposit of $5.00, of which the manager was to receive $2.50 and the company $2.50. The company furnished these agents with a sample case of pot-metal knives and scissors and cheap literature, all of which was practically unsalable. If the manager failed to comply with any of the provisions of the contract, he would forfeit his $20.00 and this amount would "be retained by said company as pay for instructions furnished."

The officers of this Bureau located the official representative of the company, and made him return the $20.00 he had received. We then took him before the district attorney and he was informed that he would not be permitted to operate in this State, even though the company which he was representing was a very large and wealthy one.

A rather peculiar case came to our attention and involved one of the large casualty companies. It appeared that shortly after the passage of the Roseberry Employers' Liability Act, the various casualty companies became very active in soliciting business in the mining districts, as most of the mining companies had refused to come under the provisions of the act. The mining companies seemed to look favorably upon the work of these casualty companies, in getting the miners to take out insurance against death, accident and sickness. During a visit of Mr. H. A. Scheel to Sutter Creek and vicinity, where he was making an investigation into a mine disaster, several miners appealed to him for relief from what they considered an unjust imposition by an insurance company. It developed that an agent of the company had come to the mine and had agreed to write a policy which provided for the payment of $400 in event of death, or $1.85 per day during sickness, and the appointment of a resident physician for the benefit of the policy holders. The amount to be paid by the miners was $9.00 for a period of six months, which amount was deducted from their wages.

The policies which these miners received were entirely at variance with the statements made by the company's agent. In the first place it provided only for $100.00 in event of death and $35.00 per month during sickness, and instead of being for six months was only for two months.

This Bureau immediately took up the matter with the State Insurance Commissioner, and on February 13, 1912, we made a demand upon the company for the return of $9.00 for each of the thirty-two miners who had been defrauded. The company at first agreed to make this refund, but requested time to make an investigation. After a month had elapsed, we again made a demand upon them and they stated that the matter was being adjusted. In the mean time we had learned that nothing had been done by the company. On April 8, 1912, we cited the local representative of the insurance company, and to our surprise he appeared with counsel and informed us that his company did not have to refund the money collected, as the policies had expired on April 1, 1912, and as they had run for the period of two months, the time which premium covered, the company had earned the premium on account of its liability during that time. We informed the local agent and his counsel that we did not propose to sit idly by and tolerate such sharp practice, and we again took up the matter with the Hon. E. C. Cooper, Insurance Commissioner. Mr. Cooper instructed the company that if the money was not returned he would order an investigation of the books of the company and in the mean time revoke their license in the State of California. The local representative of the company tried to bring pressure to bear, and even went so far as to call on the Governor of this State, where they received little comfort. The company then sent thirty-two checks for $9.00 each to the Insurance Commissioner, who, in turn, handed them over to this Bureau for distribution to the claimants.

One of the most prevalent forms of defrauding laborers of their wages occurs in the so-called ''wild cat corporations.'' These corporations, as a rule, maintain elaborate offices in the larger cities, and only pay the office force a samll part of the wages agreed upon, claiming that they are hard pressed for money and that they will soon be able to pay them. They pursue the same policy at their mines, oil wells, or other enterprises by furnishing the crew with just enough money for subsistence and informing them that the money for their wages will be forthcoming at a very early date. After a few months these wild cat companies evaporate, so to speak, and the employees are left with two to three months wages due them. As a rule, when we investigate these cases, we find a dummy board of directors or every one trying to shift the responsibility.

We have prepared the following table for the purpose of showing the occupations of the persons filing wage claims in the Bureau and also the industries in which most of the violations of the payment of wage law occur. It will be noted that the claims of those in the unskilled and unorganized branches of labor predominate. The claims of common laborers constitute 21.3 per cent, or over one fifth of all the claims filed by men, while those engaged in general housework make up 23.7 per cent of all the claims filed by women.

In the industries against which claims were filed, that of construction and general contracting work stands out the most prominent, with a total of 397, or 20.9 per cent of all the claims filed, while restaurants come next with 227 claims, or 11.6 per cent; then hotels, apartment and boarding houses with 178 claims, or 9.4 per cent, and private places or homes with 149 claims, or 7.8 per cent of the total. This last item is interesting and may be accounted for by reason of the fact that in many instances women will discharge their servants in a fit of anger and will refuse to pay them the wages earned.

Wage claims investigated during fiscal year ending June 30, 1912.
(Showing occupation and sex of complainants).

Occupation and sex.	Total for state.	San Francisco office.	Los Angeles office.
Males:			
Actors and performers	25	15	10
Automobile mechanics and chauffeurs	18	12	6
Bakers	31	21	10
Barbers	6	6	----------
Bartenders	9	9	----------
Blacksmiths	7	----------	7
Bricklayers, cement workers, etc.	18	9	9
Butchers	6	4	2
Cannery hands	18	18	----------
Carpenters	105	52	53
Cigar makers	9	9	----------
Clerical help	22	16	6
Cooks	86	53	33
Electricians	13	9	4
Engineers	14	11	3
Errand boys and messengers	24	19	5
Foremen	9	4	5
Foundry helpers	6	6	----------
Gardeners	3	----------	3
General help	35	31	4
Hotel help	23	23	----------
Kitchen help	120	80	40
Laborers	333	203	130
Laundry workers	11	11	----------
Machinists	17	13	4
Mechanics	33	25	8
Metal workers	24	19	5
Milkers and dairymen	11	6	5
Miners	32	32	----------
Moving picture machine operators	6	1	5
Oil well drillers	4	----------	4
Painters	41	21	20
Plasterers	5	----------	5
Plumbers	4	----------	4
Porters, janitors, etc.	69	58	11
Printers	4	4	----------
Ranch hands	19	10	9
Salesmen	51	39	12
Stablemen	19	12	7
Stone workers	15	15	----------
Tailors	43	35	8
Teamsters	70	24	46
Upholsterers	5	5	----------
Waiters	45	33	12
Unclassified	93	68	25
Totals	1,561	1,041	520
Females:			
Actresses	24	16	8
Chambermaids	38	24	14
Clerical help	17	13	4
Cooks	15	10	5
Housekeepers	15	10	5
Housework, general	80	63	17
Laundry workers	14	9	5
Nurses	12	5	7
Saleswomen	11	8	3
Seamstresses	25	18	7
Stenographers	23	17	6
Waitresses	46	30	16
Unclassified	18	10	8
Totals	338	233	105
Recapitulation:			
Males	1,561	1,041	520
Females	338	233	105
Totals	1,899	1,274	625

Wage claims investigated during fiscal year ending June 30, 1912.
(Showing Industries against which claims were filed).

Industries.	Total for state.	San Francisco office.	Los Angeles office.
Bakeries	42	26	16
Baker shops	17	17	----------
Cabinet making and upholstering	9	9	----------
Candy, confectionery, etc.	12	8	4
Chemicals	6	----------	6
Cigars and cigarette factories	9	9	----------
Circuses and menageries	8	----------	8
Clothing stores	15	11	4
Construction and general contracting work	397	208	189
Dairies	20	10	10
Dressmaking	6	----------	6
Dry goods	17	12	5
Garages and repair shops	18	12	6
Gardeners	5	----------	5
Garments and furnishings	12	6	6
Groceries	23	16	7
Hospitals	16	9	7
Hotels, apartment and boarding houses	178	142	36
Laundries	35	24	11
Lumber and milling	11	6	5
Metal working, foundries, etc.	38	30	8
Offices	73	53	20
Oil and mining companies	42	33	9
Packing houses	20	20	----------
Printing	14	8	6
Private places	149	102	47
Railroads	54	44	10
Ranching	33	16	17
Restaurants	227	145	82
Saloons	26	23	3
Shipping	16	16	----------
Sign painting	5	----------	5
Stone and marble	18	18	----------
Tailors	59	50	9
Teaming, livery and storage	27	15	12
Telegraph and messenger service	13	13	----------
Theaters	59	32	27
Miscellaneous	170	131	39
Totals	1,899	1,274	625

EMPLOYMENT AGENCIES.

At the present time there are two laws upon the statute books respecting employment agencies, the one Statutes 1903, page 14, providing for the general regulation of employment agencies and the other Statutes 1909, page 191, providing for the licensing of employment agencies. While these two acts have served the purpose of regulating the employment agencies to a marked degree, especially the act of 1909, we are convinced from our experience in enforcing these laws that far more stringent regulations are required, particularly in view of the influx of foreign labor after the opening of the canal.

The present laws should be amended by providing for a uniform receipt, the original of which should be given to the person seeking employment and the duplicate to be kept on file by the employment agent. At the present time a great deal of the disputes arise over the receipts that are issued, owing to the fact that they do not contain the information that the employment agent gives to the applicant orally, and which is essential to prove misrepresentation. Provision should also be made for the keeping of uniform registers by employment agents, which registers should contain a complete record of every transaction, in such form as to facilitate the work of checking up the reports of these agents, by officers of this Bureau.

We are satisfied that collusion exists between some employment agents and contractors, or their superintendents or foremen, but it is practically impossible to prove it. In order to put a stop to this collusion, we believe that provision should be made for the return of the fee by the employment agent when the employee is discharged within one week from time of employment, unless it is stipulated that the employment is for a period of less than one week.

The employment agencies should be required to furnish a surety bond when making application for a license, which is the practice in many eastern states, and the Commissioner should be given the power to revoke licenses when he is satisfied that the employment agent is not carrying on a legitimate business.

Special provision should be made for the control of theatrical booking agencies, as these agencies, when uncontrolled, represent one of the worst forms of abuse in the employment business. The contracts, which these agencies use, should all contain certain restrictions and requirements and should be approved by the Commissioner before the performer is employed, as is the practice in New York. The booking agents should be required to investigate the financial ability of the theaters or managers to pay for the talent furnished. One of the most deplorable conditions that we have encountered in our work has been the stranding of road shows by irresponsible managers. Young girls are left penniless hundreds of miles from home. The moral aspect of such a situation is too well known to require any description.

The following table shows the record of complaints against employment agencies filed in our Bureau during the fiscal year ending June 30, 1912:

Disposition of Claims against Employment Agencies.

	Complaints filed.	Fee and expenses ordered returned.		New positions furnished.	Dismissed.
		Number.	Amount.		
San Francisco office	325	248	$1,157 15	15	62
Los Angeles office	141	117	313 15	18	6
Totals	*466	365	$1,470 30	*33	68

*In addition, several hundred new positions were ordered furnished, in cases where there was a slight misunderstanding, and no record was kept of these, as they were settled by telephone.

That the Bureau—even under the present laws—has the employment agency problem well in hand is shown by the fact that the number of complaints in the last six months of the fiscal year reported was less than in the first six months, and furthermore, only $414.55 was ordered returned in the last six months as against $1,055.75 in the first six months.

In this report, under the chapter devoted to statistics on employment agencies, will be found—in a series of 37 tables—the first complete record ever made of the number of persons obtaining employment through these agencies, and the amount of fee they are obliged to pay for such employment. These tables also show the occupation and sex of the person given employment and the average fee paid by each classification.

The following figures give one an idea of the amount of business transacted by employment agents and at the same time lead one to realize the importance of controlling these agencies that handle the employment of close to 200,000 persons in a year, and from which persons is exacted the enormous sum of almost one half million dollars per year for the privilege of obtaining employment.

Employment Agencies.
(License Year ending March 31, 1912.)

Class of agency.	Total number of persons employed.	Total amount of fees collected.	Average fee.
Commercial	1,754	$24,369 85	$13 89
Female	15,749	37,431 45	2 37
General	150,241	238,026 10	1 58
Hotel	14,030	31,417 88	2 24
Nurses	236	941 55	3 99
Oriental	7,868	24,264 05	2 53
Teachers	1,220	38,756 36	31 77
Theatrical	1,983	*4,280 71	†2 16
Miscellaneous	1,327	3,576 34	2 70
Totals	194,408	$403,064 29	

*The report on theatrical agencies was not complete as these agencies had not all been brought under control of the bureau at that time. Their business at the present time amounts to about $60,000 per year.

†Average fee figured on basis of engagement of one week or less.

Of the persons employed through these agencies 84.7 per cent were males and 12.1 per cent females, while in 3.2 per cent of the cases no sex was stated; 35.1 per cent of the total number of persons were furnished positions through the agencies in San Francisco, 34.2 per cent in Los Angeles and 10.9 per cent in Sacramento, making a total of 80.2 per cent in these three cities. The average fee paid by men to the general employment agencies in San Francisco was $1.66, in Los Angeles $1.59, and in Sacramento $1.20. The average fee paid by women to the female employment agencies in San Francisco was $2.67 and in Los Angeles $1.93. The average fee charged by commercial agencies for furnishing clerical positions was $13.89.

Particular attention is called to the very large fees that are paid by school teachers. During the past license year, the teachers employment agencies collected $38,756.36 from 1,220 teachers, or an average of $31.77 for each position furnished. The injustice of the payment of such fees is more intensified when we consider that the persons paying them are employed by the people of this State. We believe that teachers should not be compelled to seek employment through private agencies, and that it should be made a misdemeanor for any one to collect a fee from persons seeking employment in the service of the state or any political or civil division thereof.

EIGHT HOUR LAW FOR WOMEN.

In this chapter it is not our purpose to present a complete survey of the operation of the eight hour law for women, as we have recently been making a special investigation and our data will not be complete until the end of this year. As soon as our material is in hand we intend to make a special report on this subject.

The eight hour law for women, passed at the legislature of 1911, became effective on May 21, 1911. As is the case in most labor laws no provision was made for its enforcement. This Bureau immediately undertook to put the law into effect and had 6,000 copies of the law printed and distributed. We sought to give this law a wide publicity and notified the employing public that we intended to see that they conformed strictly to the letter of the law. At first a great deal of opposition arose, and all sorts of statements and threats were made by employers to the effect that business would be ruined and that they would have to discharge their female employees. This bureau, however, did not take much stock in these arguments and proceeded to enforce the law.

The greatest opposition came from the hotel proprietors, who declared that the law was unconstitutional, as it discriminated between the employees in a hotel and those in a rooming or boarding house.

A test case was started in Riverside, and on June 10, 1911, the Hon. F. E. Densmore, Judge of the Superior Court of Riverside County, declared the provision of the act relating to hotels unconstitutional, but that the eight hour law in all other respects was constitutional. The defendant was rearrested on June 12, 1911, and the case was taken to the Supreme Court of the State of California on an application for a writ of habeas corpus. On May 27, 1912, the Supreme Court, sitting in Bank, in a unanimous decision declared the eight hour law constitutional. This decision is printed in full in the chapter entitled "Decisions and Opinions." In the same chapter will be found two opinions of the Attorney General relating to the eight hour law. During the fiscal year ending June 30, 1912, 622 complaints were filed in the offices of the Bureau, accusing employers of violating the provisions of the eight hour law. All these complaints were investigated by the officers of the Bureau and where violations were found the employer was given a warning that in the event he was again found violating the law, prosecution would be started against him.

Complaints for Violation of Eight Hour Law for Women Filed in Bureau and Investigated During Fiscal Year ending June 30, 1912.

(Showing industries against which complaints were filed.)

Industries.	Total for the State.	San Francisco office.	Los Angeles office.
Automobile dealers	5	5	-----------
Bakeries	37	30	7
Boxes, paper	3	3	-----------
Candy factories	5	5	-----------
Candy stores	14	14	-----------
Cigar and cigarette factories	2	2	-----------
Cleaning and dyeing	7	7	-----------
Commission merchants	3	3	-----------
Dairies	9	9	-----------
Dry goods, clothing and department stores	65	52	13
Garment and furnishing factories	9	9	-----------
Groceries and markets	15	10	5
Hair dressing parlors	6	6	-----------
Hotels, apartment and boarding houses	89	73	16
Household goods	3	3	-----------
Jewelry stores	4	4	-----------
Laundries	61	49	12
Millinery	16	13	3
Moving picture shows	4	-----------	4
Music stores	7	7	-----------
Office buildings	4	4	-----------
Packing houses	15	15	-----------
Photograph galleries	3	3	-----------
Printing	5	-----------	5
Public service corporations	8	5	3
Restaurants	84	33	51
Stationery stores	7	7	-----------
Tailors	67	46	21
Theaters	9	9	-----------
Miscellaneous	56	40	16
Totals	622	466	156

The largest number of complaints was against hotels, apartments and boarding houses. These amounted to 89 and constituted 14.3 per cent of the total. Then follows the restaurants with 84 complaints or 13.5 per cent of the total; tailors with 67 complaints or 10.8 per cent; dry goods, clothing and department stores with 65 complaints or 10.4 per cent; and laundries with 61 complaints or 9.8 per cent of the total complaints filed.

During the fiscal year ending June 30, 1912, 72 prosecutions were conducted by the Bureau against employers who persisted in working their women over eight hours per day or more than forty-eight hours per week. We succeeded in obtaining 44 convictions, while 17 cases were dismissed and 11 cases were still pending at the close of this fiscal year. The work involved in the prosecution of an employer under the eight hour law is greater than one is at first led to assume. As a rule it is necessary to detail two men to keep a watch on the number of hours the women are working. This is done in order to avoid calling on the women to testify against their employer, as such testimony would cause their discharge and perhaps prevent their obtaining employment at any other place. In other words, they would be black-listed.

The most persistent violators of the eight hour law are the French laundries, and when prosecuted they invariably present the same defense, namely, that the women were ironing their own clothes after they had completed their eight hours of employment.

During the course of our inspection of over 5,000 factories and stores, we requested the number of women that had been discharged on account of the eight hour law; also the number of women that had been added. The replies to these questions were not altogether satisfactory on account of the apathy of some of the employers. Some of the employers stated that they had discharged part of their female employees when we had reason to believe otherwise, while some were not willing to admit that they had discharged any women or that they had been compelled to add some. We submit the following figures merely for what value they may have in showing the effect of the eight hour law upon the women employed in factories and stores.

Effect of the Eight Hour Law on Women employed in Factories and Stores (as reported by employers).

City.	Number of women discharged.	Number of women added.
San Francisco	10	15
Los Angeles	20	162
Oakland	10	31
All other places	21	25
Totals	61	233

A special investigation of hotels was made, which included the principal hotels in San Francisco and Los Angeles and their vicinities. The results of this investigation are given in the following table. and we believe they are a good indication of the effect of the eight hour law upon women employed in hotels.

Reports on 49 hotels in San Francisco and vicinity, employing a total of 726 women, showed that only seven women had been discharged and 75 women had been added as a result of the eight hour law. The wages of 15 women had been reduced in one hotel.

Reports on 34 hotels in Los Angeles and vicinity, employing a total of 680 women, showed that 24 women had been discharged and 76 women added, while 65 women in two hotels had had their wages reduced.

Effect of Eight Hour Law on Women employed in Hotels in San Francisco and vicinity.

Office number.	Total number of women employed at present	Number discharged.				Number added.				Number having wages reduced
		Total	Occupation.			Total	Occupation.			
			Maids	Waitresses	Clerks		Maids	Waitresses	Clerks	
1	97					11	*9	2		
2	92					15	15			
3	70					5	4		1	
4	55	1			1					
5	47					7	2	4	1	
6	33					5	2	3		
7	34					1	1			
8	20					4	3		1	
9	18					4	2	2		
10	17					3	2	1		
11	17					4	3		1	
12	15					1	1			15
13	14					3	1	2		
14	14					2	2			
15	12									
16	12					1		1		
17	11					2	2			
18	11					4	3		1	
19	10									
20	10									
21	9					1	1			
22	9					2	2			
23	8									
24	7									
25	4									
26	2									
27	6									
28	1									
29	1									
30	3									
31	3									
32	5									
33	1	6	6							
34	3									
35	5									
36	4									
37	4									
38	3									
39	3									
40	2									
41	5									
42	3									
43	2									
44	2									
45	5									
46	3									
47	4									
48	7									
49	3									
Totals	726	7	6		1	75	55	15	5	15

Effect of Eight Hour Law on Women employed in Hotels in Los Angeles and vicinity.

Office number.	Total number of women employed at present	Number discharged.				Number added.				Number having wages reduced
		Total	Occupation.			Total	Occupation.			
			Laundresses	Waitresses	Clerks		Maids	Waitresses	Clerks	
1	102									
2	65	15	15			10	5	5		
3	63	2			2	10	5	4	1	
4	50					8	4	4		
5	46	4		*1	3	5		5		35
6	35					6	3	2	1	
7	37					10	4	6		
8	36	2			2	4	2	2		30
9	21					4	2	2		
10	20					2	2			
11	19	1		1		2	2			
12	16					2	2			
13	15									
14	16					1	1			
15	13					1			1	
16	15					3	2		1	
17	12					2		2		
18	10					1	1			
19	9									
20	3					1	1			
21	6									
22	5									
23	7					1	1			
24	8									
25	5					1	1			
26	6									
27	3									
28	7									
29	3									
30	5									
31	7									
32	6					2	2			
33	6									
34	3									
Totals	680	24	15	2	7	76	40	32	4	65

*Head waitress discharged.

OCCUPATIONAL DISEASES.

By act of the legislature of 1911 (Chapter 485, Statutes of 1911), every medical practitioner in the State of California is required to report to the State Board of Health all cases which he attends of persons "whom he believes to be suffering from lead, phosphorus, arsenic or mercury or their compounds, or from anthrax, or from compressed-air illness, contracted as a result of the nature of the patient's employment." The medical practitioners receive 50 cents for each case reported. The State Board of Health is directed to transmit a copy of the practitioner's report to the Bureau of Labor Statistics.

During the fiscal year ending June 30, 1912, only ten cases of occupational diseases were reported, five of which resulted in death. This number is far too small to be of any statistical value. It is undoubtedly true that many physicians have failed to report the cases coming under their observation, but at the same time it is also a fact that there are only a small number of industries in this State, in which the employees are particularly liable to contract these diseases. At the present time there are only two white lead factories in the State.

Record of certificates of occupational disease filed during fiscal year ending June 30, 1912.

Office number.	Sex.	Race or color.	Conjugal condition.	Occupation.	Industry.
1	Male	White	Single	Linotype operator	Newspaper.
2	Male	White	Married	Mine superintendent	Metal mine.
3	Male	White	Single	Printer	Printing shop.
4	Male	White	Single	Laborer	White lead works.
5	Male	White	Single	Laborer	White lead works.
6	Male	White	Single	Laborer	White lead works.
7	Male	White	Married	Painter	Painting.
8	Male	White	Single	Carriage painter	Carriage painting.
9	Male	White	Married	Carriage painter	Carriage painting.
10	Male	White	Married	Painter and paper hanger	Painting and paper hanging.

	Causing death.		Causing illness.	
Office number.	Cause of death.	Contributory cause.	Diagnosis.	Prognosis.
1			Lead poisoning with wrist drop.	Favorable.
2	Acute hepatitis	Chronic lead poisoning.		
3	Cerebral apoplexy	Chronic lead poisoning.		
4			Lead poisoning	Gradual recovery.
5			Lead poisoning	Favorable.
6			Lead poisoning	Favorable.
7	Chronic diffuse nephritis.	Chronic lead poisoning.		
8	Toxæmia	Chronic lead poisoning.		
9	Chronic interstitial nephritis.	Chronic lead poisoning.		
10			Lead poisoning	Gradual recovery.

IMMIGRATION

With the opening of the Panama Canal a new labor problem will confront us in this State, namely, that of restricting the immigration that will come to our shores. The first step in this direction was taken on August 20, 1912, when an Immigration Commission was appointed by the Governor. The immigration problem is one that particularly affects the conditions of labor and we should be prepared to meet the problem when the Canal is opened. The position of this bureau is best stated in an address by the Commissioner before the conference of State Immigration, Land and Labor Officials, with representatives of the Division of Information, Bureau of Immigration and Naturalization, Department of Commerce and Labor, which was held in Washington, D. C., November 16 and 17, 1911.

The following is a copy of the above mentioned address:

MR. MCLAUGHLIN. *Mr. Chairman and gentlemen:* I am representing in this conference the State of California. The title of the office to which I have been recently appointed is that of Commissioner of the Bureau of Labor Statistics. At the outset, let me state that in California I believe we have a situation different from any I have heard described here to-day. California, until recently, has been a state of large land holdings, due to the fact that when the United States acquired its western possessions it recognized as valid the Spanish land grants. These land grants — of which there are about 600 — contained immense areas. When agriculture succeeded gold mining, some of the owners turned to cultivating these lands, while others held them and are still holding them until such time as they shall be divided up into small farms. This led to two problems that have confronted the people of California for the past thirty or forty years. The former called for a large amount of cheap labor, while the latter prevented the American farmer from the Eastern States and the European immigrant agriculturists from obtaining small acreages at reasonable prices.

The influx of the Chinese, after the Burlingame Treaty, gave the farmers the cheap labor they desired, and I believe it was about the cheapest labor that could be obtained at that time. The cheapness of this labor, the high quality of the products raised and the successful sale of same increased the land values of these farms, and also those land grants that were being held, until the price of both had risen to such a point in many sections of the State that it was practically impossible for the average man to go into the business of farming. Then came the exclusion of the Chinese and the subsequent demand for some other labor to take his place. The Japanese became the successor of the Chinese in farm labor, but let it be understood at this time that the people of the State of California did not desire the Japanese, but were compelled to accept him in lieu of any other.

Probably the most important point in farming in California, and the one I desire to call your particular attention to, is that it is highly specialized. It was early demonstrated that certain crops could be grown to great advantage in certain localities, with the result that practically everybody in that locality went into the raising of that particular crop, thus calling for a large amount of labor during the season when such crop was harvested. This condition accounts for the employment of the Japanese. The Japanese is a migratory laborer, whereas the white man seeks to live where he works. The Japanese who is picking cherries in Vaca Valley (which is in the northern part of the State), say in May, will follow the different seasons and crops until he is picking oranges in the southern part of the State (over 500 miles away) during the months of December and January. The Japanese are under a directorate that simply shifts them from place to place and from crop to crop, with the result that they obtain a maximum amount of employment during the year. Of course there are certain classes of work which are distasteful to the white man and to which the Japanese is adapted, namely those which must be performed in a stooping or squatting position, such as picking berries, cutting asparagus, etc. No alien race has supplanted the white man in our grain fields. Even on land owned and operated by Japanese, the white man handles the horses and does the cultivating, but the balance of the work is done by the Japanese.

In the past year California has come face to face with a new problem — that is, the replacement of the Japanese. Since the adoption of the agreement between the United States and Japan in 1907, the Japanese laborer has to some extent remained away temporarily from our shore and the number of Japanese farm laborers has diminished. We must now look forward to Europe to obtain our supply of farm labor. We have already started to solve this question by the employment of Greeks. Thousands of Greeks have come to California in recent years to be employed in railroad construction work, but owing to lack of this class of work during the past year and dissatisfaction of condtions under which they were laboring they were induced to take up agricultural work, principally grape picking. In the early part of this year a shortage of help was reported in the Fresno grape district. In many instances Japanese contractors announced that they could not fulfill their contracts for the picking of grapes, owing to their failure to obtain a sufficient number of their own countrymen. Through the efforts of a society into which the Greeks have been recently organized, and who have established a free employment agency in the city of Fresno, about 2,000 Greek laborers were brought into the Fresno district and picked a large part of the crop. Even some of the Japanese employed these Greeks. From reports received so far the Greeks have proven satisfactory and have been a positive influence in driving the Japanese out of this district. The shortage of help for the harvest has been universal throughout the State. Just before my leaving, I called upon an agency in Sacramento, representing the same Greek organization, and requested them to send 200 to 300 men into Butte County for the purpose of picking oranges, as I had heard of a shortage of labor in that vicinity.

An important point regarding white farm labor in California is that they are not shown the respect that, in my estimation, is due them. This is accounted for largely by the fact that the short period of time they work on any one farm does not seem to justify the owner in providing accommodations for them, with the result that they are required to carry their blankets on their backs and use the sky for a roof. This condition is not conducive to the development of a good class of farm labor, but rather to a class of "hobos." For six months of the year they have the sheriff chasing them out of town for refusing to work and the other six months they get chased out of town for asking for work. Personally, I sympathize with the man who is migrating from place to place, sometimes looking for work and at other times trying to dodge the tax collector or the sheriff. Perhaps I cannot help that, owing to the fact that my life has been spent in close contact with the man who toils.

The opening of the Panama-Pacific canal will probably solve the farm labor problem in California, but at the same time will place us on guard against the possible influx of undesirable immigrants from southern Europe, Asia Minor, and Africa. For an additional cost of from $7.50 to $10.00, the immigrants that are now pouring into New York will be landed in San Francisco. California wants immigrants to cultivate its soil, but it wants the good, sturdy peasants of Europe, not the people from seaport towns who bring with them all their vices and no virtues and who congregate in our large cities and form colonies, in which they maintain their own habits and customs and are a continual source of annoyance to our police departments. But I realize that in order to obtain the class of immigrants I describe it will be necessary for us to look after their interests upon their landing on our shores. We have no Bureau of Immigration in California. At the last session of the legislature a bill was introduced providing for a free employment bureau, but owing to the fact that it did not carry with it an appropriation, the Governor did not see fit to sign it. However, we have hopes that it will be provided for by the next legislature, and I know the Governor is inclined to favor it as an experiment. A free employment bureau would be of invaluable assistance in securing work upon the farms of our State for the incoming immigrants. An effort should be made, however, to have the immigrants arrive during the months of the harvest — say from May to August. It would then be a comparatively easy task to secure employment for them in the agricultural and horticultural districts. The immigrants once placed in the fields, the question would solve itself. The industrious immigrant could acquire a small farm in a few years under the proper schemes of colonization, which are now under way, dividing up the large land holdings of our State. These people in turn would develop an agricultural community, which in time would solve the farm labor problem, with the adoption of a scheme of varied crops within certain localities and the gradual doing away with high specialization. But if the immigrants arrive after the harvest they will associate with their own countrymen in the large cities, with the result that after being there for six or eight months it will be practically impossible to place them upon the farms. Once given a taste of city life, they would never turn to agricultural pursuits. I believe this is the experience of all the large eastern ports of entry.

My Bureau, I am satisfied, is willing in every way possible to give you all the information that can be had and to lend any and every assistance possible to this Division. I believe myself — though along lines suggested by my friend, Mr. Nugent — that without the Government or State lending first aid to these people as they arrive — something to sustain them at least for the first year to get them established — it will be almost useless to send them out for a month or two, where they meet the conditions that I have related, and then let them go back into the city and throw them on the hands of the municipality.

At this time of the year they come from all over the State of California into the city of San Francisco. We have a large county hospital and an almshouse there, and the inhabitants of these institutions jump 700 or 800 as soon as the winter months come on. Possibly San Francisco is better situated in that respect than some other cities, but such is the case, and they all come that way.

I might add, further, that I am one who believes in restricting immigrants to a certain extent. Mr. Gompers, in his report at the last convention of the American Federation of Labor, had this to say regarding immigration:

> "The sixty-first Congress during the short session refused to take up for consideration the immigration bill, requiring an educational test for immigrants, by Mr. Gardner of Massachusetts, which had been placed on the discharge committee calendar in the previous session, and it refused to take up for consideration the bill of Mr. Hayes of California, introduced by him for the purpose of obtaining legislation excluding Asiatic immigrants.
>
> "The Commission appointed by the fifty-ninth Congress, February 29, 1907, to inquire into the general subject-matter of immigration, made its final report to Congress December 5, 1910. The Commission recommended several methods of restricting immigrants, among which were:
>
> (1) 'The exclusion of those unable to read or write in some language.
>
> (2) 'The reduction of the number of each race arriving each year to a certain percentage of the average of that race arriving during a given period of years.
>
> (3) 'The exclusion of unskilled laborers unaccompanied by wives or families.
>
> (4) 'The limitation of the number of immigrants arriving annually at any port.
>
> (5) 'Material increase in the amount of money required to be in the possession of the immigrant at the port of arrival.
>
> (6) 'Material increase of the head tax.
>
> (7) 'The levying of the head tax so as to make a marked discrimination in favor of men with families.'"

Now, any of these points I believe would be drawing a line that could properly be exercised, because as it stands at present a great many of the larger corporations are bringing immigrants into this country and treating them as nothing more than common slaves. Those of us who have been around know that condition, and God forbid that it be allowed to continue, because I can foresee to what it is going to lead.

In speaking of migratory laborers, President Gompers has this to say, and there is a good deal of truth in it, as I think you will agree:

> "Resolutions 44 and 86 of the St. Louis Convention, relating to migratory laborers, was referred by it to the Executive Council. By reason of my then contemplated visit to the Pacific Coast States, the Executive Council referred the subject-matter to me for investigation. I have seen and spoken with some of the migratory laborers and their spokesmen, and held prolonged conferences with the representative labor men of the Pacific Coast who have given this subject of migratory and casual labor their closest observation, and the following is the result of my investigations, with the recommendations I submit for your consideration and action.
>
> "The lot of the migratory laborer in the United States to-day is in some points worse than slavery. The slave was at least sufficiently well nourished to enable him to perform his allotted tasks. He was assured of a shelter in case of illness; of as much care as a thrifty farmer will give to his horse or

> other domestic animals. But the very large proportion of unskilled or casual workers who at the present time usually find employment only on short jobs or at season work suffer a precarious existence. As they move from place to place, they often go hungry, and while at work their food is usually of a poor quality, ill prepared. Many of them do not earn enough to establish a home or to pay for medical attendance when sick or suffering from accidents. The character of much of the work performed in the United States does not permit of the steady employment of a regular body of men. Railroad extension work, the construction of bridges and highways, much work in lumbering, waterway, canal, and drainage, and in the building trades, which are mostly carried on in the less inclement seasons of the year, are characterized by idleness for months together of tens of thousands of men. In agriculture, large bodies of men are employed during the seasons of ploughing, seeding, planting, and harvest, only to be left without steady work the rest of the year. In all, it is difficult to estimate how many men are thus living in the United States to-day, but the number reaches into the millions."

He goes on to explain what the Pacific coast has to fear with the opening of the canal, and I thoroughly agree with him.

I desire to thank this Bureau for the call, and hope to be able to render you any and every assistance when called upon. [Applause.]

THE CHAIRMAN. Have you in your brief period of activity in your Bureau had any knowledge of the Swiss and Italian colonies that are out there?

MR. MCLAUGHLIN. The Italian in California is very thrifty, more so, I dare say, than in any other state in the United States. With the Italian we have had little or no trouble. There are some of them on railroad work, but many of them have taken to farming, particularly in the grape and wine business, and we have no cause to complain in any manner of the Italian.

The Swiss has largely taken to dairying, and we have never had any trouble whatever with them. They have colonies in some sections of the State. The Swiss is entirely in the dairy business; the Italian is largely in the fruit, vegetable and produce business.

MR. TRENOR. Mr. Chairman, I should like to make an observation with reference to the passage just read from Mr. Gompers' report, in which he says that the Immigration Commission recommended the various measures of restriction. I think a perusal of the report will show that they did not recommend them, but pointed them out as a means by which restriction could be had, without specifically recommending those things.

MR. MCLAUGHLIN. I read from his report.

MR. TRENOR. I understand, but I think he is mistaken in that, although afterwards it was formulated into a bill.

THE ALASKA SALMON CANNERIES.

The queston of the payment of wages to the men employed in the Alaska salmon canneries has been one of great annoyance to the Bureau during the past two seasons. These men are hired in San Francisco during the months of March and April and are shipped north to work in the salmon canneries, located on the coast of Alaska. They are returned during the months of August and September and are paid off in San Francisco for the full season's work. At the time these men are paid off the real trouble begins. Innumerable disputes arise on account of the deductions that are made for various items—principally for gambling debts, liquor and food. In order to fully realize the situation, it will be necessary to explain the methods resorted to in the hiring of men to work in these canneries. As a rule, the company owning or operating the cannery enters into a contract with a Chinese contractor, whereby the Chinese contractor agrees to furnish all the help necessary to clean, pack, cook, label and box all the salmon delivered to him at a certain cannery. The company agrees to pay the Chinese contractor a certain amount for each case of salmon packed and guarantees a minimum number of cases. If no salmon is packed—by reason of the failure to deliver the fish at the cannery, which may arise when the salmon are not running—the Chinese contractor receives his contract price. The Chinese contractor guarantees to deliver a certain number of men—necessary to operate the cannery—and is penalized in the sum of $250 for each man he is short on the day of the sailing of the company's ships As soon as the Chinese contractor signs up with the company, he sublets his contract to several other sub-contractors, consisting chiefly of Japanese, Filipinos, Porto Ricans and Mexicans. These sub-contractors go among their own people and hire them for the season at a fixed sum, usually from $160 to $180. This sum is, as a rule, the full amount that the Chinese contractor has allowed the sub-contractor, but the sub-contractor figures to make his money from the privileges of running the "slop chest"—which is the term applied to the store—and from the gambling. In addition the sub-contractor draws his wages, and it is the general practice for a sub-contractor to work along with his men at the cannery. The Chinese contractor advances $40 for each man to the sub-contractor. The sub-contractor turns this amount over to his men, but not directly. Usually he permits them to go to some store which he selects—where they can purchase clothes—and he often pays their room and board up to the time of sailing, for it must be understood that the hiring of men goes on for months before the ship sails. When the men are on board the ship, whatever is left of the $40 advance money, after the above deductions have been made, is paid to them. A rather interesting deduction is the one of $2.50 to $5.00 per man for services of detectives and watchmen, who are employed by the sub-contractor to see that the men do not get away before the ship sails. Here we have the unique position of a man being obliged to pay for the privilege of being watched so that he cannot run away. The Chinese contractor furnishes the food on the voyage to and from and during the time the men are at the cannery. This food consists of the regular Chinese fare, namely, rice, kelp, tea, and sometimes beans, except that at the cannery, fish is often given to the men. The food question causes considerable trouble, owing to the fact that the men do not relish it and are compelled to buy American foods from the ''slop chest'' or from the Chinese stores. On the return to San Francisco, the company pays the Chinese contractor the total amount due him under the terms of the contract, and the Chinese contractor in turn pays to the men the amount agreed upon, less the charges that appear against them in an account rendered by the sub-contractor. In past years, the Chinese contractor would turn the money over to the sub-contractors for payment to the men, but it became a general practice for the sub-contractors to abscond with the money, and leave the men clamoring at the doors of the Chinese contractor for their wages.

During the past few years the offices of this Bureau have been besieged by hundreds of these cannery hands upon their return from Alaska. These men present a multitude of claims, which involve questions of false or exorbitant deductions on their wages. Many of these men are returned to San Francisco without a cent due them after a season's work, all of it having been charged against them for food or gambling debts, incurred at the gambling tables operated on the ships by the sub-contractors. While the Bureau has been successful in getting redress in many cases, still our laws at present are inadequate to cover the situation. And it is important to note that the situation is a grave one, for it must be borne in mind that, when you cast several thousand irresponsible men who are penniless—or almost penniless—adrift in this city, after they have toiled for five or six months—you add a large factor to the criminal element of the community.

The following are the totals copied from a pay roll and gives a good idea of the causes that lead to the trouble in the settlement of the wages of the cannery hands in Alaska.

Analysis of a Sub-Contractor's Payroll.

Total number of men hired	138	
Total amount of wages		$22,495 00
Less: Advance of $40 per man	$5,520 00	
Advance for gambling	6,611 80	
Slop chest (food, etc.)	4,859 35	
Chinese store	731 50	
Total deducations		$17,722 65
Balance of wages due at end of season		$4,772 35
Average wages per man		$163 00
Average deduction per man		128 42
Average payment per man in San Francisco		$34 58

The following table shows the number of cannery hands and fishermen shipped from San Francisco during the season of 1912. What has been said in this chapter does not apply in any degree to the fishermen. The latter have a strong organization and are paid off under the supervision of the United States Shipping Commissioner. It applies only to cannery hands which consist chiefly of Chinese, Japanese, Filipinos, Porto Ricans, Mexicans, Spanish, Negroes and a sprinkling of many other races.

MEN SHIPPED FROM SAN FRANCISCO TO ALASKA SALMON FISHERIES, SEASON OF 1912.

Cannery hands	4,954
Fishermen	1,965
Total	6,919

There is also submitted a table showing the exorbitant prices charged for food, etc., for it will be remembered that the men are only furnished with Chinese grub and crave these American foods and luxuries, which they are compelled to buy from the "slop chest" conducted by the subcontractors.

COMPARATIVE PRICES OF VARIOUS COMMODITIES.

Commodity.	Price charged by sub-contractor.	Price in San Francisco.
Apricots, canned, per can	35 cents	15 cents
Beef, canned, per can	35 cents	15 cents
Beef, corned, per can	35 cents	15 cents
Beer, per bottle	50 cents	10 cents
Chocolate, per can	75 cents	35 cents
Cigars, each	10 cents	2½ cents
Clams, per can	25 cents	10 cents
Crabs, per can	35 cents	15 cents
Crackers, per box	30 cents	10 cents
Gum, chewing, per package	10 cents	5 cents
Jellies, per jar	25 cents	10 cents
Marmalade, per jar	30 cents	15 cents
Milk, condensed, per can	25 cents	10 cents
Peaches, canned, per can	35 cents	15 cents
Raisins, per package	35 cents	15 cents
Sardines, small, per can	15 cents	5 cents
Sardines, large, per can	50 cents	20 cents
Sausages, small, per can	25 cents	10 cents
Sausages, large, per can	35 cents	15 cents
Soda water, per bottle	15 cents	5 cents
Sugar, per package	25 cents	10 cents
Tobacco, chewing, per plug	10 cents	5 cents
Tobacco, smoking, per package	15 cents	5 cents
Tomatoes, canned, per can	35 cents	10 cents
Pineapple, canned, per can	35 cents	15 cents

During a recent investigation, we had occasion to take the testimony of several men who had been employed in the Alaska salmon canneries, and the following will give a fair idea of the conditions prevailing in this industry:

SWORN TESTIMONY OF PEDRO BARBOSA, ON LABOR CONDITIONS IN THE ALASKA SALMON FISHERIES.

Q. What is your name?
A. Pedro Barbosa.
Q. Where were you born?
A. Porto Rico.

Q. Who hired you to go to Alaska?

A. Marscelina Martinez.

Q. How much did he agree to pay you for the season's work?

A. $160.00.

Q. How much advance money did he give you?

A. $35.

Q. How much advance money did he charge you with?

A. $40.

Q. Why was there a difference of $5.00.

A. The $5.00 was commission.

Q. On what ship did you sail?

A. On the St. Katherine.

Q. On board the ship, who fed you?

A. The Japanese.

Q. What did they give you to eat?

A. Rice and some kind of stuff like seaweed—kelp—and tea.

Q. Did you get enough water to drink?

A. Just got water to wash my face. Asked the Japanese for water but did not get any to drink.

Q. When you got to Alaska, who did the cooking?

A. Japanese.

Q. What kind of food did you get there?

A. The same kind. Only they had fish, cooked in "soya" and I could not eat it.

Q. How many hours did you have to work in the cannery?

A. Get up at three o'clock in the morning and work till 6 and 7 at night.

Q. What kind of work did you do?

A. Washing cans in lye.

Q. Did you lose any time through sickness?

A. No, sir.

Q. What did they pay Indians?

A. I heard they pay $3.50 a day. They don't pay him money, but give him grub in the American store, and the company charges the Jap $3.50 a day for grub.

Q. Did they sell any whisky or liquor on the ship.

A. Yes, sir. Marscelina and the Japanese both sold liquor.

Q. Did they sell whisky at the cannery?

A. Yes. Marscelina and the Jap did.

Q. What did they charge you for whisky?

A. A soda water bottle full cost $1.00 from Marcelina, and 75¢ from the Japanese.

Q. Was there gambling on board ship?

A. You "betcher life."

Q. What games were they running?

A. Monte and poker.

Q. Was you playing?

A. Yes, I played myself. I ran the game. I paid Marscelina $200.00 for the privilege of running the game.

Q. How much did the boys lose in the game?

A. Some boys lost as high as $50.00 and $60.00.

Q. How were these losses charged up?

A. Played for tickets.

Q. Who furnished the tickets.

A. Marscelina.

Q. Where were these tickets payable?

A. Mascelina cashed the tickets in San Francisco.

Q. How did the men pay for the tickets?

A. They were charged against their wages.

Q. How much did Marscelina make on the gambling?

A. He made $200.00.

Q. Did the Japanese run a gambling game too?

A. Yes, they kept a different gambling table.

Q. Did the Porto Ricans play at the Japanese table?

A. No, the Japanese came over and played at the Porto Rican table.

Q. When you came back to San Francisco, how much money did you have coming to you?

A. $193.90.

Q. How is this amount so large?
A. I made up the difference in gambling.
Q. How much did you spend for groceries, etc?
A. About $35.00.
Q. How long have you been in the United States?
A. Since 1901.
Q. Are you a citizen of the United States?
A. Yes, sir.
Q. How many trips have you made to Alaska?
A. I made four trips; three for Marscelina and one for the Alaska Packers.
Q. Do you reside in San Francisco?
A. Yes, sir.
Q. What is your address?
A. 1316 Kearny street.
Q. That is your own place?
A. Yes, sir.
Q. Do you reside there with your family?
A. Yes, sir.
Q. At what cannery did you work?
A. The Ugashik, owned by Frank B. Peterson.
Q. Do you know whether Marscelina had to pay the Japanese for the privilege of gambling?
A. I don't know.

SWORN TESTIMONY OF ENRICO BONAPARTE ON LABOR CONDITIONS IN THE ALASKA FISHERIES.

Q. What is your name?
A. Enrico Bonaparte.
Q. Where were you born.
A. Porto Rico.
Q. Are you a citizen of the United States?
A. Yes, sir.
Q. Who hired you to go to Alaska?
A. Marscelina Martinez.
Q. What did he hire you as?
A. I was hired as bookkeeper; also to work washing cans in lye.
Q. What compensation were you to receive?
A. Was to receive $160.00 for the season, and 25 per cent of all the receipts from the sale of food and liquor, and from gambling.
Q. On what ship did you sail?
A. St. Katherine.
Q. When did it sail from San Francisco?
A. On April 20, 1912.
Q. Were you to get the same food as the other men?
A. Just the same.
Q. What food did you get?
A. Rice, tea, same as other men.
Q. Was there any gambling on the ship?
A. Yes.
Q. Who ran the gambling table?
A. Pedro Barbosa.
Q. Did you do any gambling yourself?
A. Yes, sir.
Q. Did you lose any money?
A. I won about $50.00.
Q. What did you gamble with?
A. First with money, and afterwards with the tickets I had won.
Q. What game did you play?
A. Monte.
Q. Who was dealing?
A. Sometimes I dealt, sometimes Barbosa and sometimes Martinez.
Q. Did you keep the books showing the number of tickets?
A. No, Martinez marked the books for the gambling tickets and I marked for the food and liquor.

Q. Did you sell whisky and liquor up there?

A. Yes, sir.

Q. How much did you charge for it on the ship?

A. $1.50 for a big bottle on the ship; up at the cannery $1.00 for a small soda water bottle full.

Q. Did you do any gambling at the cannery?

A. No.

Q. Do you know how many, or how much worth of gambling checks Martinez had?

A. Between $400.00 and $500.00 worth.

Q. How much did Martinez charge Barbosa for the gambling table?

A. $200.00.

Q. How much did you have coming to you when you came back to San Francisco?

A. $183.85 for wages and gambling.

Q. How much did you have to pay for food?

A. I got most of my food by giving the Americans liquor.

Q. Could you eat the Japanese food?

A. No.

Q. At what cannery did you work?

A. Ugashik.

Q. Who runs this cannery?

A. Frank B. Peterson & Co.

Q. What were the names of the Japanese contractors?

A. Kaipou and Sakamake.

Q. Where is their place of business?

A. They keep their general merchandise store in San Francisco. I do not know the address.

Q. Where do you live?

A. 1316 Kearny street.

Q. Is your home in San Francisco?

A. Yes, I live here all the time.

Q. Has Marscelina settled up with you for your 25 per cent yet?

A. Not yet.

Q. About how much is coming to you on commission?

A. 25 per cent of $200.00 for gambling, and 25 per cent of $608.00, profit from the store for the sale of food and liquor.

Q. How many trips have you made to Alaska?

A. Nine trips. Seven times with Marscelina and twice for the Alaska Packers' Association.

Q. Are the conditions any worse now than they were before?

A. Conditions the same.

SWORN TESTIMONY OF RICHARD FELICIANO ON LABOR CONDITIONS IN THE ALASKA SALMON FISHERIES.

Q. What is your name?

A. Richard Feliciano.

Q. Where were you born?

A. Porto Rico.

Q. Who employed you to go to Alaska?

A. Marscelina Martinez.

Q. Where did he hire you?

A. In San Francisco.

Q. At the time he hired you, what did he agree to pay you?

A. $160.00 for the season.

Q. How much advance money did he give you?

A. $35.00.

Q. How much advance money did he charge you up with?

A. $40.00.

Q. Why this difference of $5.00? Did he take off $5.00 for getting you your job?

A. I guess so. Yes.

Q. Did you receive the $35.00 advance money in actual cash?

A. Yes, $35.00 in cash. He paid me in my hand, and afterwards I paid the storekeeper.

Q. When did you get the $35.00, while on shore?
A. On board ship.
Q. Where did you buy your supplies, on board ship or on land.
A. On shore.
Q. How is it it you paid on board ship?
A. The storekeeper came on board and I paid him for the goods.
Q. Who fed you on the ship?
A. The Japanese.
Q. What did they give you to eat?
A. Rice, kelp and tea.
Q. Did you get the same food every day?
A. Every day; sometimes beans—about two days on the trip.
Q. Did you have anything else to eat.
A. Yes, I had to buy it myself.
Q. Did they give you enough water to drink?
A. No.
Q. How much water a day?
A. One glass for a man a day. Some days none.
Q. Some days you could get none at all?
A. Some days no water.
Q. Did you make any complaint about the water?
A. No.
Q. Did any of the boys complain?
A. Some asked for water. Sometimes they got more and sometimes no water.
Q. What did you have to drink?
A. I went to the white kitchen.
Q. What did the others do, buy some?
A. No, you could not buy water on board.
Q. When you got to Alaska, what cannery did you go to?
A. Ugashik Cannery.
Q.. Who owns this cannery?
A. Frank Peterson is the general agent.
Q. Does this cannery belong to the Alaska Packers?
A. No. To the Red Salmon Canning Company.
Q. When you got to Alaska, where did they house you—where did you sleep?
A. In bunk houses.
Q. Who supplied the food while you were in Alaska?
A. Japanese.
Q. What did they give you to eat in Alaska?
A. Same thing, but some days got fried salmon. When we worked hard, sometimes we got salmon twice a day or three times.
Q. Did they sell any liquor or whisky aboard ship?
A. I don't know; I didn't buy any.
Q. Did they sell any whisky or liquor up at the cannery?
A. I didn't see any sold.
Q. What were the hours of work?
A. Well, sometimes we worked 15 hours; sometimes 10, 12, 13, 14. Some days three or four hours. If the fish were running heavy, we had to work hard.
Q. Were you sick while in Alaska?
A. No.
Q. Do you know how much the Indians got up there?
A. No, I do not know.
Q. Did you hear or ask any Indian?
A. No.
Q. Do the Indians get better food than the men sent from San Francisco?
A. Oh, sure, the Indians get better food.
Q. Do they get regular white man's food?
A. Some of them got the same thing.
Q. How much money did you have when you landed in San Francisco?
A. $65.00.
Q. What did all the rest of your money go for?
A. I owed some of this money to somebody else.
Q. Did you gamble?
A. No.
Q. Was gambling on board?
A. Yes, but I don't gamble.

Q. Why did you come back with only $65.00?

A. Most of the difference went for to buy food.

Q. Was there gambling on board the ship?

A. I saw some gambling but I don't know if it was for money, they played with poker chips.

Q. Did you see them use any tickets?

A. I am not sure, but there was gambling on board.

Q. What was the name of the ship you sailed on?

A. Saint Katherine.

Q. What day did you leave San Francisco?

A. April 20, 1912.

Q. When did you land in San Francisco?

A. September 8, 1912.

SWORN TESTIMONY OF PETER HUNTER ON LABOR CONDITIONS IN THE ALASKA SALMON FISHERIES.

Q. What is your name?

A. Peter Hunter.

Q. Where were you born?

A. Charlotte, N. C.

Q. By whom were you hired?

A. Lino took me to the Chinaman, Quong Ham Wah, who hired me.

Q. Was Lino your boss?

A. Yes, sir.

Q. Why did he take you to the Chinaman?

A. He said he had all the men he wanted, but would take me up with the Chinese gang.

Q. What did he agree to pay you for the season's work?

A. Said $160.00 for general work, and if I did extra work would get $20.00 more.

Q. On what ship did you sail?

A. The Standard.

Q. How much advance money did you get?

A. $40.00.

A. Was the $40.00 paid in cash?

A. No, sir, only $19.75.

Q. By whom was it paid you?

A. It was paid by Snyder.

Q. Why was there a difference—that is the $40.00 advance money and the amount paid you, namely, $19.75?

A. The difference for supplies and board at Snyder's.

Q. Who fed you on the boat?

A. The Chinese contractor.

Q. What food did he supply you with?

A. Rice, seaweed and tea.

Q. Same fare every day?

A. Yes, sir.

Q. Did you receive any drinking water?

A. No, sir.

Q. Did you ask for any?

A. Yes, sir, every day.

Q. What did they say?

A. Said they did not have enough, and were afraid that it was going to run out.

Q. Who fed you at the canneries?

A. The same Chinese.

Q. What food did you get at the canneries?

A. Same food, except fish, during the fishing season.

Q. What were the hours that you worked at the cannery?

A. 4 a. m. to 9 p. m. during the season.

Q. How long was the season?

A. About two months.

Q. Was there any liquor sold on board the ship?

A. Yes, sir.

Q. Who sold it?

A. Lino and the Chinaman.

Q. Did you buy any?
A. Yes, sir.
Q. What did you have to pay for it?
A. $1.50 a bottle.
Q. Was it regular size bottle?
A. Yes, sir.
Q. Was any liquor sold at the cannery?
A. Yes, sir.
Q. Who sold it there.
A. Lino and the Chinaman.
Q. Did you buy any there?
A. Yes, sir.
Q. How much did you pay for it?
A. $2.75 a bottle.
Q. Was there any gambling on board the ship?
A. Yes, sir.
Q. Who ran the gambling game?
A. A Mexican, for Lino.
Q. What was the Mexican's name?
A. I think his name was Diaz.
Q. Did you gamble?
A. Yes, sir.
Q. What did you play?
A. Black Jack.
Q. How much money did you lose?
A. $50.00.
Q. What did you gamble with?
A. I gambled with checks.
Q. Where did you get the checks?
A. From Lino.
Q. How did you get them?
A. Took them out of my wages.
Q. Did you lose any time through sickness?
A. No, sir.
Q. How much money did you receive on your return to San Francisco?
A. He offered me $4.50.
Q. Why this difference in this amount and $160.00?
A. The balance went for gambling, food and liquor.
Q. How much did you spend for food?
A. About $27.00.
Q. Where do you live?
A. At the Dixie Hotel, Pacific street, between Grant avenue and Stockton street, San Francisco.
Q. Is San Francisco your regular home?
A. No, Fresno.
Q. Have you folks down there?
A. Yes, sir, they live on M street.

SWORN TESTIMONY OF EDWARD SANDERLIN ON LABOR CONDITIONS IN THE ALASKA SALMON FISHERIES.

Q. What is your name?
A. Edward Sanderlin.
Q. Where were you born?
A. Denver, Colorado.
Q. Who hired you to go to the Alaska fisheries?
A. Lino Quisada.
Q. Where is he located?
A. I don't know where he is now.
Q. Where was he at that time?
A. He was living at 1257 Montgomery street.
Q. What did he agree to pay you for the season's work?
A. $160.00 for general work.
Q. Did he have a contract?
A. Yes, sir, from Quong Ham Wah.

Q. How much advance money did he give?

A. $40.00.

Q. Did he give it to you in cash?

A. No. He allowed us to buy clothing, etc., at Snyder's store, Pacific and Grant avenue, and the balance they gave to us on the ship.

Q. Who gave it to you?

A. Snyder.

Q. Was there any money held out for commission for getting you the job?

A. No.

Q. On what ship did you sail from San Francisco?

A. On the Standard.

Q. On what day?

A. 13th day of April, 1912.

Q. In what cannery did you work?

A. Haller Cannery at Ecock.

Q. Who fed you on board the ship?

A. Chinamen.

Q. What food did they give you?

A. Rice, kelp, and tea.

Q. Were you supplied with drinking water?

A. Not a bit.

Q. Did you ask for water?

A. Asked for water every day.

Q. What was said?

A. Said they were figuring on the water running short.

Q. When did you arrive at the canneries?

A. On the 24th day of May, 1912.

Q. Who furnished the food at the canneries?

A. The Chinese contractor.

Q. What food did they give you in Alaska?

A. They gave us rice, same food, with the exception of fish during the season.

Q. You were taken sick on your way up to Alaska, were you not?

A. Yes, sir.

Q. Were you in good health when you left San Francisco?

A. Yes, sir, was passed by physician.

Q. When did you first take sick?

A. After about one week out. First I was taken seasick, then typhoid fever, after about two weeks out.

Q. As soon as you arrived in Alaska, did they put you in a hospital?

A. No, sir.

Q. When did they put you in the hospital?

A. On the second day of June.

Q. Where were in the interim?

A. At the cannery—in bed.

Q. Was a physician aboard the "Standard?"

A. Yes, sir, but he was not a licensed doctor.

Q. Did he diagnose your case as typhoid fever?

A. He did not know what it was, he said he would have to go to a doctor.

Q. How is it they finally came to put you in a hospital?

A. Through the physician saying that I was pretty sick.

Q. Where did they put you in the hospital?

A. At Nulik.

Q. To whom does this hospital belong?

A. I understood it was a government hospital.

Q. Who was the doctor in charge?

A. Dr. French.

Q. When were you discharged from the hospital?

A. June 28, 1912.

Q. When did you go to work again?

A. On the 29th day of June.

Q. Did you work through until the end of the season?

A. No, I was off about five days altogether during the balance of the season.

Q. Were you sick during those five days?

A. Yes, sir.

Q. When did the season close?

A. I think it was the 10th or 11th of August.

Q. Was any liquor sold on board the ship?

A. Yes, sir, whisky and beer.

Q. Who sold it?

A. The Chinaman and Lino, both.

Q. What did they charge for it?

A. Going up on the boat it was $1.75 for a quart bottle.

Q. Did you buy any?

A. I bought one bottle.

Q. Was any liquor sold at the canneries?

A. Yes, sir.

Q. Who sold it there?

A. Same people.

Q. What did they charge for it there?

A. $2.75 a bottle.

Q. Was there any gambling aboard the ship?

A. Yes, sir.

Q. Who ran the gambling game?

A. A Mexican under Lino.

Q. Did you play at all?

A. Yes, sir.

Q. What did they play?

A. Black jack, poker, piute and coon-can.

Q. How much money did you lose?

A. I lost about $25.00 altogether.

Q. Did many of the men gamble?

A. Yes, the largest part of them.

Q. What did they gamble with?

A. With money and with checks.

Q. Where did you get the checks?

A. From Lino.

Q. How did you get them?

A. Whenever we got broke he would issue us checks and charge against our wages.

Q. When you came back to San Francisco, how much money did you have coming to you?

A. My book showed a credit of $67.50, but they presented a hospital bill of $87.50.

Q. This left you indebted to them for $19.20, after a whole season's work?

A. Yes, sir.

Q. About how much money did you have to spend for food?

A. About $48.00.

Q. Where do you live?

A. At the Dixie Hotel, Pacific street, between Grant avenue and Stockton.

DECISIONS AND OPINIONS.

On May 27, 1912, the Supreme Court of the State of California handed down a unanimous decision, upholding the constitutionality of the eight hour law for women. This decision stands out as one of the most progressive decisions rendered in the United States in the matter of labor laws. The decision is printed in its entirety in this chapter.

In the enforcement of the labor laws, this Bureau has often had to call upon the Attorney General for opinions as to the application of certain laws to some particular or peculiar phase encountered. These opinions have been of considerable assistance to the Bureau and really form an important addition to the labor legislation of this State. As a matter of fact, they should be considered as a supplement to our labor laws and we have, therefore, decided to publish them.

The opinions of the Attorney General contained in this chapter, cover the following general subjects:

Opinion No. 2113—Respecting the application of the eight hour law for women to offices; to the handling of perishable goods—other than fruits and vegetables; and to persons working in canneries at work other than that of canning.

Opinion No. 2262—Respecting the application of the labor laws relating to public work, when such public work is done under the provisions of the Vrooman Act.

Opinion No. 2298—Respecting the application of the child labor law to non-resident children employed in walking and talking parts in theatrical performances.

NOTE.—The brief of Ligon Johnson follows this opinion.

Opinion No. 2350—Respecting the application of the eight hour law for women, to women who are stockholders or officers in corporations in which they are employed.

Opinion No. 2383—Respecting the application of the weekly day of rest law to the employees of the city and county of San Francisco.

DECISION OF SUPREME COURT, STATE OF CALIFORNIA, UPHOLDING CONSTITUTIONALITY OF EIGHT HOUR LAW FOR WOMEN.

Crim. No. 1686. In Bank. May 27, 1912.

In the Matter of the Application of F. A. MILLER for a Writ of Habeas Corpus.

Application for writ of *habeas corpus* prayed to be directed against F. P. Wilson, sheriff of the county of Riverside.

For Petitioner—Flint, Gray & Barker and Gray, Barker, Bowen, Allen, Van Dyke & Jutten.

For Respondent—Lyman Evans, District Attorney; Purrington & Adair; William Denman, *amicus curiæ;* G. S. Arnold, of counsel; Thos. F. Griffin and Leon Yanckwich, as *amici curiæ.*

The petitioner applies for release from custody on a charge of violating the provisions of the act of March 22, 1911, forbidding the employment of women in certain establishments for more than eight hours in one day, or more than forty-eight hours in one week. (Stats. 1911, 437.) The specific charge is that on June 12, 1911, he employed and thereupon required Emma Hunt, a female, to work during that day for nine hours in the Glenwood Hotel, as an employee therein. His contention is that the act is unconstitutional and void.

Three grounds are urged in support of this claim: 1. That the restrictions imposed by the statute upon the freedom of contract are in violation of section 1, article I, and section 18 of article XX, of the constitution, and that it is consequently invalid; 2. That the act is special, that it is not uniform in its operation, and that it makes arbitrary discriminations between persons and classes of persons similarly situated contrary to the limitations of sections 11 and 21, article I, and section 25 of article IV of the constitution; 3. That it embraces two distinct subjects, contrary to section 24, article IV of the constitution.

The material parts of the statute are as follows:

"Section 1. No female shall be employed in any manufacturing, mechanical or mercantile establishment, laundry, hotel, or restaurant, or telegraph or telephone establishment or office, or by any express or transportation company in this state more than eight hours during any one day or more than forty-eight hours in one week. The hours of work may be so arranged as to permit the employment of females at any time so that they shall not work more than eight hours during the twenty-four hours of one day, or forty-eight hours during any one week; *provided, however*, that the provisions of this section in relation to the hours of employment shall not apply to nor affect the harvesting, curing, canning or drying of any variety of perishable fruit or vegetable.

"Section 2. Every employer in any manufacturing, mechanical or mercantile establishment, laundry, hotel or restaurant, or other establishment employing any female, shall provide suitable seats for all female employees, and shall permit them to use such seats when they are not engaged in the active duties of their employment."

Section 3 declares it a misdemeanor, punishable by fine or imprisonment, or both, for any employer to require any female to work in any of the places mentioned in section 1 more than the number of hours allowed by the act, during any one day of twenty-four hours.

1. Section 18 of article XX of the Constitution provides that "no person shall, on account of sex, be disqualified from entering upon or pursuing any lawful business, vocation or profession." This section prohibits any discrimination of this kind based solely on distinctions of sex. But, as in case of the other constitutional guaranties, this provision is subject to such reasonable regulations as may be imposed in the exercise of police powers. It does not forbid such reasonable restrictions upon the hours of labor of women as may be necessary for the protection and preservation of the public health. (*Ex parte Hayes*, 98 Cal. 556; *Foster* vs. *Commissioners*, 102 Cal. 490.)

2. Recognizing the importance of personal liberty, our state constitution at the outset declares that all persons have an inalienable right to enjoy life and liberty and to acquire and possess property. (Art. I, sec. 1.) This, necessarily, includes liberty to work for the purpose of acquiring property, or to accomplish any desired lawful object, and liberty to continue that work each day a sufficient time to gain more than is required for the daily needs. Hence comes the right to make contracts to serve and contracts to employ such service. There can be no contract by the employee to serve without a corresponding contract by the employer to hire and receive such service. Therefore, although the act in question provides a punishment only for the employer, its prohibition applies to both and it clearly restricts the liberty of both the employer and the employed, in the specified establishments, to freely contract with each other as to the length of a day's service or to perform such contracts when made. Consequently, it does, to that extent, take away the liberty guaranteed by this provision of the constitution.

Although this guaranty of the constitution is apparently absolute and unqualified, yet it is well established that it is subject to the exercise, by the legislature, of what are known as the police powers of the State.

Says the Superior Court of the United States in *Holden* vs. *Hardy*, 169 U. S. 391: "This right of contract, however, is in itself subject to certain limitations which the state may lawfully impose in the exercise of its police powers," a power which "may lawfully be resorted to for the purpose of preserving public health, safety, or morals, and a large discretion is necessarily vested in the legislature to determine not only what the interests of the public require, but what measures are necessary for the protection of such interests." (See, to the same effect, *Ex parte Whitwell*, 98 Cal. 78; *Ex parte Tuttle*, 91 Cal. 591; *In re Yick Wo*, 68 Cal. 297; *Lawton* vs. *Steele*, 152 U. S. 136.)

Because of the great value to mankind and the consequent paramount importance of the preservation of individual liberty, it is universally admitted and held that the police powers of the legislature are not absolute or unlimited. These personal rights can not be taken away or impaired at the mere will of the legislature, nor at all, unless the public welfare demands it. So far as the effect on himself alone is concerned, each person has the absolute right to judge for himself whether the hard labor which he voluntarily performs is for his best interest or not. The legislature can not judge for persons in this respect and interfere solely to prevent them from injuring themselves by excessive labor. The injury must be of such character and extent and to such a number of persons that it may be reasonably supposed that it will cause injury to others, that is, to the community in general, on, as it is expressed, to the public health and general welfare. (*Lawton* vs. *Steele*, *supra*.)

The means adopted to produce the public benefit intended, or to prevent the public injury, must be reasonably necessary to accomplish that purpose and not unduly oppressive upon individuals. The determination of the legislature as to these matters is not conclusive, but is subject to the supervision of the courts, and if the above qualities are wanting, a law arbitrarily interfering with the right of contract, or imposing restrictions upon lawful occupations, will be held void. (*Ex parte Whitwell*, *supra*; *Lawton* vs. *Steele*, *supra*; *Holden* vs. *Hardy*, *supra*; Tiedman, Police Powers, p. 17; Freund, Police Powers, sec. 63; Am. & Eng. Ency. of Law, 936.) In the language of Justice Harlan in *Mugler* vs. *Kansas*, 123 U. S. 161: "If, therefore, a statute purporting to have been enacted to preserve public health, the public morals or the public safety, has no real or substantial relation to these objects, or is a palpable invasion of rights secured by the fundamental law, it is the duty of the court so to adjudge, and thereby give effect to the constitution." If this were not so, the constitutional guaranties of the personal right to liberty and property would be wholly subject to the will of the majority acting through the legislature.

It is settled, however, that some occupations may have a tendency to injure the health of those engaged therein, that this injury may be so general or extensive as to affect the public health and general welfare, and that in such cases the legislature may, in the exercise of the police powers of the State, enact laws limiting the time of labor therein to eight hours a day. Thus, laws have been upheld restricting to eight hours the daily labor of persons working in underground mines, or in smelters and quartz mills, and the legislative judgment on the subject of the extent and effect of the injury was considered sufficiently supported to be beyond judicial interference. (*Holden* vs. *Hardy*, *supra*; *In re Martin*, 157 Cal. 51; *In re Martin*, 157 Cal. 60.)

So, also, it has been recognized that some occupations followed by women, though less arduous than those generally followed by men, may have such a tendency to injure their health, if unduly prolonged, that laws may be enacted restricting their time of labor therein to ten hours a day. The application of these laws exclusively to women is justified on the ground that they are less robust in physical organization and structure than men, that they have the burden of child-bearing, and, consequently, that the health and strength of posterity and of the public in general is presumed to be enhanced by preserving and protecting women from exertion which men might bear without detriment to the general welfare. (*See Commonwealth* vs. *Hamilton Mfg. Co.*, 120 Mass. 383; *Wenham* vs. *State*, 65 Neb. 394; *State* vs. *Buchanan*, 29 Wash. 602; *State* vs. *Muller*, 49 Ore. 252; *Muller* vs. *Oregon*, 208 U. S. 412; *Whitey* vs. *Blœm*, 153 Mich. 419; *Ritchie* vs. *Wayman*, 244 Ill. 509; *State* vs. *Somerville*, 122 Pac. [Wash.] 324.)

Counsel for the respondent do not advance the proposition that a general restriction of all women to eight hours a day for all work would be a proper police regulation. This precise question is not involved. The act does not limit the time of occupation or exertion by females. It limits only the time for which a female may "be employed," that is to say, engaged in service for another. The time of such service does not usually measure the whole time of daily toil, labor or exertion.

The court must always assume that the legislature, in enacting laws, intended to act within its lawful powers and not to violate the restrictions placed upon it by the constitution. We must take this statute as a law intended for a police regulation to preserve, protect or promote the general health and welfare. As has been already stated, a large discretion is vested in the legislature to determine what measures are necessary for that purpose. Upon this question of fact, as also with regard to the facts upon which a lawful classification and discrimination depends, to be hereinafter discussed, the rule is well settled that the legislative determination that the facts exist which make the law necessary, must not be set aside or disregarded by the courts, unless the legislative decision is clearly and palpably wrong and the error appears beyond reasonable doubt from facts or evidence which can not be controverted, and of which the courts may properly take notice. (*Stockton* vs. *Stockton*, 41 Cal. 159; *Ex parte Tuttle, supra; In re Spencer*, 149 Cal. 400; *In re King*, 157 Cal. 164.) The power of the court to declare a statute unconstitutional is "conceded to be always one of the utmost delicacy in its exercise, and never to be exerted except when the conflict between the statute and the Constitution is palpable and incapable of reconciliation." (*Stockton* vs. *Stockton, supra.*) If reasonable men, upon a consideration of the facts might rationally reach the conclusion that the enforcement of the statute would tend to promote or preserve, in some appreciable degree, the public health or general welfare, the law must be accredited as a proper exercise of the police power, although other reasonable persons might take a different view.

The reasons which justify a restriction upon the hours of employment or labor of women, as distinguished from men, are fully stated in the cases heretofore cited upon that subject and need not be further considered here. Restrictions to ten hours a day have always been upheld. In Illinois a restriction to eight hours in factories was declared invalid. (*Richie* vs. *People*, 155 Ill. 98.) In Washington, a similar law was held valid. (*State* vs. *Somerville, supra.*) In the latter case the woman was employed in a factory for the manufacture of paper boxes.

The question of the effect of the various occupations in which women engage, upon their health, is one upon which medical men differ and with respect to which the prevailing opinion changes from time to time. It has not been, and probably never will be, a settled question, either with respect to the deleterious effects of particular occupations, or the hours of labor which measure the limit of safety in each. Women who work for others usually have household or other domestic duties to perform which oblige them to continue at work each day for a much longer period than their time of service. Even those who live at their places of work generally have to make and mend their clothing and do other things for their personal welfare, in addition to the work done for their employers. In view of these circumstances affecting the generality of employed women, it could scarcely be claimed that a limitation to eight hours a day to the time of employment in many of the occupations mentioned in the act is unreasonable as a health regulation. The work in hotels may not be as severe as that in some of the other places covered by the law, but considering the delicate frame of women as compared with men, we can not perceive that the difference is so radical as to make it unreasonable to include employees in hotels among those protected by the law. Doubtless there is a limit below which the legislature can not go. But we can not say that eight hours of employment in work of this character in addition to the labor necessary to be done before and afterward by the employee is unreasonably low and beyond the legislative discretion, or that, in the present condition of common knowledge on the subject, the limitation upon the time of employment of women in hotels is so manifestly unreasonable and unnecessary for the promotion and preservation of the health and welfare of the human race, that the courts can declare that the legislature had no rational ground for imposing it as a police regulation for that purpose. The responsibility, if the law is unwise, is with the legislature.

3. The next objection is that the act is special because there are no reasons for making the restriction as to the particular employments mentioned in the act which do not apply with equal force to other similar occupations. There may be, and probably are, other occupations followed by women which are equally injurious to their health, and which should also be regulated. But if this be true it does not make the law invalid. If there are good grounds for the classification made by the act, it is not void because it does not include every other class needing similar protection or regulation. "The law is not rendered special by the mere fact that it does not cover every subject which the legislature might conceivably have included in it." (*Ex parte Martin*, 157 Cal. 57.)

The general rules governing this subject are well settled by our decisions. They may be stated as follows: A law is general and uniform in its operation when it applies equally to all persons embraced within the class to which it is addressed, provided such class is made upon some natural, intrinsic or constitutional distinction between the persons composing it and others not embraced in it. It is not general or uniform and it makes an improper discrimination if it confers particular privileges or imposes peculiar restrictions or disabilities upon a class of persons arbitrarily selected from a larger number of persons, all of whom stand in the same relation to the privileges granted or burdens imposed, and between whom and the persons not not so favored or burdened no reasonable distinction or substantial difference can be found justifying the inclusion of one and the exclusion of the other from such privileges or burdens. The difference on which the classification is based must be such as, in some reasonable degree, will account for or justify the peculiar legislation. The following cases declare these rules: *Smith* vs. *Judge*, 17 Cal. 555; *Pasadena* vs. *Stimson*, 91 Cal. 251; *Darcy* vs. *San José*, 104 Cal. 645; *Bloss* vs. *Lewis*, 109 Cal. 499; *Marsh* vs. *Hanly*, 111 Cal. 370; *Ex parte Jentzsch*, 112 Cal. 474; *Ex parte Giambonini*, 117 Cal. 574; *Krause* vs. *Durbrow*, 127 Cal. 684; *Pratt* vs. *Browne*, 135 Cal. 652; *Ex parte Sohncke*, 148 Cal. 267.

The women employed in hotels are, for the most part, chambermaids and waitresses. It is contended that the work of such persons in hotels is no more arduous or injurious to health than that in lodging-houses and boarding-houses, that they are all of the same class with respect to the need of such protection, and hence, that there is no substantial reason or difference in conditions which can justify the protection of those employed in hotels alone. The census returns show that in this state the number of boarding-houses and lodging-houses, combined, exceeds the number of hotels by about fifty per cent of the number of the latter. As the hotels are usually the larger institutions, it is probable that the number of women employed therein is about equal to those employed in the other places mentioned. In the matter of numbers there appears to be no ground for distinction. But there are other obvious differences. The patrons of lodging-houses and boarding-houses use them as places of residence. They are for the most part permanent occupants. Such places partake more of the nature of a home or residence than does a hotel. They are not accessible, as of right, to the public generally, as in the case with hotels. The occupants may be and often are selected by the proprietor, and frequently they compose a class having similar habits, tastes and desires. An acquaintance arises between them and the servants and the servants soon become accustomed to the wants and ways of those by whom their services are required. The occupants of a hotel are of a more transient character. They come and go and change daily. They are usually entire strangers to the servants. Their habits are likely to be irregular and of great diversity as well as unfamiliar to the employees. These respective conditions must, or at least may, make the work of such employees in the other places materially different from those similarly employed in hotels. It is not unreasonable to suppose that those in the other places will be subject to less strain and tension than those who serve the more transient, varied and indiscriminate guests of hotels, to whom they are generally entire strangers. The legislature, in view of all the above facts, may reasonably have so determined. In support of the law as already stated, the courts are bound to presume that it did make this decision, and as there are sound reasons upon which it may rest, the decision must be accepted as correct. The conditions stated appear to be a sufficient basis for the classification made. In such matters the legislature can not deal with individual cases. It can provide only for classes, and its decision as to the line of cleavage between classes in some particulars the same and in other particulars different must be upheld where it is based on any reasonable grounds. We are of the opinion, therefore, that the law can not be declared invalid because of this discrimination.

We can not say that the exemption of persons employed in harvesting, curing, canning or drying perishable fruits or vegetables from the operation of the law, makes an improper discrimination. These occupations can be carried on only for a short period of each year, the time of the annual ripening of the particular fruits or vegetables. In a cannery devoted to every kind of fruit and vegetable the work may continue much longer, but even those establishments are idle for a large part of the year. There is time for those employed therein to obtain rest and recuperation. It is also to be noted that, looking to the general welfare, there is a greater necessity for facility in obtaining employees to do such work than obtains in ordinary employment, for, unless the work is done at the proper time, great loss must ensue from the perishable nature of the products to be preserved. These are all matters which the legislature could properly take into consideration, and they constitute a sufficient justification for the exception. (See *State* vs. *Somerville*, *supra*, where it was held that a similar exception did not vitiate the women's eight-hour law of the state of Washington.)

4. The title embraces but one general subject—the regulation of female employment. The subdivision of this subject by the particular details stated in the title does not make it embrace two subjects. The title is sufficient in this respect. We

find no ground upon which the law can be declared void or the conviction in question invalid.

Let the petitioner be remanded to the custody of the sheriff of Riverside County.

SHAW, J.

We concur:
ANGELLOTTI, J.
SLOSS, J.
LORIGAN, J.
MELVIN, J.
BEATTY, C. J.

OPINION NO. 2113.

SAN FRANCISCO, JUNE 14, 1911.

John P. McLaughlin, Esq., Commissioner, Bureau of Labor Statistics,
948 Market Street, San Francisco, California.

DEAR SIR: Your favor of June 11, 1911, received. Therein you state:

> "This office is in receipt of many inquiries regarding the effect of the eight hour law for females as pertaining to office help—clerks and stenographers specifically. We would be pleased to get an opinion from you on the following questions:
>
> *First*—Are stenographers and clerks working in all offices subject to the provisions of this Act?
>
> *Second*—Are women employed in the handling of perishable goods other than fruits and vegetables within its provisions?
>
> *Third*—Do women working in canning establishments, at other work than canning—such as labeling, tally clerks, packers of dried fruits, etc., come within the provisions of this act?
>
> We would be pleased to receive your opinion on these questions at your earliest convenience in order that we may be able to answer intelligently a number of letters now on file in this office."

Your first question is:

> "Are stenographers and clerks working in all offices subject to the provisions of this act?"

The law to which you refer is Chapter 258 of the Acts of 1911. The title thereof is, in part, as follows:

> "An act limiting the hours of labor of females employed in any manufacturing, mechanical or mercantile establishment, laundry, hotel, or restaurant, or telegraph or telephone establishment or office, or by any express or transportation company."

Section 1 of the act is as follows:

> "No female shall be employed in any manufacturing, mechanical or mercantile establishment, laundry, hotel, or restaurant, or telegraph or telephone establishment or office, or by any express or transportation company in this state more than eight hours during any one day or more than forty-eight hours in one week. The hours of work may be so arranged as to permit the employment of females at any time so that they shall not work more than eight hours during the twenty-four hours of one day, or forty-eight

> hours during any one week; provided, however, that the provisions of this section in relation to the hours of employment shall not apply to nor affect the harvesting, curing, canning or drying of any variety of perishable fruit or vegetable.''

It is a general rule of law that, in the construction of statutes, punctuation may be disregarded, but this rule does not mean that a court may repunctuate a statute, so as to change its meaning, where its meaning is perfectly plain, for such punctuation would be legislation.

Where a particular clause or sentence of a statute is so ungrammatical, or so punctuated, as not to make sense, when the intention of the legislature is clearly ascertainable from the context and statutes *in pari materia,* the court will put the construction on the statute intended by the legislature, and for such purpose, may change the punctuation to express such intention, but where a statute is grammatically accurate, and its meaning is not obscured, its scope cannot be extended by repunctuation.

In this statute, the division of employments to which the act refers is made very clear, both in the caption and in the first section of the act. If the legislature had intended that the act should apply to stenographers and clerks in all offices, it would have placed the words ''or office'' after the words ''or restaurant,'' in all probability.

We are not at liberty to extend the scope of this act, by adding a comma after the word ''establishment.'' To do so would be direct legislation by the judicial branch of the government.

A good discussion of this subject, with pertinent cases, in the Supreme Court of the United States, will be found in *United States* vs. *York,* 131 Fed. 326. I quote therefrom as follows:

"But another grave objection to the indictment remains, and in this instance both the revisers and congress have left a serious gap to be bridged by judicial interpretation before a most important part of section 5424 can be made applicable to the present case, or to other grave acts which, as it is urged, should be contained within it, and which were contained in section 2 of the act of 1870. The revisers and Congress, with apparent deliberation, have omitted words from the new section that were within the earlier law. Section 5424 provides:

> 'Every person applying to be admitted a citizen or appearing as a witness for any such person, who knowingly personates any other person than himself, or falsely appears in the name of a deceased person, or in an assumed or fictitious name, or falsely makes, forges, or counterfeits any oath, notice, affidavit, certificate, order, record, signature, or other instrument, paper, or proceeding required or authorized by law, relating to or providing for the naturalization of aliens; or who utters, sells, disposes of, or uses as true or genuine, or for any unlawful purpose, any false, forged, antedated, or counterfeit oath, notice, certificate, order, record, signature, instrument, paper, or proceeding above specified; or sells or disposes of to any person other than the person for whom it was originally issued any certificate of citizenship, or certificate showing any person to be admitted a citizen, shall be punished by imprisonment at hard labor not less than one year, nor more than five years, or by a fine of not less than three hundred nor more than one thousand dollars, or by both such fine and imprisonment.'

It will be observed that after the word 'or,' and before the words 'who utters,' etc., are omitted the words 'every person,' with which the section opens. The same omission occurs in the third auxiliary clause of the section. Hence 'who,' as so used, and wherever used in the section, refers to the initial 'every person.' But such words 'every person' are modified by the words 'applying to be admitted a citizen. or appearing as a witness for any such person.' Hence, as the section literally reads, a person uttering a certificate can only be punished in case he was a 'person applying to be admitted a citizen, or appearing as a witness for any such person.' The indictment does not charge that Bunoro, the principal, was either a 'person applying to be admitted a citizen, or appearing as a witness for any such person,' and it was admitted upon the argument that he was not such person. In section 2 of the act of 1870 the language is:

> 'If any person applying to be admitted a citizen, or appearing as a witness for any such person shall knowingly personate any such person, . . . or if any person shall falsely make, forge, or counterfeit any oath, affirmation, notice, affidavit, certificate,' etc.

That is, before each 'who' in each auxiliary clause in the former section the words 'any person' are repeated without the qualifying words. The revisers and Congress with apparent intention have omitted to repeat the words 'every person' in any auxiliary clause, but have left each relative 'who' referring to 'every person applying to be admitted a citizen, or appearing as a witness for any such person.' Hence, to sustain the indictment, the court must reinstate before each 'who' the words 'any person,' so carefully used in the former act, and painstakingly omitted from section 5424, except at the beginning thereof, where the words 'every person' are used. The section, in fit terms, limits the persons punishable to a certain class. The question is whether the court may interpolate in a penal statute words which the revisers and congress have twice rejected, and by such interpolation bring under its penalty new classes of offenses. The government vehemently urges that, unless the effect of the old statute be given to the new, persons punishable under the old law may escape. It is sufficient answer that the responsibility rests upon the revisers and Congress.

In *United States* vs. *Goldenberg*, 168 U. S. 95, 102, 18 Sup. Ct. 3, 42 L. Ed. 394, it is said:

> 'The primary and general rule of statutory construction is that the intent of the lawmaker is to be found in the language that he used. He is presumed to know the meaning of words and the rules of grammar. The courts have no function of legislation, and simply seek to ascertain the will of the legislator. It is true, there are cases in which the letter of the statute is not deemed controlling, but the cases are few and exceptional, and only arise when there are cogent reasons for believing that the letter does not fully and accurately disclose the intent. No mere omission, no mere failure to provide for contingencies which it may seem wise to have specifically provided for, justify any judicial addition to the language of the statute.'

In *United States* vs. *Harris*, 177 U. S. 309, 20 Sup. Ct. 611, 44 L. Ed. 780, it is said:

> 'Giving all proper force to the contention of the counsel of the government that there has been some relaxation on the part of the courts in applying the rule of strict construction to such statutes, it still remains that the intention of a penal statute must be found in the language actually used, interpreted according to its fair and obvious meaning. It is not permitted to courts, in this class of cases, to attribute inadvertence or oversight to the Legislature when enumerating the classes of persons who are subjected to a penal enactment nor to depart from the settled meaning of words or phrases in order to bring persons not named or distinctly described within the supposed purpose of the statute.'

Mr. Chief Justice Shiras, in delivering the opinion of the court in the above case, quotes the language of Mr. Chief Justice Marshall in *United States* vs. *Wiltberger*, 5 Wheat. 76, 5 L. Ed. 37, as follows:

> 'The rule that penal laws are to be construed strictly is perhaps not much less old than construction itself. It is founded on the tenderness of the law for the rights of individuals, and on the plain principle that the power of punishment is vested in the legislative, and not in the judicial department. It is the legislature, not the court, which is to define a crime and ordain its punishment. It is said that, notwithstanding this rule, the intention of the lawmaker must govern in the construction of penal as well as other statutes. But this is not a new, independent rule which subverts the old. It is a modification of the ancient maxim, and amounts to this: That, though penal statutes are to be construed strictly, they are not to be construed so strictly as

> to defeat the obvious intention of the legislature. The maxim is not to be applied so as to narrow the words of the statute to the exclusion of cases which those words in their ordinary acceptation, or in that sense in which the legislature obviously used them, would comprehend. The intention of the legislature is to be collected from the words they employ. Where there is no ambiguity in the words, there is no room for construction. The case must be a strong one indeed which would justify a court in departing from the plain meaning of words, especially in a penal act, in search of an intention which the words themselves did not suggest. To determine that a case is within the intention of a statute, its language must authorize us to say so. It would be dangerous indeed to carry the principle that a case which is within the reason or mischief of a statute is within its provisions so far as to punish a crime not enumerated in the statute, because it is of equal atrocity or of a kindred character with those which are enumerated. If this principle has ever been recognized in expounding criminal law, it has been in cases of considerable irritation, which it would be unsafe to consider as precedents forming a general rule in other cases.'

In *Lake County* vs. *Rollins*, 130 U. S. 670, 9 Sup. Ct. 652, 32 L. Ed. 1060, Mr. Justice Lamar said:

> 'To get at the thought or meaning expressed in a statute, a contract, or a constitution, the first resort in all cases is to the natural signification of the words in the order of grammatical arrangement in which the framers of the instrument have placed them. If the words convey a definite meaning, which involves no absurdity, nor any contradiction of other parts of the instrument, then that meaning apparent on the face of the instrument must be accepted, and neither the courts nor the legislature have the right to add to it or take from it.'

There are occasions when earlier statutes can be consulted. The Supreme Court has stated the rule. In *United States* vs. *Bowen*, 100 U. S. 513, 25 L. Ed. 631, it said:

> 'The revised Statutes must be treated as the legislative declaration of the statute law on subjects which they embrace on the 1st day of December, 1873. When the meaning is plain, the courts cannot look to the statutes which have been revised to see if congress erred in that revision.'

This is approved in *Victor* vs. *Arthur*, 104 U. S. 498, 26 L. Ed. 633:

> 'The decisive question is whether section 728 is to be construed as an independent act, or whether the plaintiff is at liberty, by referring to the prior act from which it was taken, to show that it was the intention of congress to limit it to the cases named in such prior act. The general rule is perfectly well settled that where a statute is of doubtful meaning, and susceptible upon its face of two constructions, the court may look into prior and contemporaneous acts, the reasons which induced the act in question, the mischiefs intended to be remedied, the extraneous circumstances, and the purpose intended to be accomplished by it, to determine its proper construction. But where the act is clear upon its face, and when standing alone it is fairly susceptible of but one construction, that construction must be given to it.' *Hamilton* vs. *Rathbone*, 175 U. S. 419, 20 Sup. Ct. 155, 44 L. Ed. 219.

The subordinate clause of the sentence in section 5424 relates to a—

> 'Person applying to be admitted a citizen, or appearing as a witness for any such person, who knowingly personates any other person than himself, or falsely appears in the name of a deceased person, or in an assumed or fictitious name, or falsely makes, forges, or counterfeits any oath, notice, affidavit, certificate, order, record, signature, or other instrument, paper, or proceeding required or authorized by any law relating to or providing for the naturalization of aliens.'

Now, observe how the second clause (the one in question) specifically refers to the acts enumerated in the first clause. It proceeds 'or who utters, sells, disposes of, or uses as true or genuine, or for any unlawful purpose, any false, forged, antedated, or counterfeit oath, notice, certificate, order, record, signature, instrument, paper, or proceeding above specified'; and the section continues, 'or sells or disposes of to any person other than the person for whom it was originally issued any certificate of citizenship, or certificate showing any person to be admitted a citizen.' The section is harmonious in its several parts. 'Every person applying,' etc., is forbidden to personate, to falsely appear in the name of another, or in a fictitious name, to falsely make, to forge, to counterfeit, any oath, notice, etc., or to utter, sell, dispose of, to use as true, any such papers, or to sell any certificate, etc. The intention is that a person applying, etc., shall not personate, nor make false naturalization papers; that he shall not utter, sell, or use the same, nor sell or dispose of any certificate. The section is free from all ambiguity. It is grammatically correct. Its provisions are consistent one with another. They are applicable to cases that might arise. They do not cover all classes of offenders included in the act of 1870. If it be admitted that they should cover such classes, yet they plainly do not. The revisers and Congress could not have read the section without observing the omission. They deliberately took out words from the earlier act that were palpably necessary to cover such offenses. This court is not permitted to interpolate words that the revisers and congress rejected. The section is sensible. It is accurate. If the public welfare demands that it should be broader, the power rests alone with congress to amplify it.

The court recognizes with what care the learned counsel for the government has marshaled and submitted the rules of construction and the sustaining authorities. But in the present case there is no occasion for resorting to rules of construction. Their aid is neither required nor justified, because the language of section 5424 is plain. There is no doubt of its meaning. It is free from ambiguity. The legislature means what it says, and its words declare its meaning. Why look beyond the words in such case? The government insists that the meaning is obscure. That is the vice of its argument. The meaning is unclouded.

It is finally urged that the section should be repunctuated to give the words a meaning that they do not now express. The proposition is to repunctuate a statute so as to include classes that are clearly excluded, when there is not the slightest evidence on the face of the statute of an intent to include them. The proposition is to punctuate the section so as to make it read as if it contained the very words that were in the old statute, which words the revisers and Congress have omitted. The situation is this: The earlier statute contained words that included various classes of offenders. The revisers and congress omitted some of them. The proposal is that the section be repunctuated so that it will be equivalent to a statute with the omitted words present. That would be grave interference with legislative action. The extent to which counsel for the government asks the court to go in the matter of reconstruction of the statute is illustrated by the following extract from his argument:

> 'Every person, (comma inserted) applying to be admitted a citizen (comma) omitted) or appearing as a witness for any such person, who knowingly personates any other person than himself, or falsely appears in the name of a deceased person, or in an assumed and fictitious name, or falsely makes, forges, or counterfeits any oath, notice, affidavit, certificate, order, record, signature, or other instrument, paper, or proceeding required or authorized by any law relating to or providing for the naturalization of aliens; or, (comma inserted) who utters, sells,' etc.
>
> The government advocates the change as follows:
>
> 'By thus transposing the comma in the first portion of this section, it would be clear that the first clause was intended to cover every person who applies to be admitted a citizen, or appears as a witness and knowingly personates, etc., and the second clause as thus punctuated ("or, who utters, sells," etc.) would relate to the principal subject "every person," and would clearly mean "or every person who utters, sells," etc. The entire sentence, grammatically analyzed, is a simple declarative sentence; the subject being "person," the predicate being "punished," and the object "imprisonment;" the subject being qualified by the complex adjective clauses "applying to be admitted a citizen" and "knowingly personating," etc., and the second of the complex qualifying clauses being "who utters, sells," etc.' It is at least doubtful whether this punctuation would demand or even justify the construction urged by the government. In any case, it is considered that the plain reading of the section, and the intention of the congress as gathered from it, should not be thwarted by such corruption of the text."

So here, we would have to repunctuate the statute so as to include clauses which are clearly excluded, when there is not the slightest evidence on the face of the statute of the intent to include them.

Therefore, I am of opinion that the regulatory provisions of the statute do not apply to stenographers and clerks working in offices, except such as are working in telegraph or telephone offices, express or transportation companies, or in manufacturing, mechanical, or mercantile establishments, laundries, hotels, or restaurants.

> *Second*—"Are women employed in the handling of perishable goods other than fruits and vegetables within its provisions?"

Section 1 of the act provides, in part, as follows:

> "*provided, however,* that the provisions of this section in relation to the hours of employment shall not apply to nor affect the harvesting, curing, canning or drying of any variety of perishable fruit or vegetable."

This proviso is an exception to the general provisions of the statute, and must be construed strictly. Its meaning is entirely plain, and there is no need to travel outside the ordinary meaning of the language to ascertain the intention of the legislature. This proviso only refers to the handling of perishable fruits or vegetables, and, therefore, women employed in the handling of perishable goods, other than such fruits or vegetables, are within the purview of the act, but not within the purview of the exception.

Davis vs. *Hart,* 123 Cal. 387.

> *Third*—"Do women working in canning establishments, at other work than canning—such as labeling, tally clerks, packers of dried fruits, etc., come within the provisions of this act?"

Again, we must construe the proviso according to its plain meaning and intent, in accordance with the purpose intended to be accomplished by the legislature. The only purpose of the proviso was that the hours of employment prescribed by the act should not be allowed to interfere with the harvesting, curing, canning or drying of fruits or vegetables which might be likely to spoil, if they were left right in the midst of the operation by a cessation of labor. After fruits or vegetables have been harvested, cured, canned or dried, they are no longer perishable and the object of the proviso ceases. Then comes the work of labelers, tally clerks, and packers. These employees have nothing to do with the handling of the perishable fruits and vegetables, before they have become preserved by the various measures used in curing, canning or drying thereof. These employees, in my opinion, come within the purview of the act, but not within the purview of the exception.

Yours very truly,

U. S. WEBB, Attorney General.
By R. C. VAN FLEET, Deputy.

OPINION NO. 2262.

SAN FRANCISCO, CAL., May 15, 1912.

Hon. John P. McLaughlin, Commissioner Bureau of Labor Statistics,
San Francisco, Cal.

DEAR SIR: I have your communication of March 14, 1912, in which you submit the following questions for my opinion:

> "(1) When street work is done, pursuant to an award by municipal authorities after public bids, under the provisions of the Vrooman act, is such work considered public work, and do the provisions of section 653*c* and 653*d* of the Penal Code—relating to employees on public works; and Statutes of 1901, page 589, relating to the employment of aliens on public works; and section 17, article XX of the Constitution, relating to hours of labor on public works, apply to the street work above mentioned.
>
> (2) Under the provisions of Statutes of 1901, page 589, relating to the employment of aliens on public works, may an alien who has declared his intention to become a citizen be employed upon public works."

Section 17 of article XX of the Constitution provides that:

> "The time of service of all laborers or workmen or mechanics employed upon any public works of the State of California, or of any county, city and county, city, town, district, township, or any other political subdivision thereof, *whether said work is done by contract or otherwise,* shall be limited and restricted to eight hours in any one calendar day. . . ."

Section 653*c* of the Penal Code reads in part as follows:

> "The time of service of any laborer, workman, or mechanic employed upon any of the public works of the State of California or of any political subdivision thereof or upon work done for said state or any political subdivision thereof is hereby limited and restricted to eight hours during any one calendar day; and it shall be unlawful for any officer or agent of said state or of any political subdivision thereof *or for any contractor or subcontractor doing work under contract upon any public works aforesaid, who employs or who directs or who controls the work of any laborer, workman, or mechanic employed as herein aforesaid* to require or permit such laborer, workman, or mechanic to labor more than eight hours during any one calendar day. . . ."

In the section of the Constitution above referred to, it is provided that:

> " . . . the legislature shall provide by law that a stipulation to this effect shall be incorporated in all contracts for public work and prescribe proper penalties for the speedy and efficient enforcement of such law."

It is under the authority thus granted to the legislature that the section of the Penal Code above referred to was adopted, and it will be seen from a reading of both the constitutional section and the penal statute that the limitation upon the hours of labor refers to all contracts for labor to be performed directly for the State or any of its political subdivisions, whether such laborers are employed directly by the State or any political subdivision thereof or whether they are employed by a contractor or subcontractor of the State or one of its political subdivisions. It is, therefore, unnecessary to determine whether street work done pursuant to the provisions of the Vrooman act under a contract awarded after public bids had been received is public work, though I am of the opinion that all work of this nature which directly affects the public interest, whether it be to the interest of the entire community of any political subdivision of the State or to a single portion thereof, is public work within the contemplation of the Constitution and the Penal Code.

The Statutes of 1901, page 589, relating to the employment of aliens on public works presents a different question. Section 1 of this act reads as follows:

> "No person, except a native born or naturalized citizen of the United States, shall be employed in any department of the state, county, city and county, or incorporated city or town government in this state."

Nowhere in the act is there any express language applying its terms to the employment of aliens by contractors who contract with the city to perform any public work. It seems to be the clear intention of the act not to extend its provisions to such contractors and I am of the opinion that the legislature is without power to so limit the right of employment.

In *City Street Improvement Company* vs. *Kroh,* 158 Cal. 308, our Supreme Court had occasion to pass upon the validity of a contract which had been let by the Highway Commissioners of San Joaquin County for the purpose of constructing and repairing certain roads in that county. The specifications upon which sealed bids were asked contained a stipulation that no unnaturalized aliens should be employed in the work; in holding that the board of supervisors were without power to insist upon a specification to that effect the Supreme Court said:

> "The provision of the specifications to the effect that, except by permission of the highway commission, no unnaturalized alien shall be employed in the work, is invalid and unenforceable when attempted by public authorities. The Constitution provides that all men have the inalienable right of enjoying liberty and acquiring property, and that foreigners of the white race, eligible to citizenship, while *bona fide* residents of the State, shall have the same right to acquire property as native born citizens. (Const., art. I, secs. 1, 17.) Laws forbidding the employment of aliens have been held invalid. (*Chicago* vs. *Hulbert,* 205 Ill. 363 (68 N. E. 786); *People* vs. *Warren,* 34 N. Y. Supp. 943 (13 Misc. 615.) Such a law would violate the treaties with almost all the nations from which this country receives immigrants. (See *Estate of Ghio,* 157 Cal. 552 (108 Pac. 516). The statute in question charges the supervisors with the duty of administering the scheme for building roads, but it does not purport to confer power to make or enforce a provision of this character. They have, no doubt, a wide discretion as to the manner of carrying on the work and may adopt any measure reasonably tending to facilitate the same, or perhaps any which may incidentally further any laudable public purpose. But they are not given authority to put restrictions upon the contractor which can only hinder the work, which make it more expensive, and which have no relation whatever to the thing to be done, or to any conceivable legislative purpose disclosed by the statute, and which would be a direct attempt to discriminate against one class of *bona fide* residents of the state and favor another, a violation of treaty obligations and contrary to the principles of the

constitution. No express authority for such a provision is given and we are satisfied that the supervisors have no implied power to impose such a mischievous and burdensome restriction. A violation of it by the contractor would not defeat his right to recover the contract price upon performance of the work."

The same question was involved in the case of *City of Chicago* vs. *Hulbert*, 68 N. E. 786; in holding that a statute of the State of Illinois, providing for street improvement under the assessment plan (which statute is, in all respects, similar to that of the Vrooman act), and which provided that it should be unlawful for any officer or any contractor to employ any person other than a citizen upon any public contract, was invalid, the court used the following language:

"It is now insisted by appellees that the proceedings are void, and that this ordinance can not be sustained because paragraph 10 of chapter 6 of our statutes, entitled 'Aliens,' was not compiled with (Hurds Rev. St. 1901, p. 141). That paragraph provides that 'it shall be unlawful for any . . . officer . . . acting for . . . any city . . . or any contractor or subcontractor, under any or either of said municipalities, to employ any person or persons, other than native born or naturalized citizens, or those who have in good faitth declared their intentions to become citizens of the United States, when such employees are to be paid, in whole or in part, directly or indirectly out of any funds raised by taxation.' Paragraph 11 of the same statute requires any one employing labor to be paid out of the public funds to make a list of the persons so employed, showing that they meet the requirements of the foregoing paragraph, and paragraph 12 fixes a penalty for a violation of paragraph 11. Appellees took evidence showing that this statute was not complied with, and insist that, as these public funds go to the contractor who violated that law, the ordinance cannot be sustained. A similar law was enacted by ordinance in the city of Chicago and we have repeatedly held that such law is invalid, as it is in contravention of the Constitution and the right of individuals to contract. The statute in question is void upon the same grounds, and neither the city nor the contractor was under any obligation to observe it."

And so in *Inge* vs. *Board of Public Works*, 135 Ala. 187, 93 Am. St. Rep. at page 28, the Supreme Court of the State of Alabama in holding that the stipulation in a municipal contract for street improvements prohibiting the contractor to employ alien laborers was void, used the following language:

"The stipulation in the contracts against the employment by the contractor of alien or convict labor presents a question which has received consideration in a number of cases in the courts of the country. This condition was contained in the specifications, which formed the basis of the bids called for. It narrowed the field for the employment of labor, and was a restriction upon the contractor that naturally tended to make him increase the price of his bid. Such a limitation is directly opposed to the interest of the taxpayer, who is entitled to have the work done at the lowest cost. The authorities are generally agreed that such a provision invalidates the contract. The following cases discuss the principle here involved and contain citations of other authorities: *People* vs. *Coler*, 166 N. Y. 1, 82 Am. St. Rep. 605, 59 N. E. 716; *Baker* vs. *Portland*, 5 Saw. 566, Fed. Cas. No. 777; *People* vs. *Warren*, 13 Misc. Rep. 615, 34 N. Y. Supp. 942; *Holden* vs. *City of Alton*, 179 Ill. 323, 53 N. E. 556."

There are many authorities supporting the proposition that a state is without power to limit the right of employment of alien laborers where the right of free employment is given to such aliens by the terms of the treaties existing with the United States; but it is unnecessary to quote further authority here, the decision in *City Street Improvement Company* vs. *Kroh*, above quoted, being the authority in this State.

You are accordingly advised that as to the hours of labor, the provisions of section 17 of article XX of the State Constitution and of section 653*c* of the Penal Code are applicable to all contracts awarded by municipal authorities after public bids under the provisions of the Vrooman act, but that the provisions of the Statute of March 23, 1901, (Stats. 1901, p. 589) relating to alien laborers is not applicable to such contracts.

As section 1 of the act of March 23, 1901, prohibits the employment of any person who is not a native born or *naturalized* citizen, it is evident that an alien who has merely declared his intention to become a citizen is not eligible to such employment; you are, therefore, advised that where public work is being done under the provisions of the Vrooman act, where the charter of the particular city wherein such work is being performed is silent on the question, the provisions of the statute of March 23, 1911, apply to all employees of the city whose wages are paid directly by the city, and that an alien who has merely declared his intention to become a citizen and who has not actually been naturalized is not eligible, either as an officer or employee of the State, or of any county, city and county or incorporated city or town thereof, excepting that in any chartered city it is competent for the charter to provide the qualifications of the officers and employees of the city, and where such provision is made the provisions of this act are inapplicable.

Very truly yours,

U. S. WEBB, Attorney General.
By John T. NOURSE, Deputy.

OPINION NO. 2298.

SAN FRANCISCO, June 3, 1912.

John P. McLaughlin, Esq., State Labor Commissioner, San Francisco.

DEAR SIR: I have your communication of April 25, 1912, wherein you ask to be advised whether under the laws of this State a nonresident child, temporarily within the State with a traveling theatrical organization, who is not engaged in any acrobatic act, ropewalking or wirewalking act, singing or dancing turn, or in any vocation which is immoral or injurious to the health or dangerous to the life or limb of the child, but who merely has a walking or speaking part, is debarred from such participation.

There are two acts which demand consideration in this connection. First, the amendment to section 272 of the Penal Code (Stats. 1905, p. 759), and, second, the compulsory education and child labor laws, as amended at the regular session of the legislature in 1911 (Stats. 1911, pp. 482 and 456).

As to the section of the Penal Code referred to, it is clearly its purpose to prohibit the participation of children of less than sixteen years in acrobatic stunts, dangerous acts, singing and dancing turns, or any acts which are injurious to the health or dangerous to the life or limb of the child, or which are connected with an indecent or immoral exhibition. Before its amendment in 1905, this section prohibited the participation of children under sixteen years of age in singing, dancing and acrobatic acts in a public street or in a wandering or mendicant business, the purpose being to prevent children from taking part in circuses or street performances of a low character. Before its amendment in 1905, the act had no reference to participation of children in legitimate theatrical performances.

By the amendment of 1905, all participation in the acts mentioned in the section was prohibited, whether the exhibition was given upon a street or in a theatre or vaudeville house. Though the prohibited acts of the former section were continued in the amendment, and additional acts were prohibited by the amendment, it does not appear that the legislature has expressed any intention by this section to prohibit mere walking or speaking parts in legitimate theatrical productions. Inasmuch as the statute is criminal, the rule of strict construction must be applied, and, adopting this construction, I am of the opinion that such acts are not prohibited by the terms of the section.

As to the compulsory education and child labor laws of 1911, it seems clear that they are made applicable only to children resident within the State.

Section 1662 of the Political Code provides that the public schools of the State shall be open to children "residing in the district." A member of a traveling theatrical troupe who merely visits a city or town for the purpose of giving theatrical performances, and with no intention of residing there, is not a resident of the district within the meaning of this section.

The act of April 21, 1911 (Stats. 1911. p. 482), provides for the compulsory education of all children of the State within the ages of eight and fifteen years, establishes a penalty for failure upon the part of a parent or guardian to comply with the terms of the act, and authorizes the creation of parental schools for the purpose of detaining truant children and compelling them to attend school under the supervision of truant officers.

The act of April 14, 1911 (Stats. 1911, p. 456), after prohibiting the employment of minors in certain specified places of employment, provides that no child under fifteen years of age shall be employed in any " . . . place of amusement," but an exception is made in that the judge of the juvenile court or county, or city and county, *in which such child resides* shall have the power to issue a permit to any such child to work in any of the employments otherwise prohibited by the act.

Under the terms of the compulsory education law, as none but residents of the district are entitled to the benefits of attendance in the public schools of the district, it is evident that none but residents are subject to the compulsory provisions of the statute. Under the provisions of the act of April 14th, known as the "Child Labor Law," it is evident that the legislature intended to legislate for the children of the State only, and that it was not the intention to prohibit employment in the places of employment other than specified excepting as to children resident of the State.

You are therefore advised that a nonresident child is not debarred from participation in a walking or speaking part of a purely theatrical production,—that is to say, the provisions of the act of April 14th and of the act of April 21, 1911, do not apply to a nonresident child temporarily within the State, and that such child is entitled to engage in any employment with a theatrical company which is not expressly prohibited by the terms of section 272 of the Penal Code.

I return herewith brief of Mr. Ligon Johnson on this subject.

Yours very truly,

U. S. WEBB, Attorney General.
By JOHN T. NOURSE, Deputy.

BRIEF OF LIGON JOHNSON.

SAN FRANCISCO, April 25, 1912.

Hon. J. P. McLaughlin,
Commissioner of Labor.
948 Market Street, San Francisco.

DEAR SIR: I am informed that, in California, the right of children to participate in dramatic productions has been questioned and the members of the National Association of Theatrical Producing Managers, of which I am general counsel, have requested me to obtain some definite ruling upon this matter before the bookings for the next theatrical season are completed. I have carefully read the laws of California regarding the employment of children, and, in the case of those children who are but temporarily in the State, and with a theatrical company passing through California as part of its general tour, in the presentation of a legitimate dramatic production, I fail to find any enactment which, to my mind, would bar such children in the pursuit of their dramatic education and participation in legitimate dramatic work with such companies.

I wish to make it clear that my inquiry relates merely to walking and speaking parts and participation in a regular play. It has no relation to those occupations prohibited under Penal Code, section 272, and I concede that under the penal laws of this State a child is prohibited from engaging in acrobatic stunts, rope and wire walking acts, mere singing and dancing turns, or in any other vocation which is immoral, injurious to the health or dangerous to the life or limb of the child. My inquiry relates solely to the participation of a child, under proper and moral surroundings, in a regular dramatic production, and in work which is in itself educational and beneficial.

While this particular point may not be directly involved, I desire in the beginning to call your attention to the fact that the stage child is not engaged in any ''work'' under the ordinary acceptance of the term. If work at all, it is ''educational work,'' and, according to the testimony of our leading dramatic artists, absolutely essential in youth if the highest type of artist is to be developed. This training must be had in early youth, during the plastic period of the child and before self-consciousness has set in.

The theatre is the only school possible for this training and while participating in dramatic work the child is actually in school. There are some zealous but misinformed people who cannot distinguish between the few moments of mental effort of the stage child, effort spent in actual educational training, followed by periods of rest, recreation and general study, from the blind, constant and degrading toil of the little slave of the mill or factory, whose drudgery dwarfs mind, body and spirit and prohibits all opportunity for study and ability to study if opportunity could be found.

Again, the child of the mill often does a man's work at a child's pay. The reverse is true of the stage child whose presence is necessary if the purest themes of the drama are to be given. When the essence of childhood comes in, the higher emotions are always appealed to, and the very fact that the purity of childhood is to be presented prohibits those themes appealing to the baser instincts.

Now as to the law as I understand it.

California has two laws concerning children, one a general criminal statute (section 272, Penal Code) which applies generally, and the other the combined compulsory education and child labor laws which, if my construction is correct, applies only to children residents within the State.

I think it will at once be conceded that section 272 of the Penal Code, while prohibiting the acrobatic stunts, dangerous acts, mere singing and dancing turns and the like, has no application to a child in a legitimate dramatic production where there can be no question that its surroundings are not such as to be ''injurious to the health or dangerous to the life, or limb of such child'' and where it does not participate ''in any obscene, indecent or immoral exhibition.'' No child is taken in any dramatic production for the mere purpose of singing, or playing on musical instruments or for use in the other things specified. These forbidden acts were formerly witnessed in circuses and occasionally on the vaudeville stage but never in any legitimate dramatic production.

Therefore, so far as my present inquiry is concerned, I believe section 272 of the Criminal Code may be dismissed from further consideration.

There remains then but the Compulsory Education and Child Labor Law (which are so closely united that they are practically one law) to be considered.

Of these laws but one provision offers any possibility for controversy and that is under section 2 of the law with relation to employment and hours of labor which declared:

> "No child under fifteen years of age shall be employed in any mercantile institution, office, laundry, manufacturing establishment, workshop, *place of amusement*, restaurant, hotel, apartment house, or in the distribution or transmission of merchandise or messages."

To properly consider this it is necessary to consider the object and scope of educational and labor laws.

Regardless of the opinion as to the results accomplished, the true object of every educational and child labor law is the protection of the mental, moral and physical welfare *of the children of the state enacting the legislation,* its prospective citizens and voters. Each state legislates for its own charge, for its own children, after the belief of its own legislators. Each state assesses its own citizens and property owners for funds to educate its children and the children of no other state can share in these contributions by the state to its children's welfare.

The mere fact that a child or its parents are citizens of the United States gives no rights under the educational laws of any state but those of the state in which the child actually resides. The provisions as to school attendance reaches only those children who are residents of the State, prospective citizens and voters of such state. Educational laws are on a par with laws relating to the ballot and compulsory education laws no more apply to nonresidents than do the laws granting a right to vote apply to persons in the state who merely are on a trip through it.

No state will be presumed to tax its citizens for the benefit of the citizens of any other state or nation, and no nonresident can acquire any right under the educational laws of any state, nor does any duty devolve upon him under such laws.

This has been repeatedly declared by the courts of California and those of the various other states of the Union.

The decisions of the courts are uniform on this point. In California, as long ago as the case of *Ward* vs. *Flood,* 48 Cal. 49-51, it was held:

> "The opportunity of instruction in public schools given by the statute to the youth of the State, is in obedience to the special command of the State Constitution, and the privilege thereby granted is a legal right, as much as a vested right in property" (head note).
>
> "The education of youth is emphatically their protection. . . . Thus it is the acknowledged duty of the parent or guardian, as part of the measure of protection which he owes the child or ward, to afford him at least a reasonable opportunity for the improvement of his mind and the elevation of his moral condition and of this duty the law took cognizance. . . . The public law of the State, both the constitution and statute, having established public schools for educational purposes, to be maintained by public authority and at public expense, the youth of the *State thereby become pro hac vice wards of the state,* and under the operations of the constitutional amendment referred to, equally entitled to be educated at the public expense." . . .
>
> "It will readily be conceded that the privilege accorded to the youth of the State, by the law of the State, of attending public schools maintained at the expense of the state, is not a privilege or immunity appertaining to a citizen of the United States, as such."

This has been even more strongly expressed in the decisions of other states. In *Wheeler* vs. *Burrows,* 18 Ind. 14, it was held:

> "The legal domicile and residence of a minor, not emancipated, is that of his parents."
>
> "Parents residing in another state cannot send their children into this State for the purpose of procuring an education, and enable them to acquire such a residence here as will entitle them to admission into the public schools of this state, unless circumstances are such as will create bona fide legal residence here."
>
> "The complainant is more than five and less than eighteen years of age and has resided in the city at least one year, and now resides therein, in the family of

Marcus Sherwood, but under the control of his brother. . . . the plaintiff's father and mother reside and are domiciled in Tennessee. . . .

"As a general rule the domicile of a minor, not emancipated, is that of his parents," 1 Am. head cases, 714, 13 Ind. 167; and we perceive nothing in the facts before us to make this case an exception to the rule. Evidently the domicile of the plaintiff was in Tennessee, not in Indiana; and she was not, therefore, in legal contemplation a resident of the city of Evansville."

I also quote you the ruling of other states:

"A residence for school purposes cannot be gained by an indenture of apprenticeship if the articles are for the purpose of giving the child the benefit of a school where the one to whom he is apprenticed resides." *School District* vs. *Bragdon*, 23 N. H. 507.

"Persons who reside on lands purchased by or ceded to the United States for navy yards, forts, and arsenals, and where there is no other reservation or jurisdiction to the State than that of a right to serve civil and criminal process on such lands, are not entitled to the benefits of the common schools for their children, in the towns at which the lands are situated." *In re opinion of Justices*, 42 Mass. (1 Metc.) 580.

"Towns and cities are not authorized by law to open their schools to children whose parents or guardians reside in another state" . . . (head note). "The provisions of the General Statutes, ch. 41, 87, that with the consent of the school committee first obtained, children of certain ages may attend schools in towns or cities other than those where their parents or guardians reside, apply only to children whose parents or guardians reside in Massachusetts." *Inhabitants of Haverhill* vs. *Gale*, 103 Mass. 104.

"Children cannot acquire the right to attend school by being sent to board with a relative residing within the district and attending school a few weeks before the fact of nonresidence was discovered." *People* vs. *Board of Education*, 26 Ill. App. 476.

Not only have children of non-resident parents but temporarily within the state no right to attend public school, but the schools are declared to have no right to receive them, and if such children have been taught in the public schools under agreement to pay tuition, such tuition cannot be collected.

The head note of *Haverhill* vs. *Gale*, 103 Mass. 104, is the clearest exposition of this rule, in which case it is said:

"Towns and cities are not authorized by law to open their schools to children whose parents or guardians reside in another state; and if they do so, no promise, expressed or implied, of parents or guardians to pay for tuition can be enforced."

With relation to the children of nonresidents, the true rule appears to be that the child has a right to attend school (and in consequence the State has the right to enforce such attendance) where the child is in the State and there is no immediate and definite intention to remove it from the State.

"A child living with a domiciled resident and taxpayer of a school district as a member of his family with the expectation on the part of all parties that this relationship will continue permanently, although she has never been adopted and her parents live in another state so that she has not a domicile in a technical sense of that term, has a 'residence' there for school purposes, and cannot be compelled to pay tuition." *Yale* vs. *West Middle School District*, 59 Conn. 489.

"To establish a rule that a minor cannot have a residence for school purposes other than that of his parents would in many cases deprive him of all benefits of the school. When a minor has poor parents, the poverty of the parents renders it absolutely necessary in many cases that a *home* for the minor should be found in a place different from that of the parents, and if the rule was applied, such children, for whose benefit the free schools were especially instituted, would be deprived of all benefit of them." *State* vs. *Thayer*, 74 Wis. 48.

I presume it is unnecessary for me to brief or even call passing attention to the fact that "compulsory education" laws cannot possibly apply to any child who could not, if refused admission to a school, force his entrance by mandamus. No compulsory attendance can be enforced in any case where tuition is an incident to the right of attendance. I believe this is too elementary a proposition to require argument. The labor forbidden and the compulsory attendance is the result of a joint act for a single purpose and necessarily applicable to *the same* individual.

The act, even to section 2, which stipulates as to employment of children under fifteen makes this plain.

The first proviso of section 2 is an exception of all provisions to certain children over twelve after an investigation of "a probation officer or attendance officer (educational) of the city or city and county in which such child resides" and "such certificate shall always be open to the inspection of the attendance and probation officers" "and provided that the attendance officer of any county, city and county or school district in which any place of employment in this section named is situated," etc. "provided, however, if such attendance or probation officer is denied admittance," etc. "And provided that any such child over the age of twelve may be employed at any of the occupations mentioned in this act *during the regular vacation of the public schools* of the city, county, or city and county in which the place of employment is situated," etc.

Section 3 is equally enlightening as it requires every "certificate to be open at all times to the inspection of the school attendance and probation officers," etc.

The act in this connection not only shows that it is in effect a part and parcel of the educational laws but that it was intended only to apply to the officers as well as children of the State of California.

"Age and school certificates can only be issued by a California superintendent of city or county schools or his deputy" * * "persons issuing such certificates have power to administer oaths" * * "No fee can be charged" * * "Satisfactory evidence under school census of the Compulsory Educational law is required" * * "County superintendents of schools shall file with the Commissioner of Labor a report showing the nummber of age and schooling certificates issued." * * "Any person issuing a false certificate is guilty of a misdemeanor." Clearest of all is the provision—"A duplicate copy of *each* age and schooling certificate *granted under this act* shall be kept by the person issuing such certificate, such copy to be *filed with the county superintendent of schools in the* county where the certificate is issued."

Can there be any question of the intent or effect of the act on this point? Can there be but one construction of a law making one provision while public schools are in session and another for vacation? Is it intended to act upon individuals who could not attend the public schools, to nonresidents who are not "wards of the state" and to whom the state's educational laws do not apply?

Every provision of the act relates exclusively to children coming under the jurisdiction and operation of the California school laws.

On still another point the California child labor law clearly shows that it is intended to apply only to children in the state who have no immediate intention of leaving—to children who would properly come under its school laws and are or at least are likely to become "wards of the state."

In section 2, immediately following the clause under which the right of nonresident children to participate in dramatic productions temporarily within the state is questioned, and following the clause first quoted, the act provides:

> "Provided, that the judge of the juvenile court of the county, or city and county, or in any county or city and county in which there is no juvenile court, then a judge of the superior court *of the county or city and county in which such child resides* * * may issue a permit to work to any such child over twelve years of age * * * after investigation by a probation officer or attendance officer of the *city* or *city and county in which such child resides*."

The provision as to residence is reiterated under section 3*a*, where any one who employs children under permit, during hours when the public schools are in session, within one week after the termination of such employment is required to notify "the judge of the juvenile court *in the county of said child's residence*, or the probation officer of such juvenile court," etc.

The courts of California have already defined the meaning of "residence" when used in a statute along similar lines. In the case of *Dow* vs. *Gould et al.*, 31 Cal. pp. 650-652, it is said:

> "The residence contemplated by the act by those who are married out of the State, is not a mere temporary or transient residence, but such a residence which as will fill the definition of the term 'domicil' which term is defined as 'the place where a person has fixed his ordinary dwelling without a present intention of removal.'"

The statute applying as it does to children who are residents of the state could not possibly affect such children as are but temporarily within the State, with a theatrical production, where neither the theatrical production nor the child will remain in the State, and the visit to the State is but an incident of a general tour.

There is a considerable element of doubt as to the power of a State to pass a law prohibiting the only available means of an education in any art, when such education may be obtained without mental, moral or physical injury to the child. All educational and labor laws are enacted under the police power of a State. All enactments under this must be reasonable and reasonably construed. It is no valid exercise of police power to forbid any legitimate education and under it the State may only use all reasonable means to afford the child an education or safeguard the child in obtaining an education. The stage child can only obtain its dramatic education through the training possible under participation in theatrical productions.

No state passes laws to raise moot questions or laws that are incapable of enforcement, and if a law may have two constructions, one legal and enforceable, the other incapable of enforcement, the former always prevails.

Section 4 provides:

> "Any person, firm, corporation, agent, or officer of a firm or corporation that violates or omits to comply with any of the foregoing provisions of this act, or that employs, or suffers or permits any minor to be employed in violation thereof, is guilty of a misdemeanor, and shall, upon conviction thereof, be punished by a fine of not less than fifty dollars or more than two hundred dollars, or by imprisonment for not more than sixty days, or by both such fine and imprisonment for each and every offense. A failure to produce any age and schooling certificate or permit," etc.

To begin with the children are nonresidents and cannot obtain school certificates, as these are only issuable by California officials to children residents of California, and therefore there can be no compliance with the act.

The penalty applies to "any firm, corporation, agent or officer of a firm or corporation that violates or omits to comply," etc.

This is a penal statute and must be strictly construed. No person can be convicted under it unless the statute admits of no reasonable construction other than that under which a conviction may be had.

Bear in mind that the theatrical companies coming into California are owned by nonresidents. The child is the child of nonresident parents. The nonresident owner, the child and the child's parents enter into a perfectly legal arrangement and the child goes on tour with the company. The child is not engaged to go to California but to play with the company, which may, as part of its tour, play in your State. The company owner does not go with the company. The manager of the company has nothing to do with employing the child nor retaining it in the company's employ. He could not engage it or dismiss it. He neither employs, permits or suffers the child to be employed, and is not concerned in the child's employment. All actors are supplied by the owner of the production, who alone can engage or replace them.

The nonresident owner does not come to the State. Furthermore, his engagement of the child, when made was perfectly legal and for a legitimate purpose. He, therefore, is guilty of no crime.

The company manager has not employed the child. He has no such authority. He neither employs nor suffers nor permits the employment of a minor. He has nothing to do with it. He does not book the play and has nothing to do with where it goes. He therefore commits no offense.

The child is not sent to any California factory or place of business, nor is there any intention of the child or company engaging in any fixed business in the State. The child is with the company to appear in the theatres on a general tour, in which California may or may not be an incident.

The house manager has no control over the company, or its members, nor does he have anything to do with the employment of the child.

Plays requiring children are not forbidden under the law. Theatres are not prohibited from booking plays having children. The performance is legal. The original employment of the child was likewise legal. No act forbidden by the law has been done in the State. No person specified in section 4, has entered the State. Where, then, has the penal statute any effect? Who has transgressed the laws of the State?

From all of the foregoing I respectfully suggest that there is no law now in force in California which would prohibit nonresident children traveling with foreign theatrical attractions from participating in legitimate dramatic productions in the State of California.

Very truly yours,

(Signed) LIGON JOHNSON,
General Counsel.

OPINION NO. 2350.

SAN FRANCISCO, CAL., September 13, 1912.

Hon. John P. McLaughlin, Commissioner, Bureau of Labor Statistics, San Francisco, Cal.

DEAR SIR: I have your letter of July 27th, enclosing correspondence between your office and the A. K. Brauer Company of Los Angeles, wherein you have taken the position that the so-called Women's Eight Hour Law applies to all women employed by a corporation, and that the fact that a woman is either a stockholder or director of a corporation does not relieve the corporation from the provisions of the law.

You ask me to advise you whether your office has made the correct interpretation of the law in this respect.

The provisions of the act of March 22, 1911 (Stats. 1911, p. 437), commonly known as the Women's Eight Hour Law, prohibit the employment of any female in any manufacturing or mercantile establishment, etc. It is to be noted that the provisions of the law go to the question of the employment of females and the penalties are attached to the employer violating the provisions of the law.

An employee has been commonly defined as "one who works for an employer, a person working for a salary or wage."

> "The word is applied to any one so working, but usually only to clerks, workmen, laborers, etc., and but rarely to the higher officers of the government or corporation." *Palmer* vs. *VanFantvoord,* 47 N. E., 915.

Also:

> "An employee is a person who is employed; one who works for wages or a salary." *In re Cortland Mfg. Co.,* 45 N. Y. Sup. 630.

Under the provisions of the bankruptcy law, a director of a corporation is not entitled to the preferences for wages as an employee, and in the interpretation of this law, it has been frequently held that a managing director or superintendent is not an employee of the corporation. But the purposes of this law depend solely upon the public policy, which aims to prevent fraud upon the creditors of a corporation, where the directors, for the purpose of consuming the assets of the corporation, attempt to pay themselves exorbitant salaries as employees of the corporation.

Though under the provisions of the bankruptcy law and its interpretations, a director of a corporation is not, therefore, strictly speaking an employee of the corporation, I am of the opinion that this rule should not be followed in the interpretation of the eight hour law.

The term "employ" carries with it the idea and almost the essence of a contract. Therefore, when a corporation engages any of its stockholders or directors for any services on behalf of the corporation, for which they are paid a salary or wages, the corporation then employs such person, and it is immaterial whether the person so employed is considered strictly an employee or an officer of the corporation. When a director of a corporation performs duties outside of the natural duties of the Board of Directors, such person, whether engaged as a mere laborer, clerk or agent, or engaged as a superintendent or manager, is nevertheless employed by the corporation.

It can make no difference, therefore, as far as the provisions of this statute are concerned, whether a stockholder or director of a corporation is an officer or employee of the corporation. If she is employed by the corporation and paid a salary or wages by it, the corporation then comes within the provisions of the statute, and all of its restrictions become applicable to such employment.

Very truly yours,

U. S. WEBB, Attorney General.
By JOHN T. NOURSE, Deputy.

OPINION NO. 2383.

SAN FRANCISCO, October 26, 1912.

Hon. John P. McLaughlin, Commissioner, Bureau of Labor Statistics, San Francisco, Cal.

DEAR SIR: This office is in receipt of your communication of October 1, 1912, reading as follows:

> "On April 29th, 1912, I wrote to the various departments of the city and county of San Francisco, calling their attention to a violation of Stats. of 1893, page 54, providing for a weekly day of rest.
>
> I am enclosing herewith copy of an opinion rendered by the city attorney, together with correspondence and other data. You will notice that the city attorney—in his opinion—uses the term 'laborer,' whereas the language of the Act is far more comprehensive and reads, 'every person employed in any occupation of labor.' The city attorney also quotes provisions of the charter of the city and county of San Francisco, subdivision 24 of section 1, chap. 2, article 2, and chap. 3, article 2, which fixes the hours of service required of all laborers. Section 653 of the Penal Code covers a wider scope and provides that 'the time of service of any laborer, workman, or mechanic, employed upon any of the public works of the State of California, or of any political subdivision thereof . . . is limited and restricted to eight hours during any one calendar day.'
>
> I, therefore, submit for your opinion the following questions:
>
> (1) Does the language of Statutes of 1893, page 54, 'Every person employed in any occupation of labor' include all the employees in the various departments of a municipal corporation?

(2) Does the charter of the city and county of San Francisco take precedence over an act of the legislature?

(3) Is a municipal corporation amenable, and does it come under the provisions of Statutes of 1893, page 54?"

Accompanying your communication are several documents [illegible] which relate to the application of the act of 1893 with respect to the [illegible] and county of San Francisco and the various departments thereof. [illegible] am led to believe, therefore, that your communication is made with reference principally to the application of this statute to that city and county and as your questions are directed solely to the statute of 1893 I shall, in this opinion, confine my answers to your questions to the application of that statute to the city and county of San Francisco. If you desire the further opinion of this office with relation to its application to other municipal corporations I shall, of course, be pleased to render such opinion with respect to any particular corporation you may have in mind upon receiving your request therefor accompanied by any data you have to furnish.

(1) In answer to your first question let me direct your attention to the act of February 27, 1893 (Stats. 1893, p. 54), which provides as follows:

"SECTION 1. Every person employed in any occupation of labor shall be entitled to one day's rest therefrom in seven; and it shall be unlawful for any employer of labor to cause his employees, or any of them, to work more than six days in seven; *provided, however,* that the provisions of this section shall not apply to any case of emergency.

SEC. 2. For the purpose of this act, the term day's rest shall mean and apply to all cases, whether the employee is engaged by the day, week, month, or year, and whether the work performed is done in the day or night time.

SEC. 3 Any person violating the provisions of this act shall be deemed guilty of a midemeanor.

SEC. 4. This act shall take effect and be in force thirty days from and after its passage."

It will be noticed that the only penalty imposed by the act for a violation of its provisions is that any person violating such provisions shall be deemed guilty of a misdemeanor.

The punishment provided by law in cases of misdemeanors is either imprisonment or fines or both. Obviously a municipal corporation cannot be imprisoned. Admitting that there may be instances in which this municipality may be proceeded against under the provisions of chapter IX, title X, part II of the Penal Code and a fine be imposed upon and collected from it for the violation of the statute, in the same manner that a fine could be imposed upon and collected from a private person or corporation, such procedure would be fruitless and without results for the reason that only a fine could be imposed after conviction on a prosecution of the city and county of San Francisco for the violation of the provisions of a statute when such violation constitutes merely a misdemeanor, as it does under this statute, and the fine if collected would be immediately paid into the treasury of the city and county for its use, under the provisions of section 1457 and 1570 of the Penal Code.

In view of this fact I am of the opinion that the language of the act of February 27, 1893, can not extend to the city and county of San Francisco as an employer. Nor does the language of that act include the employees in the various departments of that municipal corporation, for they are employees of the municipal corporation. In other words the department, officer, or foreman, who as employing agent engages the employee and directs him in the performance of his work, is not his employer but merely his superior in authority. His employment is sanctioned by the municipal corporation and it is to that body alone that he must look for his pay. It is the municipal corporation alone that is to be regarded as the employer, and so regarded it is not to be deemed included within the terms of the act.

(2) In answer to your second question I have to advise you that under section 6 of article XI of the Constitution of the State of California, the charter of the city and county of San Francisco, except in municipal affairs, is subject to and controlled by an act of the legislature. Here, however, the act of the legislature, viz., the act of February 27, 1893, is inapplicable to the city and county of San Francisco and therefore no conflict arises and there is no necessity for discussing the question as to whether the charter of the city and county of San Francisco is subject to or controlled by such act.

(3) Your third question I have answered in my discussion of your first question.

Very truly yours,

U. S. WEBB, Attorney General.
By Robert W. Harrison, Deputy.

PART TWO.

STATISTICAL TABLES.

HOURS OF LABOR AND WAGES.

Tables I to VI—San Francisco.

In the investigation of hours of labor and wages paid in San Francisco, data was secured covering a total of 60,166 individuals. The establishments in which these individuals were employed were classified, according to their character, as manufacturing establishments, wholesale establishments, retail establishments, and miscellaneous establishments.

Manufacturing Establishments.

Data secured from manufacturing establishments covered 36,912 employees, 28,170, or 76.3 per cent of whom were males, and 8,742, or 23.7 per cent were females. Male employees: Of the 28,170 male employees, 188, or 0.7 per cent, worked less than 8 hours per day; 15,265, or 54.1 per cent, worked 8 hours; 9, 131, or 32.4 per cent, worked 9 hours; 2,778, or 9.9 per cent, worked 10 hours; 219, or 0.8 per cent, worked 11 hours; and 589, or 2.1 per cent, worked 12 hours and over. The wages received per week were classified in groups ranging from less than $3 to $25 and over. 1.0 per cent received less than $6; 4.9 per cent received from $6 to $8.99; 8.2 per cent received from $9 to $11.99; 14.1 per cent received from $12 to $14.99; 14.6 per cent received from $15 to $17.99; 12.9 per cent received from $18 to $20.99; 20.0 per cent received from $21 to $24.99; and 24.3 per cent received $25 and over. Of the total number considered, 71.8 per cent received $15 or over per week. Female employees: The hours of labor of female employees were eight or under, strict compliance with the eight-hour law for women having been enforced by this Bureau. Of the 8,742 females employed in manufacturing establishments, 8,551, or 97.8 per cent, worked 8 hours per day; and the remaining 191, or 2.2 per cent, worked less than 8 hours. The wages paid per week were classified in groups ranging from less than $3, to $25 and over. 0.1 per cent received less than $3; 6.4 per cent received from $3 to $5.99; 33.6 per cent received from $6 to $8.99; 29.8 per cent received from $9 to $11.99; 15.7 per cent received from $12 to $14.99; 7.6 per cent received from $15 to $17.99; 3.8 per cent received from $18 to $20.99; 1.3 per cent received from $21 to $24.99; and 1.7 per cent received $25 and over. Of the total number of female employees considered, 60.1 per cent received $9 or over per week.

Wholesale Establishments.

Data secured from wholesale establishments covered 10,397 individuals, 8,300, or 79.8 per cent of whom were males, and 2,097, or 20.2

per cent were females. Male employees: Of the 8,300 male employees, 27, or 0.3 per cent, worked less than 8 hours per day; 3,254, or 39.2 per cent, worked 8 hours; 4,149, or 50.0 per cent, worked 9 hours; 840, or 10.1 per cent, worked 10 hours; and 29, or 0.4 per cent, worked 11 hours or over. The wages received per week were classified in groups ranging from less than $3, to $25 and over. 1.1 per cent received less than $6; 5.4 per cent received from $6 to $8.99; 6.6 per cent received from $9 to $11.99; 9.3 per cent received from $12 to $14.99; 16.5 per cent received from $15 to $17.99; 13.0 per cent received from $18 to $20.99; 9.6 per cent received from $21 to $24.99; and 38.5 per cent received $25 and over. Of the total number considered, 77.6 per cent received $15 or over per week. Female employees: 64, or 3.1 per cent of the 2,097 female employees, worked less than 8 hours per day, and the remaining 2,033, or 96.9 per cent, worked 8 hours, longer hours of employment being prohibited by statute. The wages received per week, according to the classification arranged, were as follows: 3.0 per cent received less than $6; 21.8 per cent received from $6 to $8.99; 19.9 per cent received from $9 to $11.99; 19.3 per cent received from $12 to $14.99; 19.0 per cent received from $15 to $17.99; 8.9 per cent received from $18 to $20.99; 4.4 per cent received from $21 to $24.99; 3.7 per cent received $25 and over. Of the total number of female employees considered, 75.2 per cent received $9 or over per week.

Retail Establishments.

Data secured from retail establishments covered 10,249 individuals, 5,389, or 52.6 per cent of whom were males, and 4,860, or 47.4 per cent were females. Male employees: Daily hours of labor for male employees were as follows: for 55, or 1.0 per cent, less than 8 hours; for 1,937, or 35.9 per cent, 8 hours; for 3,081, or 57.2 per cent, 9 hours; for 300, or 5.6 per cent, 10 hours; and for 16, or 0.3 per cent, 11 hours or over. The wages received per week were classified in groups ranging from less than $3, to $25 and over. 0.1 per cent received less than $3; 3.6 per cent received from $3 to $5.99; 10.1 per cent received from $6 to $8.99; 6.5 per cent received from $9 to $11.99; 8.1 per cent received from $12 to $14.99; 14.7 per cent received from $15 to $17.99; 12.5 per cent received from $18 to $20.99; 12.5 per cent received from $21 to $24.99; and 31.9 per cent received $25 and over. Of the total number considered, 71. 6 per cent received $15 or over per week. Female employees: Practically all of the 4,860 female employees worked 8 hours per day, but 36, or 0.7 per cent, worked less than 8 hours, and the remaining 4,824, or 99.3 per cent, worked the 8-hour maximum allowed by the state law. The wages received per week were as follows: 1.1 per cent received less than $3; 9.3 per cent received from $3 to $5.99; 20.0 per cent received from $6 to $8.99; 20.9 per cent received from $9 to $11.99; 23.5 per cent received from $12 to $14.99; 11.8 per cent received from $15 to $17.99; 5.7 per cent received from $18 to $20.99; 4.0 per cent received from $21 to $24.99; 3.7 per cent received $25 and over. Of the total number of female employees considered, 69.6 per cent received $9 or over per week.

Miscellaneous Establishments.

A record of 2,608 individuals was obtained in the investigation of miscellaneous establishments. Of these, 2,220, or 85.1 per cent were males, and 388, or 14.9 per cent were females. Male employees: 181, or 8.1 per cent of the male employees, worked less than 8 hours per day; 526, or 23.7 per cent, worked 8 hours; 516, or 23.2 per cent, worked 9 hours; 939, or 42.3 per cent, worked 10 hours; 30, or 1.4 per cent, worked 11 hours; and 28, or 1.3 per cent, worked 12 hours and over. The wages received per week were as follows: 0.3 per cent received less than $6; 1.6 per cent received from $6 to $8.99; 2.5 per cent received from $9 to $11.99; 4.6 per cent received from $12 to $14.99; 15.6 per cent received from $15 to $17.99; 26.0 per cent received from $18 to $20.99; 24.7 per cent received from $21 to $24.99; 24.7 per cent received $25 and over. Of the total number considered, 91.0 per cent received $15 or over per week. Female employees: 159, or 41.0 per cent of the 388 female employees, worked less than 8 hours per day, and the remaining 229, or 59.0 per cent, worked the 8-hour maximum allowed by the state law. The wages received per week were as follows: 19.6 per cent received from $6 to $8.99; 20.1 per cent received from $9 to $11.99; 13.9 per cent received from $12 to $14.99; 18.8 per cent received from $15 to $17.99; 14.2 per cent received from $18 to $20.99; 6.2 per cent received from $21 to $24.99; and 7.2 per cent received $25 and over. Of the total number of female employees considered, 80.4 per cent received $9 or over per week.

All Establishments.

Of the total of 60,166 individuals, concerning whom data was secured in the investigation in San Francisco, 44,079, or 73.3 per cent were males, and 16,087, or 26.7 per cent were females. Male employees: Of the male employees, 451, or 1.0 per cent, worked less than 8 hours per day; 20,982, or 60.9 per cent, worked 8 hours; 16, 877, or 38.3 per cent, worked 9 hours; 4,857, or 11.0 per cent, worked 10 hours; 258, or 0.6 per cent, worked 11 hours; and 654, or 1.5 per cent. worked 12 hours. The wages received were classified in groups ranging from less than $3, to $25 and over per week. 1.3 per cent received less than $6; 5.5 per cent received from $6 to $8.99; 7.4 per cent received from $9 to $11.99; 12.0 per cent received from $12 to $14.99; 15.0 per cent received from $15 to $17.99; 13.5 per cent received from $18 to $20.99; 17.3 per cent received from $21 to $24.99 and 28.0 per cent received $25 and over. Of the total number considered, 73.8 per cent received $15 or over per week. Female employees: The hours of labor of female employees were limited to 8 hours or under per day, strict compliance with the eight hour law for women having been enforced by this

Bureau. Of the total of 16,087 female employees, concerning whom data was secured in San Francisco, 15,637, or 97.2 per cent, worked 8 hours per day, and the remaining 450, or 2.8 per cent, worked less than 8 hours. The wages received were classified in groups ranging from less than $3, to $25 and over, per week. 0.4 per cent received less than $3; 6.7 per cent received from $3 to $5.99; 27.6 per cent received from $6 to $8.99; 25.6 per cent received from $9 to $11.99; 18.5 per cent received from $12 to $14.99; 10.6 per cent received from $15 to $17.99; 5.3 per cent received from $18 to $20.99; 2.6 per cent received from $21 to $24.99; and 2.7 per cent received $25 and over. Of the total number of female employees considered in all establishments in San Francisco, 66.3 per cent received $9 or over per week.

Tables VII to XII—Los Angeles.

In the investigation of hours of labor and wages paid in Los Angeles, data was secured covering a total of 48,361 individuals. The establishments, in which these individuals were employed, were classified according to their character; as manufacturing, wholesale, retail and miscellaneous establishments.

Manufacturing Establishments.

Data secured from manufacturing establishments covered 29,125 employees, of whom 23,521, or 80.8 per cent, were males and 5,604, or 19.2 per cent, females. Male employees: Of the 23,521 males, 246, or 1.0 per cent, worked less than 8 hours per day; 6,355, or 27.0 per cent, 8 hours; 12,064, or 51.4 per cent, 9 hours; 4,230, or 18.0 per cent, 10 hours; 291, or 1.2 per cent, 11 hours; and 335, or 1.4 per cent, 12 hours. The wages per week were classified in groups ranging from less than $3, to $25 and over. 0.1 per cent received less than $3; 1.1 per cent from $3 to $5.99; 6.4 per cent from $6 to $8.99; 9.9 per cent from $9 to $11.99; 19.6 per cent from $12 to $14.99; 17.1 per cent from $15 to $17.99; 17.2 per cent from $18 to $20.99; 12.7 per cent from $21 to $24.99; and 15.9 per cent $25 and over. Of the total number considered, 62.9 per cent received $15 or over per week.

Female employees: The hours of labor for females were 8 hours or less per day, strict compliance with the 8 hour law for women having been enforced by this Bureau. Of the 5,604 females employed in manufacturing establishments, 5,551, or 99.1 per cent, worked 8 hours and the remaining 53, or 0.9 per cent, less than 8 hours. The wages per week were classified in groups ranging from less than $3, to $25 and over. 0.3 per cent received less than $3; 7.9 per cent from $3 to $5.99; 39.5 per cent from $6 to $8.99; 26.9 per cent from $9 to $11.99; 14.0 per cent from $12 to $14.99; 6.7 per cent from $15 to $17.99; 3.0 per cent from $18 to $20.99; 0.6 per cent from $21 to $24.99; and 1.1 per cent $25 and over. Of the total number considered, 52.3 per cent received $9 or over per week.

Wholesale Establishments.

Data secured from wholesale establishments covered 5,638 employees, of whom 4,820, or 85.5 per cent, were males and 818, or 14.5 per cent, females. Male employees: Of the 4,820 males, 6, or 0.1 per cent, worked less than 8 hours per day; 1,536, or 31.9 per cent, 8 hours; 2,617, or 54.3 per cent, 9 hours; 613, or 12.7 per cent, 10 hours; 18, or 0.4 per cent, 11 hours; and 30, or 0.6 per cent, 12 hours and over. The wages per week were classified in groups ranging from less than $6, to $25 and over. 0.3 per cent received less than $6; 5.2 per cent from $6 to $8.99; 5.5 per cent from $9 to $11.99; 18.5 per cent from $12 to 14.99; 21.7 per cent from $15 to $17.99; 13.2 per cent from $18 to $20.99; 7.0 per cent from $21 to $24.99; and 28.6 per cent $25 and over. Of the total number considered, 70.5 per cent received $15 or over per week.

Female employees: The hours of labor for females were 8 hours or less per day, strict compliance with the eight hour law for women having been enforced by this Bureau. Of the 818 females employed in wholesale establishments, 814, or 99.5 per cent, worked 8 hours and the remaining 4, or 0.5 per cent, less than 8 hours. The wages per week were classified in groups ranging from $3, to $25 and over. 2.6 per cent received from $3 to $5.99; 15.2 per cent from $6 to $8.99; 18.3 per cent from $9 to $11.99; 22.4 per cent from $12 to $14.99; 23.5 per cent from $15 to $17.99; 11.2 per cent from $18 to $20.99; 3.4 per cent from $21 to $24.99; and 3.4 per cent $25 and over. Of the total number considered, 82.2 per cent received $9 or over per week.

Retail Establishments.

Data received from retail establishments covered 11,604 employees, of whom 6,277, or 54.1 per cent, were males and 5,327, or 45.9 per cent, females. Male employees: Of the 6,277 males, 44, or 0.7 per cent, worked less than 8 hours; 1,167, or 18.6 per cent, 8 hours; 3,553, or 56.6 per cent, 9 hours; 1,320, or 21.0 per cent, 10 hours; 162, or 2.6 per cent, 11 hours; and 31, or 0.5 per cent, 12 hours and over. The wages per week were classified in groups ranging from less than $3, to $25 and over. 0.1 per cent received less than $3; 2.5 per cent from $3 to $5.99; 7.4 per cent from $6 to $8.99; 9.6 per cent from $9 to $11.99; 17.0 per cent from $12 to $14.99; 18.8 per cent from $15 to $17.99; 15.6 per cent from $18 to $20.99; 9.4 per cent from $21 to $24.99; and 19.6 per cent, $25 and over. Of the total number considered, 63.4 per cent received $15 or over per week.

Female employees: The hours of labor for females were 8 hours or less per day, strict compliance with the eight hour law for women having been enforced by this Bureau. Of the 5,327 females employed in retail establishments, 5,257, or 98.7 per cent, worked 8 hours and the remaining 70, or 1.3 per cent, less than 8 hours. The wages per week were classified in groups ranging from less than $3, to $25 and over. 0.3 per cent received less than $3; 12.6 per cent from $3 to $5.99; 25.9

per cent from $6 to $8.99; 25.9 per cent from $9 to $11.99; 16.5 per cent from $12 to $14.99; 10.5 per cent from $15 to $17.99; 5.1 per cent from $18 to $20.99; 0.9 per cent from $21 to $24.99; and 2.3 per cent $25 and over. Of the total number considered, 71.2 per cent received $9 or over per week.

Miscellaneous Establishments.

Data secured from miscellaneous establishments covered 1,994 employees, of whom 1,832, or 91.9 per cent, were males and 162, or 8.1 per cent, females. Male employees: Of the 1,832 males 475, or 25.9 per cent, worked 8 hours or less; 578, or 31.6 per cent, 9 hours; 738, or 40.3 per cent 10 hours; and 41, or 2.2 per cent, 11 hours and over. The wages per week were classified in groups ranging from less than $3, to $25 and over. 1.2 per cent received less than $3; 0.1 from $3 to $5.99; 1.0 per cent from $6 to $8.99; 3.1 per cent from $9 to $11.99; 23.7 per cent from $12 to $14.99; 37.6 per cent from $15 to $17.99; 14.1 per cent from $18 to $20.99; 6.3 per cent from $21 to $24.99; and 12.9 per cent $25 and over. Of the total number considered, 70.9 per cent received $15 or over per week.

Female employees: The hours of labor for females were 8 hours or less per day, strict compliance with the eight hour law for women having been enforced by this Bureau. Of the 162 females employed in miscellaneous establishments, 141, or 87.0 per cent, worked 8 hours and the remaining 21, or 13.0 per cent, less than 8 hours. The wages per week were classified in groups ranging from $6 to $25 and over. 15.4 per cent received from $6 to $8.99; 19.8 per cent from $9 to $11.99; 27.2 per cent from $12 to $14.99; 21.0 per cent from $15 to $17.99; 8.0 per cent from $18 to $20.99; 4.9 per cent from $21 to $24.99; and 3.7 per cent $25 and over. Of the total number considered, 84.6 per cent received $9 or over per week.

All Establishments.

Of the total of 48,361 individuals, concerning whom data was secured in the investigation in Los Angeles, 36,450, or 75.4 per cent, were males and 11,911, or 24.6 per cent, females. Male employees: Of the 36,450 males, 297, or 0.8 per cent, worked less than 8 hours; 9,532, or 26.2 per cent, 8 hours; 18,812, or 51.6 per cent, 9 hours; 6,901, or 18.9 per cent, 10 hours; 472, or 1.3 per cent, 11 hours; and 436, or 1.2 per cent, 12 hours and over. The wages per week were classified in groups ranging from less than $3, to $25 and over. 0.1 per cent received less than $3; 1.2 per cent from $3 to $5.99; 6.2 per cent from $6 to $8.99; 9.0 per cent from $9 to $11.99; 19.2 per cent from $12 to $14.99; 19.0 per cent from $15 to $17.99; 16.2 per cent from $18 to $20.99; 11.0 per cent from $21 to $24.99; and 18.1 per cent $25 and over. Of the total number considered, 64.3 per cent received $15 and over per week.

Female employees: The hours of labor of female employees were limited to 8 hours or less per day, strict compliance with the eight hour law for women having been enforced by this Bureau. Of the total of 11,911 females, concerning whom data was secured in Los Angeles, 11,763, or 98.8 per cent, worked 8 hours and the remaining 148, or 1.2 per cent, less than 8 hours. The wages received were classified in groups ranging from less than $3, to $25 and over per week. 0.3 per cent received less than $3; 9.5 per cent from $3 to $5.99; 31.4 per cent from $6 to $8.99; 25.8 per cent from $9 to $11.99; 15.9 per cent from $12 to $14.99; 9.7 per cent from $15 to $17.99; 4.6 per cent from $18 to $20.99; 1.0 per cent from $21 to $24.99; and 1.8 per cent $25 and over. Of the total number considered, 58.8 per cent received $9 or over per week.

Tables XIII to XVIII—Oakland.

In the investigation of hours of labor and wages paid in Oakland, data was secured covering a total of 9,777 individuals. Of this number, 6,934, or 70.9 per cent, were males, and 2,834, or 29.1 per cent, were females.

Male employees: 111, or 1.6 per cent, of the male employees, worked less than 8 hours per day; 3,042, or 43.9 per cent, worked 8 hours; 2,657, or 38.3 per cent, worked 9 hours; 1,059, or 15.3 per cent, worked 10 hours; and 65, or 0.9 per cent, worked 11 hours or over. The wages paid were classified in groups ranging from less than $3, to $25 and over, per week. 0.1 per cent received less than $3; 2.5 per cent received from $3 to $5.99; 4.8 per cent received from $6 to $8.99; 8.4 per cent received from $9 to $11.99; 10.1 per cent received from $12 to $14.99; 16.6 per cent received from $15 to $17.99; 17.0 per cent received from $18 to $20.99; 18.6 per cent received from $21 to $24.99; and 21.9 per cent received $25 and over. Of the total number considered, 74.1 per cent received $15 or over per week.

Female employees: The daily hours of labor of female employees were limited to 8 hours or under per day, strict compliance with the eight-hour law for women having been enforced by this Bureau. Of the total of 2,843 female employees, concerning whom data was secured in Oakland, 2,785, or 98.0 per cent, worked 8 hours per day, and the remaining 58, or 2.0 per cent, worked less than 8 hours. The wages paid were classified in groups ranging from less than $3, to $25 and over, per week. 11.4 per cent received less than $6; 41.4 per cent received from $6 to $8.99; 21.9 per cent received from $9 to $11.99; 12.3 per cent received from $12 to $14.99; 6.5 per cent received from $15 to $17.99; 3.5 per cent received from $18 to $20.99; 1.3 per cent received from $21 to $24.99; 1.7 per cent received $25 and over. Of the total number considered, 47.2 per cent received $9 or over per week.

Tables XIX to XXIV—Sacramento.

In the investigation of hours of labor and wages paid in Sacramento, data was secured covering a total of 4,662 individuals. Of this number 3,327, or 71.4 per cent, were males, and 1,335, or 28.6 per cent, were females. Male employees: 19, or 0.6 per cent of the male employees, worked less than 8 hours per day; 1,655, or 49.8 per cent, worked 8 hours; 1,086, or 32.6 per cent, worked 9 hours per day; 512, or 15.4 per cent, worked 10 hours; 37, or 1.1 per cent, worked 11 hours; and 18, or 0.5 per cent, worked 12 hours. The wages paid were classified in groups ranging from less than $3, to $25 and over per week; 0.3 per cent received less than $3; 2.2 per cent received from $3 to $5.99; 5.1 per cent received from $6 to $8.99; 5.8 per cent received from $9 to $11.99; 9.2 per cent received from $12 to $14.99; 18.1 per cent received from $15 to $17.99; 17.8 per cent received from $18 to $20.99; 15.4 per cent received from $21 to $24.99; and 26.1 per cent received $25 and over. Of the total number considered 77.4 per cent received $15 or over per week. Female employees: The hours of labor of female employees were limited to 8, or under, per day, strict compliance with the eight-hour law for women being required by this Bureau. Of the total of 1,335 female employees, concerning whom data was secured in Sacramento, 1,311, or 98.2 per cent, worked 8 hours per day, and the remaining 24, or 1.8 per cent, worked less than 8 hours. The wages paid were classified in groups, ranging from less than $3 to $25 and over per week. 1.7 per cent received less than $3; 16.0 per cent received from $3 to $5.99; 30.3 per cent received from $6 to $8.99; 25.4 per cent received from $9 to $11.99; 11.0 per cent received from $12 to $14.99; 7.9 per cent received from $15 to $17.99; 3.3 per cent received from $18 to $20.99; 1.7 per cent received from $21 to $24.99; 2.7 per cent received $25 and over. Of the total number considered, 52.0 per cent received $9 or over per week.

Tables XXV to XXX—San José.

In the investigation of hours of labor and wages paid in San José, data was secured covering a total of 1,862 individuals. Of this number 1,308, or 70.2 per cent, were males, and 554, or 29.8 per cent, were females. Male employees: 23, or 1.8 per cent of the male employees, worked less than 8 hours per day; 525, or 40.1 per cent, worked 8 hours; 418, or 32.0 per cent, worked 9 hours; 305, or 23.3 per cent, worked 10 hours; 7, or 0.5 per cent, worked 11 hours; and 30, or 2.3 per cent, worked 12 hours or over. The wages paid were classified in groups ranging from less than $3 to $25 and over per week. 1.7 per cent received less than $3; 1.8 per cent received from $3 to $5.99; 4.9 per cent received from $6 to $8.99; 5.7 per cent received from $9 to $11.99; 13.1 per cent received from $12 to $14.99; 16.7 per cent received from $15 to $17.99; 19.0 per cent received from $18 to $20.99; 13.4 per cent received from $21 to $24.99; 23.7 per cent received $25 and over. Of the total number considered, 72.8 per cent received $15 or over per week. Female employees: The hours of labor of female employees were limited to 8 or under per day, strict compliance with the eight hour law for women having been required by this Bureau. Of the total 554 female employees, concerning whom data was secured in San José, 546, or 98.6 per cent, worked 8 hours per day, and the remaining 8, or 1.4 per cent, worked less than 8 hours. The wages paid were classified in groups ranging from less than $3 to $25 and over per week. 2.3 per cent received less than $6; 34.5 per cent received from $6 to $8.99; 33.4 per cent received from $9 to $11.99; 18.1 per cent received from $12 to $14.99; 5.8 per cent received from $15 to $17.99; 3.2 per cent received from $18 to $20.99; 1.1 per cent received from $21 to $24.99; 1.6 per cent received $25 and over. Of the total number considered, 63.2 per cent received $9 or over per week.

Tables XXXI to XXXVI—Stockton.

In the investigation of hours of labor and wages paid in Stockton, data was secured covering 2,606 individuals. Of this number, 2,079, or 79.8 per cent, were males, and 527, or 20.2 per cent, were females. Male Employees: 13, or 0.6 per cent, of the male employees, worked less than 8 hours per day; 587, or 28.2 per cent, worked 8 hours; 1,095, or 52.7 per cent, worked 9 hours; 350, or 16.8 per cent, worked 10 hours; 24, or 1.2 per cent, worked 11 hours; 10, or 0.5 per cent, worked 12 hours or over. The wages paid were classified in groups ranging from less than $3 to $25 and over per week. 0.1 per cent received less than $3; 1.6 per cent received from $3 to $5.99; 4.5 per cent received from $6 to $8.99; 6.6 per cent received from $9 to $11.99; 13.0 per cent received from $12 to $14.99; 15.6 per cent received from $15 to $17.99; 21.0 per cent received from $18 to $20.99; 20.6 per cent received from $21 to $24.99; 17.0 per cent received $25 and over. Of the total number considered 74.2 per cent received $15 or over per week. Female Employees: The daily hours of labor of female employees were limited to 8 or under per day, strict compliance with the eight hour law for women having been required by this Bureau. Of the total of 527 female employees, concerning whom data was secured in Stockton, 518, or 98.3 per cent, worked 8 hours per day, and the remaining 9, or 1.7 per cent, worked less than 8 hours. The wages paid were classified in groups ranging from less than $3 to $25 and over per week. 1.5 per cent received less than $3; 3.2 per cent received from $3 to $5.99; 30.0 per cent received from $6 to $8.99; 28.1 per cent received from $9 to $11.99; 16.9 per cent received from $12 to $14.99; 11.2 per cent received from $15 to $17.99; 5.9 per cent received from $18 to $20.99; 0.6 per cent received from $21 to $24.99; 2.6 per cent received $25 and over. Of the total number considered 65.3 per cent received $9 or over per week.

Tables XXXVII to XLII—San Diego.

In the investigation of hours of labor and wages paid in San Diego, data was secured covering a total of 3,702 individuals. Of this number 2,626, or 70.9 per cent, were males, and 1,076, or 29.1 per cent, were females. Male employees: 12, or 0.5 per cent, of the male employees, worked less than 8 hours per day; 749, or 28.5 per cent, worked 8 hours; 1,214, or 46.2 per cent, worked 9 hours; 633, or 24.1 per cent, worked 10 hours; 8, or 0.3 per cent, worked 11 hours; 10, or 0.4 per cent, worked

12 hours and over. The wages paid were classified in groups ranging from less than $3 to $25 and over per week. 0.4 per cent received less than $3; 2.2 per cent received from $3 to $5.99; 4.6 per cent received from $6 to $8.99; 8.5 per cent received from $9 to $11.99; 9.5 per cent received from $12 to $14.99; 27.1 per cent received from $15 to $17.99; 20.4 per cent received from $18 to $20.99; 12.3 per cent received from $21 to $24.99; 15.0 per cent received $25 and over. Of the total number considered 74.8 per cent received $15 and over per week. Female employees: The daily hours of labor of female employees were limited to 8 hours or under per day, strict compliance with the eight hour law for women being required by this Bureau. Of the total of 1,076 female employees, concerning whom data was secured in San Diego, 1,029, or 95.6 per cent, worked 8 hours per day, and the remaining 47, or 4.4 per cent, worked less than 8 hours. The wages paid were classified in groups ranging from less than $3 to $25 and over per week. 1.4 per cent received less than $3; 7.2 per cent received from $3 to $5.99; 41.3 per cent received from $6 to $8.99; 18.9 per cent received from $9 to $11.99; 16.0 per cent received from $12 to $14.99; 9.8 per cent received from $15 to $17.99; 3.0 per cent received from $18 to $20.99; 0.6 per cent received from $21 to $24.99; 1.8 per cent received $25 and over. Of the total number considered, 50.1 per cent received $9 or over per week.

Table XLIX—Summary for State.

Data was secured covering 145,154 individuals, in the investigation of hours of labor and wages paid throughout the State. Of this number 107,950, or 74.4 per cent, were males, and 37,204, or 25.6 per cent, were females. Male employees: 1,051, or 1.0 per cent, of the male employees worked less than 8 hours per day; 39,532, or 36.6 per cent, worked 8 hours; 46,627, or 43.2 per cent, worked 9 hours; 18,115, or 16.8 per cent, worked 10 hours; 950, or 0.9 per cent, worked 11 hours; and 1,675, or 1.5 per cent, worked 12 hours. The wages paid were classified in groups ranging from less than $3, to $25 and over, per week. 0.1 per cent received less than $3; 1.4 per cent received from $3 to $5.99; 5.3 per cent received from $6 to $8.99; 7.8 per cent received from $12 to $14.99; 17.8 per cent received from $15 to $17.99; 15.3 per cent received from $18 to $20.99; 14.8 per cent received from $21 to $24.99; 22.2 per cent received $25 and over. Of the total number considered, 70.1 per cent received $15 or over per week.

Female employees: The hours of labor of female employees were limited to 8 or under per day, strict compliance with the eight-hour law for women, being required by this Bureau. Of the total of 37,204 female employees, concerning whom data was secured throughout the state, 36,362, or 97.7 per cent, worked 8 hours per day, and the remaining 842, or 2.3 per cent, worked less than 8 hours. The wages paid were classified in groups ranging from less than $3, to $25 and over, per week. 0.4 per cent received less than $3; 8.1 per cent received from $3 to $5.99; 31.3 per cent received from $6 to $8.99; 25.7 per cent received from $9 to $11.99; 16.4 per cent received from $12 to $14.99; 9.6 per cent received from $15 to $17.99; 4.6 per cent received from $18 to $20.99; 1.7 per cent received from $21 to $24.99; 2.2 per cent received $25 and over. Of the total number considered, 60.2 per cent received $9 or over per week.

TABLE No. 1. CITY OF SAN FRANCISCO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Automobiles and Accessories.	8	establishments.														
Manufacturing:																
Blacksmiths	4			4										2	2	
Blacksmiths, helpers	3			3								1		2		
Managers and foremen	5		4	1												5
Machinists	9		3	6									1	4	4	
Mechanics	22		5	17						2	2	5	3	1	7	2
Seamstresses	1		1										1			
Sheet metal workers	8		8											2	5	1
Sheet metal workers, apprentices	4		4							2		2				
Spring fitters and grinders	3			3										1	2	
Clerical:																
Bookkeepers	2		1	1										1		1
Bookkeepers (F.)	2		2											1		1
Salesmen	2		1	1												2
Stock clerks	2		1	1									1		1	
Stenographers (F.)	3		3									1	1			1
Totals	70		33	37						4	2	9	7	14	21	13
Awnings, Tents, etc.	4	establishments.														
Manufacturing:																
Awning fixture makers	12		5	7							2	1	1	3	4	1
Awning hangers	2			2											2	
Cutters	12			12							3	4	2	2	1	
Die makers	4			4									2		2	
Engravers	2			2											2	
Machinists	4			4								1			2	1
Managers and foremen	3		1	2											1	2
Managers and forewomen	2		2										1		1	
Operators (F.)	46		46							24	8	8	4	2		
Porters and packers	8			7			1					2	2	4		
Pressmen	9			9					3		2	2		1	1	
Sail makers	3			3											3	

Seamstresses	29		29							18	11					
General help	14			14					1	9	1	1	2			
General help (F.)	17		17						6	8	2	1				
Clerical:																
Bookkeepers	2			2									1			1
Bookkeepers (F.)	3		3								1		1	1		
Cashiers (F.)	2		2											1		1
Office clerks	4		3	1						1		2			1	
Office clerks (F.)	1		1									1				
Salesmen	14		10	4							1			1	2	10
Shipping clerks	3			3									1		2	
Stenographers (F.)	7		7								1	2	3		1	
Stock clerks	1			1									1			
Totals	204		126	77			1		10	60	32	25	21	15	25	16
Bags, Paper and Burlaps.	5	establishments.														
Manufacturing:																
Factory help	37		5	29	3					8	5	16	5	3		
Factory help (F.)	131		131							102	24	5				
Managers and foremen	5	1		4											1	4
Operators (F.)	6		6							3	2		1			
Porters and packers	8			8									7	1		
Printers	1				1						1					
Clerical:																
Bookkeepers	2	1		1						1						1
Bookkeepers (F.)	1		1							1						
Cashiers	2	1	1									1	1			
Errand boys	1	1								1						
Office clerks	2	2														2
Office clerks (F.)	1	1											1			
Salesmen	11	3	7	1								1	2		4	4
Shipping clerks	2	1		1									1	1		
Stenographers (F.)	3	2	1								1			1	1	
Totals	213	13	152	44	4					116	33	23	18	6	6	11
Bakery Products.	31	establishments.														
Manufacturing:																
Bakers	174	6	8	152	8							4	5	43	81	41
Bakers, apprentices	9		1	4	4					2	1	5		1		
Bakers, helpers	63			54	9			1		5	9	41	7			
Bus boys	4				4				1	2	1					

TABLE No. 1. CITY OF SAN FRANCISCO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by Industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Cooks	48	------	3	9	30	6	------	------	------	------	------	------	4	21	15	8
Cooks, helpers	25	------	------	1	22	1	1	------	------	------	16	7	1	1	------	------
Drivers	68	------	2	59	7	------	------	------	------	------	1	1	6	13	46	1
Firemen	3	------	3	------	------	------	------	------	------	------	------	------	------	2	1	------
Kitchen help	50	------	------	------	29	18	3	------	------	------	43	5	2	------	------	------
Kitchen help (F.)	1	1	------	------	------	------	------	------	1	------	------	------	------	------	------	------
Machinists	3	------	------	3	------	------	------	------	------	------	------	------	------	2	------	1
Managers and foremen	14	------	------	6	3	2	3	------	------	------	------	------	1	------	3	10
Meat cutters	2	1	------	------	1	------	------	------	------	------	------	------	2	------	------	------
Porters and packers	23	------	------	18	5	------	------	------	------	------	5	1	7	7	3	------
Stablemen	8	------	------	5	3	------	------	------	------	1	------	------	------	------	6	1
Waiters	39	2	------	------	37	------	------	------	------	2	1	33	3	------	------	------
Waitresses	118	------	118	------	------	------	------	------	------	89	25	1	1	2	------	------
Clerical:																
Bookkeepers	5	------	------	2	3	------	------	------	------	------	1	------	------	1	1	2
Bookkeepers (F.)	1	------	1	------	------	------	------	------	------	------	1	------	------	------	------	------
Cashiers	1	------	1	------	------	------	------	------	------	------	------	------	------	------	------	1
Cashiers (F.)	14	------	14	------	------	------	------	------	------	4	6	2	1	1	------	------
Collectors	2	------	1	1	------	------	------	------	------	------	------	------	------	------	1	1
Office clerks	1	------	------	------	1	------	------	------	------	------	------	------	1	------	------	------
Office clerks (F.)	3	------	3	------	------	------	------	------	------	------	2	------	------	------	1	------
Salesmen	21	------	2	2	17	------	------	------	------	------	------	------	------	3	------	18
Saleswomen	31	1	30	------	------	------	------	------	1	19	9	2	------	------	------	------
Shipping clerks	4	------	------	4	------	------	------	------	------	------	------	------	------	------	4	------
Totals	735	11	187	320	183	27	7	1	3	124	121	102	41	97	162	81
Bar and Store Fixtures, Billiards, etc.	10	establishments.														
Manufacturing:																
Bench hands	34	------	34	------	------	------	------	------	------	------	------	------	------	------	------	34
Bench hands, apprentices	5	------	5	------	------	------	------	------	------	------	------	1	3	------	1	------
Cabinetmakers	114	------	114	------	------	------	------	------	------	------	------	------	------	2	21	91
Cabinetmakers, apprentices	50	------	47	3	------	------	------	------	1	1	7	11	20	10	------	------

Carpenters	118	------	118	------	------	------	------	------	------	------	------	10	------	------	1	107
Draughtsmen	11	------	11	------	------	------	------	------	------	------	------	1	------	------	1	9
Engineers	3	------	1	2	------	------	------	------	------	------	------	------	------	2	1	------
Glaziers	2	------	2	------	------	------	------	------	------	------	------	1	------	------	1	------
Lumber hands	6	------	------	1	5	------	------	------	------	------	------	4	2	------	------	------
Managers and foremen	17	------	15	------	2	------	------	------	------	------	------	------	------	------	------	17
Mill hands	43	------	42	1	------	------	------	------	------	------	1	2	3	6	17	14
Planers	3	------	3	------	------	------	------	------	------	------	------	1	------	------	2	------
Sanders	1	------	1	------	------	------	------	------	------	------	------	------	------	------	1	------
Sawyers	3	------	3	------	------	------	------	------	------	------	------	------	------	------	1	2
Stickers	2	------	2	------	------	------	------	------	------	------	------	------	------	------	------	2
Tallymen	1	------	------	------	1	------	------	------	------	------	------	------	------	------	1	------
Teamsters	6	------	4	1	------	1	------	------	------	------	1	1	1	------	2	1
Tinners	1	------	1	------	------	------	------	------	------	------	------	------	------	------	------	1
Varnishers and finishers	44	------	44	------	------	------	------	------	------	------	------	------	1	1	40	2
Watchmen	2	------	------	------	------	------	2	------	------	------	------	1	1	------	------	------
Wood carvers	2	------	2	------	------	------	------	------	------	------	------	------	------	------	------	2
General help	16	------	7	8	1	------	------	------	1	1	------	3	11	------	------	------
Clerical:																
Bookkeepers	5	------	3	1	1	------	------	------	------	------	------	------	------	------	3	2
Bookkeepers (F.)	3	1	2	------	------	------	------	------	------	------	1	------	1	------	------	1
Errand boys	4	------	2	------	2	------	------	------	1	2	1	------	------	------	------	------
Office clerks	2	------	------	------	2	------	------	------	------	------	1	------	------	------	------	1
Salesmen	1	------	1	------	------	------	------	------	------	------	------	------	------	------	------	1
Stenographers (F.)	1	------	1	------	------	------	------	------	------	------	------	------	1	------	------	------
Totals	500	1	465	17	14	1	2	------	3	4	12	36	44	21	93	287
Blacksmithing and Horseshoeing.	5	establishments.														
Manufacturing:																
Blacksmiths	19	------	15	4	------	------	------	------	------	------	------	------	------	------	4	15
Blacksmiths, apprentices	1	------	1	------	------	------	------	------	------	------	1	------	------	------	------	------
Blacksmiths, helpers	42	------	40	2	------	------	------	------	------	------	1	3	5	31	2	------
Engineers	2	------	2	------	------	------	------	------	------	------	------	------	------	------	1	1
Housesmiths	4	------	------	4	------	------	------	------	------	------	------	------	3	------	1	------
Machine hands	1	------	------	1	------	------	------	------	------	------	------	------	------	1	------	------
Machinists, helpers	1	------	------	1	------	------	------	------	------	------	------	------	1	------	------	------
Managers and foremen	2	------	2	------	------	------	------	------	------	------	------	------	------	------	------	2
Spring makers	16	------	16	------	------	------	------	------	------	------	1	2	6	3	1	3
Teamsters	1	------	1	------	------	------	------	------	------	------	------	------	------	------	1	------
Tool grinders	1	------	------	1	------	------	------	------	------	------	------	------	1	------	------	------
Watchmen	1	------	------	------	------	------	1	------	------	------	------	------	1	------	------	------

TABLE No. 1. CITY OF SAN FRANCISCO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical:																
Bookkeepers (F.)	2		2										2			
Shipping clerks	3		1	2							1		1	1		
Totals	96		80	15			1				4	5	20	36	10	21
Boilers, Engines, and Tanks.	9	establishments.														
Manufacturing:																
Blacksmiths	5		5													5
Blacksmiths, helpers	4		4										3	1		
Boilermakers	57		57												33	24
Boilermakers, apprentices	8		8								2		6			
Boilermakers, helpers	48		48							2	1	24	8	13		
Carpenters	1		1										1			
Engineers	1		1											1		
Machine hands	5		5								1		2	2		
Machinists	41		41												39	2
Machinists, apprentices	7		7						3	2	1	1				
Machinists, helpers	5		5									5				
Managers and foremen	2		2													2
Storeroom men	1		1										1			
Clerical:																
Bookkeepers	3		3												2	1
Bookkeepers (F.)	4		4										1	3		
Office clerks	1		1									1				
Salesmen	1		1													1
Totals	194		194						3	4	5	31	22	20	74	35
Boots and Shoes.	3	establishments.														
Manufacturing:																
Boot and shoe workers	179			179					4	10	17	22	40	37	35	14
Boot and shoe workers (F.)	96		96						13	19	38	21	5			
Engineers	1				1									1		

Managers and foremen	6		1	5											2	4
Managers and forewomen	1		1													1
Packers (F.)	3		3							2		1				
Porters and packers	6		1	5							2	1		2	1	
Clerical:																
Bookkeepers	4		4													4
Bookkeepers (F.)	2		2										1		1	
Collectors	1		1									1				
Errand boys	2		2							2						
Office clerks	1		1										1			
Salesmen	6		6													6
Shipping clerks	2		1	1										2		
Stenographers (F.)	6		6								1	2	1	1	1	
Stock clerks	10		10										10			
Totals	326		135	190	1				17	33	58	48	58	43	40	29
Boxes, Paper.	11	establishments.														
Manufacturing:																
Box makers	73		8	65						3	16	22	16	11	4	1
Box makers (F.)	206		206						65	95	39	6	1			
Machinists	1			1												1
Managers and foremen	7		2	5												7
Managers and forewomen	4		4								1	2	1			
Packers and labelers (F.)	1		1							1						
Paper cutters	2		1	1									1			1
Porters and packers	2		2								2					
Printers	24		21	3					1		2	2	8	5	3	3
Printers (F.)	1		1										1			
Teamsters	5			5							2		1	2		
Watchmen	1						1					1				
Clerical:																
Bookkeepers	2		1	1									1			1
Bookkeepers (F.)	5		5								2	1	1	1		
Cashiers	1			1											1	
Errand boys	2			2					1		1					
Salesmen	5		1	4												5
Shipping clerks	2			2									1	1		
Stenographers (F.)	3		3								1	1	1			
Stock clerks	1			1									1			
Totals	348		256	91			1		67	99	66	35	34	20	8	19

TABLE No. 1. CITY OF SAN FRANCISCO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over
Boxes, Wood.	6	establishments.														
Manufacturing:																
Bench hands	45			45								8	37			
Box makers	32			32					4	7	1		20			
Box makers (F.)	24		24							23	1					
Engineers	3			1	2								1			2
Lumber hands	14			14								6	7		1	
Machine hands	27			27									27			
Managers and foremen	13			13										1	2	10
Managers and forewomen	1		1									1				
Millwrights	1			1											1	
Mill hands	48			48								12	30	6		
Planers	7			7								2		4	1	
Printers	8			8							4		4			
Sawyers	50			50							7	2	30	11		
Saw filers	1			1												1
Stablemen	2			1	1								1	1		
Teamsters	16			10	6						3			10	3	
General help	56			56						11	9	35	1			
Clerical:																
Bookkeepers	3		1	2										1		2
Bookkeepers (F.)	2		2									1	1			
Cashiers (F.)	1		1												1	
Office clerks	2		2											1		1
Salesmen	4			4										1		3
Stenographers (F.)	1		1													1
Totals	361		32	320	9				4	41	25	67	159	36	9	20
Brick, Tile, Pottery, etc.	1	establishment.														
Manufacturing:																
Engineers	1				1											1
Managers and foremen	1				1											1
General help	31				31						10	18	3			

Clerical:																
Bookkeepers (F.)	2		2											1	1	
Stenographers (F.)	1		1										1			
Totals	36		3		33						10	18	4	1	1	2
Cans, Tin.	4	establishments.														
Manufacturing:																
Blacksmiths	2			2											2	
Factory help	428		23	405						78	256	43	44	3	4	
Factory help (F.)	105		105							61	19	25				
Machinists	21		8	13											21	
Machinists, apprentices	5		2	3						2	2	1				
Machinists, helpers	4			4									4			
Managers and foremen	10			10											1	9
Mechanics	4			4										2	2	
Warehousemen	24			24								24				
Clerical:																
Bookkeepers	4			4											3	1
Office clerks	7		2	5						2		2	2	1		
Stenographers (F.)	1		1										1			
Totals	615		141	474						143	277	95	51	6	33	10
Carriages and Wagons.	8	establishments.														
Manufacturing:																
Blacksmiths	20		20										3	2	13	2
Blacksmiths, apprentices	2		2								2					
Blacksmiths, helpers	22		22								1	6	6	9		
Chauffeurs	3		3										1	1	1	
Electricians	1		1											1		
Finishers	4		4											3	1	
Machinists	17		17										1	4	8	4
Machinists, helpers	9		9								2	5	1	1		
Managers and foremen	14		14											2	3	9
Painters	27		27								2	3	5	8	7	2
Porters and packers	23		22				1						22	1		
Sheet metal workers	1		1												1	
Teamsters	1		1								1					
Trimmers	1		1												1	
Wagon makers	8		8										1		7	
Wood workers	10		10										1	2	5	2
Wood workers, apprentices	1		1								1					

TABLE No. 1. CITY OF SAN FRANCISCO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Wheelwrights	5		5												5	
General help	17		17						2	4	4	4	3			
Clerical:																
Bookkeepers	5		5									1	1		3	
Bookkeepers (F.)	5	1	4									2	2	1		
Cashiers	1		1											1		
Collectors	1		1									1				
Office clerks	18		18									5	4	2	4	3
Office clerks (F.)	3		3								2					1
Salesmen	17		17												4	13
Shipping clerks	1			1									1			
Stenographers (F.)	10		10								1	5	3		1	
Totals	247	1	244	1			1		2	4	16	32	55	38	64	36
Carpets and Rugs.	4	establishments.														
Manufacturing:																
Carpet layers	1			1												1
Cutters	1			1												1
Seamstresses	4		4							1		3				
Shade makers	2			2									1			1
Spinners (F.)	4		4							4						
Teamsters	3			3									1	2		
Upholsterers	1		1													1
Weavers	4			4										4		
General help	6			6						2	1		1	2		
Clerical:																
Bookkeepers	1		1									1				
Totals	27		10	17						7	1	4	3	8		4

Cigars and Cigarettes.	7	establishments.														
Manufacturing:																
Banders (F.)	9		9							3	2	4				
Cigar makers	244		229	15							1	36	71	62	57	17
Cigar makers (F.)	70		70								10	60				
Machine operators	11			11								1	6	1	3	
Machine operators (F.)	17		17							6	11					
Managers and foremen	16		5	11										2	1	13
Managers and forewomen	3		3									2	1			
Packers and labelers (F.)	58		58							26	23	9				
Porters and packers	28		15	13						2	1	4	6	1	5	9
Strippers (F.)	72		72						20	48	4					
Tobacco workers	13			13								4	7	2		
Wrappers (F.)	11		11							3		8				
General help	20		1	19					2	6	3	3	1	3	1	1
Clerical:																
Bookkeepers	3		2	1												3
Bookkeepers (F.)	6		6								1		3	1		1
Errand boys	5		3	2						4	1					
Office clerks	6		6									1	1	2		2
Office clerks (F.)	7		7							1		3	2	1		
Salesmen	13		11	2											1	12
Shipping clerks	3			3										1		2
Stenographers (F.)	3		3										2	1		
Totals	618		528	90					22	99	57	135	100	77	68	60
Clothing.	48	establishments.														
Manufacturing:																
Cap makers	2		2												1	1
Cutters	130		91	39						5	4	7	3	49	39	23
Cutters (F.)	2		2													2
Designers (F.)	3		3											1		2
Finishers (F.)	91		91						1	32	21	22	10	5		
Fitters	2			2												2
Fitters (F.)	22		22									12	1	3	2	4
Fur cutters and nailers	7		7											1	2	4
Fur finishers	3		1	2							2	1				
Fur finishers (F.)	21		21							2	8	11				
Fur operators	3		3										2	1		
Furriers	5			5									1	1		3
Knitters	6		6								1	2	1	2		
Knitters (F.)	35		35							12	17	6				
Managers and foremen	18		16	2											1	17

TABLE No. 1. CITY OF SAN FRANCISCO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

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		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Managers and forewomen	53		53							5	7	17	13	6	3	2
Operators	73		68	5										6	55	12
Operators (F.)	1397	5	1392					2	149	370	452	300	100	17	2	5
Porters and packers	21		16	5						1	4	6	1	6	2	1
Pressers	27		22	5							2	1		10	10	4
Pressers (F.)	50		50							11	24	14	1			
Seamstresses	152		152						8	47	43	33	10	2	1	8
Tailors	3		3												2	1
Teamsters	2		2													2
Trimmers	2			2									1			1
Trimmers (F.)	11		11						3	7	1					
General help	32		26	6						6	3	1	6	8	4	4
General help (F.)	97		97							42	33	19	2	1		
Clerical:																
Bookkeepers	5		3	2												5
Bookkeepers (F.)	22	1	21								7	3	4	2	4	2
Cashiers	3		3													3
Cashiers (F.)	2		2											1		1
Errand boys	25	2	15	8				1	6	14	4					
Office clerks	4		3	1							2	1				1
Office clerks (F.)	7		7						1	2	1	2		1		
Salesmen	39		27	12						1	1		4	5	6	22
Saleswomen	54		54							2	3	7	21	8	6	7
Shipping clerks	6		4	2						1			1		1	3
Stenographers (F.)	8		8							2		2	2	1		1
Stock clerks	13		5	8						2	2		6	2		1
Stock clerks (F.)	16		16							14	2					
Totals	2474	8	2360	106				3	168	578	644	467	190	139	141	144
Coffee, Spices, etc.	3	establishments.														
Manufacturing:																
Coffee roasters	3			3											1	2

Engineers	1			1												1
Managers and foremen	8		7		1									3	3	2
Packers and labelers (F.)	81		81						9	62	9	1				
Porters and packers	55		26	21	7		1			2	6	21	14	7	5	
Printers	1				1									1		
Teamsters	1				1								1			
Clerical:																
Bookkeepers	5		5								1					4
Bookkeepers (F.)	26		26								17	4	4			1
Cashiers (F.)	1		1											1		
Errand boys	7		7						2	5						
Office clerks	19		18		1						1	3	1	2		12
Office clerks (F.)	55	6	49								45	2	4	2	2	
Salesmen	101		99		2											101
Shipping clerks	1		1													1
Stenographers (F.)	16	5	11									7	4	1	2	2
Stock clerks	1			1											1	
Totals	382	11	331	26	13		1		11	69	79	38	28	17	14	126
Coffins.	2	est	ablis	hmen	ts.											
Manufacturing:																
Cabinetmakers	2			2										1	1	
Casket trimmers	17			17							2		5	1	8	1
Engineers	1			1											1	
Garment makers (F.)	12		12							3	6	1	1	1		
Porters and packers	4			4								1	3			
Sheet metal workers	4		4												3	1
Sheet metal workers, apprentices	1		1									1				
Teamsters	2			1	1							1		1		
Clerical:																
Bookkeepers	1			1												1
Cashiers	1			1												1
Office clerks (F.)	1		1											1		
Salesmen	7			7							3					4
Shipping clerks	1			1												1
Stenographers (F.)	1		1											1		
Totals	55		19	35	1					3	11	4	9	6	13	9

TABLE No. 1. CITY OF SAN FRANCISCO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Confectionery.	28	establishments.														
Manufacturing:																
Bakers	71			71							15	9	14	13	15	5
Bakers, apprentices	2			2							1	1				
Bakers, helpers	6			6							5	1				
Candy makers	111		9	58	44					13	6	26	12	23	12	19
Candy makers, helpers	73		2	41	30				2	14	39	14	2	2		
Candy makers, helpers (F.)	58		58						20	38						
Chocolate dippers	23			23								16	7			
Chocolate dippers (F.)	136		136						2	51	68	13	2			
Cooks	10			3	7						1	2	2	2	1	2
Cooks (F.)	1		1											1		
Cracker makers	42			42									8	16	18	
Cracker makers, apprentices	16			16							8	8				
Engineers and firemen	4			3	1									1	1	2
Managers and foremen	36		5	26	2		3							2	5	29
Managers and forewomen	7		7							1	1	1	3	1		
Mechanics	16			10	6								1	5	6	4
Packers and labelers (F.)	451		451						51	294	82	18	3			
Porters and packers	68		2	46	20					1	25	21	18	3		
Soda dispensers	6			4	2								3	1		2
Teamsters	17		1	14	2					1	4	2	5	5		
Waitresses	55	30	25							53	2					
Watchmen	10			9	1				1		2	3	2	1	1	
General help	90		2	10	78					1	14	40	32	3		
General help (F.)	129		129						21	76	24	6	1	1		
Clerical:																
Bookkeepers	16		13	3						1		2	1	2	2	8
Bookkeepers (F.)	10	1	9								2	2		3	3	
Cashiers	3		2	1												3
Cashiers (F.)	8		8							1	5		2			
Errand boys	20		4	16					1	16	3					
Office clerks	8		6		2						2	2		1	2	1
Office clerks (F.)	10		10							1	2	4		3		

Salesmen	49		39	8	2					3		7	1	4	3	31
Saleswomen	90		90							43	29	7	2	4	3	2
Shipping clerks	22		3	15	4					1	2	2	6	5	1	5
Stenographers	1		1									1				
Stenographers (F.)	14		14								1	6	3	4		
Stock clerks	16			14	2						5	5	3	3		
Stock clerks (F.)	7		7							7						
Totals	1712	31	1034	441	203		3		101	616	348	219	133	109	73	113
Construction Work, General Contracting, etc.	16	establishments.														
Manufacturing:																
Blacksmiths	2		2													2
Carpenters	12		12													12
Cement workers	28		28												28	
Drapery hangers (F.)	1		1									1				
Draughtsmen	4		4													4
Electricians	29		29													29
Electricians, helpers	19		19							3	1	3	5	7		
Engineers, mechanical	2		2													2
Fixture hangers	1		1												1	
House movers	8		8													8
House movers, apprentices	2		2									2				
Locksmiths	1		1										1			
Machinists	6		6											2	4	
Machinists, apprentices	1		1									1				
Managers and foremen	17		12	5												17
Painters	48		48											2	46	
Painters, apprentices	3		3								1	2				
Paper hangers	16		16													16
Pile drivers	42		42													42
Plumbers and steam fitters	62		62											16	1	45
Plumbers, helpers	23		23							1	1	5	8	8		
Porters and packers	2		1	1							1		1			
Sheet metal workers	12		12										1	1		10
Stablemen	4				4								3	1		
Stone masons	37		31	6											8	29
Stone masons, apprentices	3		3							1		1	1			
Storekeepers	2		2								1				1	
Teamsters	78		4	7	67					1	1		11	23	42	
Tile setters	5		5												1	4
Tile setters, helpers	6		6										6			
General help	175		88	24	63							37	32	106		

TABLE No. 1. CITY OF SAN FRANCISCO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical:																
Bookkeepers	12	2	9	1										1		11
Bookkeepers (F.)	5		5									2		1	1	1
Cashiers (F.)	1		1										1			
Collectors	1			1											1	
Errand boys	1		1						1							
Office clerks	3		2	1							1				2	
Office clerks (F.)	2		2								1				1	
Salesmen	6		3	3							1				3	2
Saleswomen	1		1									1				
Shipping clerks	1			1												1
Stenographers	1		1								1					
Stenographers (F.)	4		4										3	1		
Stock clerks	6		3	3					1	2				1	2	
Telephone girls	2		2								1	1				
Totals	697	2	508	53	134				2	8	11	56	73	170	142	235
Cooperage.	9	establishments.														
Manufacturing:																
Basket-makers (F.)	58	4	51					2	5	37	14					
Coopers	89			89										5	81	3
Coopers, apprentices	13			13							3	3	1	6		
Coopers, helpers	88			88						3	16	33	24	12		
Engineers	4			4											1	3
Firemen	2			2									1	1		
Lumber hands	8			8									8			
Machine hands	30			30								2	7	3	16	2
Managers and foremen	5		1	4												5
Mechanics	5			5												5
Mill hands	3		2	1											1	2
Teamsters	8			8								1	1	5		1
Watchmen	1			1						1						
General help	16			16						3		3	10			

Clerical:																
Bookkeepers	2		1	1												2
Bookkeepers (F.)	4	2	2								1	1	1		1	
Errand boys	1			1						1						
Office clerks	6			6											1	5
Office clerks (F.)	3		3										2			1
Salesmen	2			2												2
Stenographers (F.)	2		2							1						1
Totals	350	6	65	279				2	5	46	34	43	55	32	101	32
Copper and Brass Goods.	8	establishments.														
Manufacturing:																
Assemblers	7			7							3	1	3			
Brass finishers	23		23								1	1	1	4	13	3
Brass polishers	2			2									1		1	
Coppersmiths	22		22												7	15
Coppersmiths, apprentices	4		4						2	1				1		
Coppersmiths, helpers	12		12									7	5			
Foundry helpers	2		2										1	1		
Machinists	3		3												3	
Machinists, helpers	2		2						1	1						
Managers and foremen	10		8	2												10
Molders	6		6												4	2
Molders, apprentices	1		1								1					
Molders, helpers	3		3									2	1			
Platers	1			1											1	
Vulcanizers (F.)	1		1									1				
Wrappers (F.)	1		1								1					
Clerical:																
Bookkeepers	3		3										1			2
Bookkeepers (F.)	3		3							1				1		1
Salesmen	5		5											1		4
Totals	111		99	12					3	3	6	12	13	8	29	37
Dairy Products, Butter, etc.	2	establishments.														
Manufacturing:																
Butter-makers	8			8										5	2	1
Butter-wrappers (F.)	9		9								9					
Can washers	1			1										1		
Creamerymen	1			1												1

TABLE No. 1. CITY OF SAN FRANCISCO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Drivers	3			3											3	
Managers and foremen	9			9												9
Porters and packers	35			35								3	27	5		
Stablemen	1			1										1		
Clerical:																
Bookkeepers	4		1	3									1	1	1	1
Cashiers	1			1												1
Errand boys	1		1						1							
Office clerks	7			7								7				
Salesmen	5			5											1	4
Shipping clerks	1			1								1				
Stenographers (F.)	5		5									2		2	1	
Stock clerks	1			1									1			
Telephone girls	1		1									1				
Totals	93		17	76					1		9	14	29	15	8	17
Drugs and Chemicals.	13	establishments.														
Manufacturing:																
Chemists	11	1	10											2		9
Chemists (F.)	1		1													1
Engineers and firemen	4		2		2								1	1	1	1
Laboratory help	13		13						1	4		2	4	2		
Laboratory help (F.)	2		2							1		1				
Licorice boilers	1			1												1
Managers and foremen	15		9	2	4									1	2	12
Packers and labelers (F.)	65		65						5	44	10	6				
Porters and packers	3		1	2								1		2		
Printers	1		1													1
Printers (F.)	2		2								1				1	
Teamsters	1			1										1		
General help	67		2		65						24	24	11	7	1	

Clerical:																
Bookkeepers	1		1											1		
Bookkeepers (F.)	6	1	5									1	2		2	1
Cashiers (F.)	3		3									2		1		
Errand boys	3		2	1						3						
Office clerks (F.)	5		5							3	1			1		
Salesmen	14		14										2	3		9
Saleswomen (F.)	3		3								1			2		
Shipping clerks	3		2	1								2				1
Stenographers (F.)	14	1	13								5	5		3	1	
Stock clerks	1			1										1		
Totals	239	3	156	9	71				6	55	42	44	20	28	8	36
Dyeing and Cleaning.	6	establishments.														
Manufacturing:																
Cleaners	57			57								11	16	17	7	6
Cleaners (F.)	7		7							2	1	3			1	
Curtain-workers (F.)	3		3									3				
Drivers	48		2	46								6	2	9	12	19
Dyers	6			6									2			4
Engineers and firemen	5			5										2		3
Glove cleaners (F.)	28		28							19	6	3				
Ironers	16			16									7	7	2	
Ironers (F.)	85		85							16	43	23	3			
Managers and foremen	2			2												2
Managers and forewomen (F.)	2		2										1	1		
Markers and distributers (F.)	22	1	21						1	10	7	4				
Porters and packers	2			2								2				
Pressers	17			17									1	15	1	
Pressers (F.)	91		91							5	58	21	6		1	
Seamstresses	14		14							5	6	3				
Tailors	2			2										2		
Washroom hands	33			33							3	2	18	7	3	
Clerical:																
Bookkeepers (F.)	7	2	5									2		2	1	2
Collectors	1	1									1					
Errand boys	2		1	1						2						
Office clerks (F.)	38		38							1	14	12	8	2	1	
Stenographers (F.)	2		2											2		
Totals	490	4	299	187					1	60	139	95	64	66	29	36

TABLE No. 1. CITY OF SAN FRANCISCO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Electrical Goods and Supplies.	20	establishments.														
Manufacturing:																
Armature winders	10		10											1	8	1
Armature winders, helpers	11		11						7	1	3					
Engravers	5			5										2	3	
Electricians	43		43												14	29
Electricians, apprentices	15		15						1	8	6					
Electricians, helpers	30		30							1			19	10		
Locksmiths	2		2												2	
Machinists	14		12	2								2	1	3	8	
Machinists, apprentices	6		6							1	5					
Managers and foremen	23		20	3											1	22
Mechanics	14		5	9							1	2	5	2	1	3
Porters and packers	18		1	13		4					1	7	10			
Printers	6			6							2		2	1	1	
Sheet-metal workers	6		6													6
Signmakers	7		2	5									3	4		
Sign painters	4		4										1	1	1	1
Sign painters, apprentices	1		1							1						
Structural ironworkers	21		21													21
Teamsters	4		2	2						1		2	1			
Telephone repair men	161			161						47	59	20	18	5	8	4
General help	71		17	54						27	17	12	7	4	3	1
General help (F.)	18		18							17	1					
Clerical:																
Bookkeepers	14		9	5								3	4	1	4	2
Bookkeepers (F.)	2		2										1			1
Cashiers	1		1													1
Cashiers (F.)	1		1												1	
Errand boys	24		22	2					3	13	8					
Office clerks	42		32	10								10	10	9	8	5
Office clerks (F.)	23		23							4	5	4	8	2		
Salesmen	29		29								2	1		4	5	17
Shipping clerks	6		1	5								2	1	2	1	

Stenographers	1		1									1				
Stenographers (F.)	25	1	24								2	5	11	3	3	1
Stock clerks	34		7	27						5	1	6	10	8	3	1
Totals	692	1	378	309		4			11	126	113	77	112	62	75	116
Elevators.	2	establishments.														
Manufacturing:																
Blacksmiths	2		2											1		1
Carpenters	9		9												5	4
Chauffeurs	2		2												1	1
Draughtsmen	7		7								1				1	5
Electricians	2		2													2
Elevator constructors	67		67										1	28	3	35
Machine hands	4		4										2	2		
Machinists	11		11											2	7	2
Machinists, apprentices	3		3								1	2				
Machinists, helpers	6		6										5	1		
Managers and foremen	11		11													11
Painters	1		1											1		
Pattern-makers	1		1													1
Porters and packers	2		2										1	1		
Storekeepers	5		5										2	3		
General help	7		7										5	2		
General help (F.)	1		1							1						
Clerical:																
Bookkeepers	10		10								2		3	1		4
Errand boys	3		3							3						
Office clerks	14		14								4	1		4	1	4
Office clerks (F.)	1		1										1			
Salesmen	5		5													5
Stenographers (F.)	9		9								1		4	2	1	1
Totals	183		183							4	9	3	24	48	19	76
Envelopes.	2	establishments.														
Manufacturing:																
Folding girls	21	1	20						4	12	5					
Machinists	1			1										1		
Managers and foremen	3		1	2												3
Managers and forewomen	1		1										1			
Mechanics	3			3								1	1	1		
Operators (F.)	21		21						6	10	5					
Paper cutters	3			3									1	1	1	

TABLE No. 1. CITY OF SAN FRANCISCO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Porters and packers	3			3							3					
Printers	3		2	1								1	1		1	
Clerical:																
Bookkeepers (F.)	2		2										1	1		
Errand boys	1			1						1						
Office clerks (F.)	1		1								1					
Stenographers (F.)	1		1									1				
Totals	64	1	49	14					10	23	14	3	5	4	2	3
Extracts, Perfumes, etc.	3	establishments.														
Manufacturing:																
Chemists	1		1													1
Factory help (F.)	12		12						6	5	1					
Managers and foremen	2			2												2
Porters	5		3	2						1	2		1	1		
Clerical:																
Bookkeepers (F.)	5		5							2	2	1				
Errand boys	2			2					2							
Office clerks	3			3							1		1	1		
Office clerks (F.)	14		14						9	4	1					
Salesmen	5		5													5
Shipping clerks	1			1										1		
Stenographers (F.)	3		3								2	1				
Totals	53		43	10					17	12	9	2	2	3		8
Fertilizers.	2	establishments.														
Manufacturing:																
Managers and foremen	2		1	1												2
Teamsters	1				1									1		
General help	40			40						1	17	16	4	2		

Clerical:																
Bookkeepers	1		1													1
Stenographers (F.)	2		2								1			1		
Totals	46		4	41	1					1	18	16	4	4		3
Fixtures, Gas and Electric.	14	establishments.														
Manufacturing:																
Assemblers	4			4										2		2
Assemblers, helpers	7			7					2	3		2				
Brass finishers	13			13								1	3	2	4	3
Brass finishers, helpers	5			5						4	1					
Brass polishers	33		2	31								10	6	2	13	2
Brass polishers, apprentices	1			1							1					
Brass polishers, helpers	3			3							1		1	1		
Fixture hangers	35		23	12											24	11
Fixture hangers, apprentices	4		4							2	1			1		
Fixture hangers, helpers	10		10								3	7				
Fixture makers	80			80						1	4	31	14	13	8	9
Fixture makers, apprentices	8			8						1	1	1	3	2		
Lacquerers (F.)	9		9							3	4	1	1			
Managers and foremen	10		4	6											1	9
Mechanics	5		5									1			1	3
Platers	13			13								5	1		6	1
Platers, helpers	2			2							1	1				
Plumbers and gas fitters	20		19	1											10	10
Plumbers, helpers	14		14							2	1	5	6			
Porters and packers	12		2	8			2			2	2	1	5	2		
Sheet metal workers	24		11	13						2	2	3	2	3	12	
Spinners	4			4								1			3	
Teamsters	2		1	1										1		1
General help	24		2	22							3	8	4		5	4
Clerical:																
Bookkeepers	1			1												1
Bookkeepers (F.)	8	1	7									1	3	3		1
Cashiers	3		2	1												3
Collectors	8		6	2										1	6	1
Errand boys	17		3	14					2	3	2	10				
Office clerks	6			6								1	1	2	2	
Office clerks (F.)	11		11								6	2	2		1	
Salesmen	35		15	20							4		2	3	2	24
Saleswomen	1		1													1
Shipping clerks	2			2											2	

TABLE No. 1. CITY OF SAN FRANCISCO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical—Continued.																
Stenographers	1	------	1	------	------	------	------	------	------	------	1	------	------	------	------	------
Stenographers (F.)	4	------	4	------	------	------	------	------	------	------	3	------	1	------	------	------
Stock clerks	13	------	1	12	------	------	------	------	------	6	2	2	2	1	------	------
Stock clerks (F.)	1	------	1	------	------	------	------	------	------	------	------	------	------	1	------	------
Totals	453	1	158	292	------	------	2	------	4	29	43	94	57	40	100	86
Flouring Mill Products.	11	establishments.														
Manufacturing:																
Engineers	5	------	------	3	2	------	------	------	------	------	------	------	------	------	------	5
Managers and foremen	24	------	3	14	7	------	------	------	------	------	------	------	------	2	1	21
Millers	16	------	5	7	4	------	------	------	------	------	------	------	------	6	4	6
Packers (F.)	41	------	41	------	------	------	------	------	------	29	11	1	------	------	------	------
Porters and packers	29	------	------	16	3	7	3	------	------	3	------	8	10	8	------	------
Stablemen	14	------	8	------	6	------	------	------	------	------	------	------	------	14	------	------
Teamsters	54	------	13	6	35	------	------	------	------	------	------	2	3	10	37	2
Warehousemen	27	------	2	5	20	------	------	------	------	------	------	------	22	2	3	------
General help	111	------	29	7	72	3	------	------	------	------	------	------	47	60	4	------
Clerical:																
Bookkeepers	17	------	9	------	8	------	------	------	------	------	------	------	8	6	2	1
Bookkeepers (F.)	5	------	5	------	------	------	------	------	------	------	1	------	3	1	------	------
Cashiers	3	------	3	------	------	------	------	------	------	------	------	------	------	------	------	3
Collectors	2	------	1	1	------	------	------	------	------	------	------	------	------	------	------	2
Office clerks	16	------	14	1	1	------	------	------	------	1	------	2	2	2	3	6
Office clerks (F.)	2	------	2	------	------	------	------	------	------	1	1	------	------	------	------	------
Salesmen	23	------	13	9	1	------	------	------	------	------	------	------	------	1	10	12
Shipping clerks	5	------	2	1	2	------	------	------	------	------	------	------	------	2	------	3
Stenographers (F.)	9	------	9	------	------	------	------	------	------	------	2	2	5	------	------	------
Totals	403	------	159	70	161	10	3	------	------	34	15	15	100	114	64	61

Foundries.	19	establishments.														
Manufacturing:																
Brass finishers	14		14										2	3	9	
Brass finishers, apprentices	2		2							2						
Casting chippers	29		27	2								1	8	19	1	
Core makers	55		55							2					47	6
Cupolamen	14		11	3									2	8	4	
Flask makers	5		4	1									1	1	3	
Foundry helpers	76		17	59								33	32	8	3	
Machine hands	4		4										2		2	
Machinists	27		27										2		20	5
Machinists, apprentices	5		5						2	2				1		
Machinists, helpers	7		7							4	1	1	1			
Managers and foremen	21		16	5												21
Molders	183		183											1	148	34
Molders, apprentices	40		40						4	11	16	4	3	2		
Molders, helpers	43		43									26	16	1		
Pattern makers	12		12												3	9
Pattern makers, apprentices	5		5						2	1		2				
Platers and polishers	3		3												2	1
Porters and packers	1			1									1			
Printers	5		5									1		1	1	2
Range makers	8		4	4										2	4	2
Range makers, apprentices	3		3						2		1					
Teamsters	2		1	1										2		
Type founders	4			4										1	3	
Type founders (F.)	2		2								2					
Watchmen	2		2					1				1				
Clerical:																
Bookkeepers	8		7	1										2	1	5
Bookkeepers (F.)	2		2										1			1
Cashiers	2		1	1												2
Errand boys	2			2						2						
Office clerks	4		2	2						1				1	1	1
Office clerks (F.)	2		2								2					
Salesmen	8		8											1		7
Shipping clerks	6		5	1							1		1	2	2	
Stenographers (F.)	10	3	7								5	1	1	2		1
Totals	616	3	526	87				1	10	25	28	70	73	58	254	97

TABLE No. 1. CITY OF SAN FRANCISCO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Furniture.	13 establishments.															
Manufacturing:																
Bed makers, brass	46			46							2	3	14	10	12	5
Bed makers, iron	88			88							2	8	38	20	16	4
Cabinet makers	47		40	7									2	3	27	15
Cabinet makers, apprentices	5		2	3					1	2	1			1		
Carpenters	6		6													6
Carpenters, helpers	1		1								1					
Drapery girls	2		2									1		1		
Draughtsmen	2		2											1	1	
Lumber hands	2			2								2				
Managers and foremen	7		4	3												7
Mill hands	6		4	2						1			1	1	2	1
Planers	1			1										1		
Porters and packers	10			9	1							5	2	2	1	
Rattan workers	5				5							1	3	1		
Sanders	1			1									1			
Sawyers	5			5										5		
Seamstresses	1		1									1				
Stickers	1			1										1		
Teamsters	2			2										2		
Upholsterers	6		4	2										1	3	2
Varnishers and finishers	44		15	29					2	7		17	6	4	5	3
Wood carvers	6		6													6
Wood turners	4		2	2									1		3	
General help	26			26								21	2	3		
Clerical:																
Bookkeepers	3		1	2										2		1
Bookkeepers (F.)	3	1	2						1		1	1				
Cashiers	2			2												2
Office clerks	4			4											4	
Office clerks (F.)	5		5										3	1		1
Salesmen	7		6	1										1	2	4
Saleswomen	1		1								1					

Shipping clerks	2			2											1	1
Stenographers (F.)	4		4								4					
Stock clerks	3		1	2								1		2		
Totals	358	1	109	242	6				4	10	12	61	73	63	77	58
Garages and Repair Shops.	21	establishments.														
Manufacturing:																
Blacksmiths	2		2													2
Blacksmiths, helpers	1		1											1		
Chauffeurs	131			6			125							5	35	91
Machinists	94		69	25							1	2	4	5	75	7
Machinists, apprentices	22		16	6					4	9	8		1			
Machinists, helpers	2		2										1	1		
Managers and foremen	32		4	25			3						2	2	5	23
Mechanics	32		10	22						1	1	4	8	1	15	2
Painters	24		24								1	2	5	9	7	
Polishers, washers, etc.	43		6	37									13	15	13	2
Porters and packers	2			1			1					1	1			
Tire repair men	9			9							3		3	1	1	1
Trimmers	6		6							1	1			2	1	1
Trimmers (F.)	1		1									1				
General help	23			14	8		1		1	1		1	3	6	9	2
Clerical:																
Bookkeepers	7	2	5										1	1	1	4
Bookkeepers (F.)	7	3	4									1	3	1	1	1
Cashiers	2		2													2
Office clerks	1		1							1						
Office clerks (F.)	1	1									1					
Salesmen	10		1	9										1		9
Shipping clerks	1			1											1	
Stenographers (F.)	7	1	6							1	1	1		3		1
Stock clerks	3		1	2					1						1	1
Telephone girls	2	2										2				
Totals	465	9	161	157	8		130		6	14	17	15	45	54	165	149
Glass and Glassware.	13	establishments.														
Manufacturing:																
Art glass workers	57		57										3		26	28
Art glass workers, apprentices	19		19							6	3	3	4	3		
Blowers	236			236												236
Blowers, helpers	333			333							217	115		1		
Caners	6		6								2	4				

TABLE No. 1. CITY OF SAN FRANCISCO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Caners (F.)	31		31								8	23				
Designers and artists	7	1	6												2	5
Managers and foremen	12		4	8										3		9
Mechanics	33		6	27						2	1	2		2	2	24
Packers (F.)	21		21							11	2	7		1		
Porters and packers	69			69							17	47	3	2		
Teamsters	2		2									1	1			
General help	242			242							11	188	16	14	2	11
Clerical:																
Bookkeepers	7		7											2	2	3
Bookkeepers (F.)	2		2											1		1
Errand boys	2		2							1	1					
Office clerks	14		12	2								1	3	1	2	7
Office clerks (F.)	5		5									2	2	1		
Salesmen	6		6												1	5
Shipping clerks	3		3											1	2	
Stenographers (F.)	7		7									2	5			
Totals	1114	1	196	917						20	262	395	37	32	39	329
Gloves.	5	establishments.														
Manufacturing:																
Cutters	19		11	8							3	4	10	2		
Cutters, apprentices	6			6							1	4	1			
Glove makers	4		3	1										3		1
Glove makers (F.)	46		46						3	9	23	11				
Glove makers, apprentices (F.)	1		1						1							
Managers and foremen	4		2	2										1		3
Operators (F.)	38		38						2	3	22	11				
General help (F.)	3		3							3						
Clerical:																
Bookkeepers (F.)	3		3							1	1	1				

Salesmen	1		1												1
Shipping clerks	2			2									1	1	
Stenographers (F.)	1		1								1				
Stock clerks	1			1								1			
Totals	129		109	20				6	16	50	32	12	7	1	5
Harness and Saddlery.	3	establishments.													
Manufacturing:															
Harness and saddle makers	65		20	45					5	1	6	12	19	17	5
Managers and foremen	4		1	3											4
Operators	2			2										2	
Porters and packers	3		1	2					1				2		
Clerical:															
Bookkeepers	2		2												2
Bookkeepers (F.)	1		1										1		
Errand boys	1		1							1					
Office clerks	7		7								1	3		1	2
Office clerks (F.)	3		3							1	1		1		
Salesmen	14		10	4								1	2	1	10
Shipping clerks	1		1										1		
Stenographers (F.)	2		2								1		1		
Stock clerks	1		1									1			
Totals	106		50	56					6	3	9	17	27	21	23
Hats, Caps, and Furnishings.	16	establishments.													
Manufacturing:															
Hat makers	79		41	38					2	5	8	17	14	17	16
Hat makers (F.)	141		141						12	24	32	22	49	2	
Managers and foremen	11			11									1	2	8
Managers and forewomen	5		5								2		3		
Necktie makers	3		1	2									1	1	1
Necktie makers (F.)	75		75					4	6	55	10				
Porters and packers	7		3	4					2		3	2			
General help	12		2	10				2		3			3	3	1
Clerical:															
Bookkeepers	5		1	4								1	1	1	2
Bookkeepers (F.)	5		5							1	1	3			
Errand boys	3		2	1					2	1					
Salesmen	27		24		3							2		6	19
Saleswomen	2		2									1			1
Shipping clerks	3			3						1				2	

TABLE No. 1. CITY OF SAN FRANCISCO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical—Continued.																
Stenographers (F.)	3	------	3	------	------	------	------	------	------	------	2	1	------	------	------	------
Stock clerks	4	------	2	2	------	------	------	------	------	1	------	------	1	1	------	1
Stock clerks (F.)	1	------	1	------	------	------	------	------	------	------	1	------	------	------	------	------
Totals	386	------	308	75	3	------	------	------	6	25	93	57	49	73	34	49
Ice.	3	establishments.														
Manufacturing:																
Drivers	62	------	------	------	44	18	------	------	------	------	------	------	------	13	47	2
Engineers	17	------	17	------	------	------	------	------	------	------	------	------	------	------	------	17
Firemen	7	------	7	------	------	------	------	------	------	------	------	------	------	7	------	------
Ice pullers	13	------	13	------	------	------	------	------	------	------	------	------	------	13	------	------
Managers and foremen	7	------	------	5	------	------	2	------	------	------	------	------	------	------	1	6
Mechanics	10	------	6	------	4	------	------	------	------	------	------	------	2	2	4	2
Porters and packers	14	------	------	6	2	------	6	------	------	------	------	2	6	6	------	------
Stablemen	8	------	------	5	------	------	3	------	------	------	------	------	1	6	1	------
General help	22	------	1	21	------	------	------	------	------	------	------	------	17	4	------	1
Clerical:																
Bookkeepers	1	------	1	------	------	------	------	------	------	------	------	------	------	------	------	1
Collectors	1	------	1	------	------	------	------	------	------	------	------	------	------	------	------	1
Office clerks	7	------	------	7	------	------	------	------	------	------	------	------	2	1	4	------
Office clerks (F.)	2	1	1	------	------	------	------	------	------	------	------	------	2	------	------	------
Stenographers (F.)	1	------	1	------	------	------	------	------	------	------	------	------	------	1	------	------
Totals	172	1	48	44	50	18	11	------	------	------	------	2	30	53	57	30
Inks.	3	establishments.														
Manufacturing:																
Ink makers	5	------	1	4	------	------	------	------	------	------	------	------	------	------	3	2
Ink makers, helpers	2	------	------	2	------	------	------	------	------	------	------	------	2	------	------	------
Managers and foremen	1	------	1	------	------	------	------	------	------	------	------	------	------	------	------	1
Roll makers	6	------	1	5	------	------	------	------	------	------	------	------	3	------	1	2
Teamsters	1	------	------	1	------	------	------	------	------	------	------	1	------	------	------	------

Clerical:																
Bookkeepers	2	------	2	------	------	------	------	------	------	------	------	------	2	------	------	------
Bookkeepers (F.)	2	------	2	------	------	------	------	------	------	------	------	------	------	1	------	1
Cashiers	1	------	1	------	------	------	------	------	------	------	------	------	------	------	------	1
Errand boys	2	------	1	1	------	------	------	------	1	1	------	------	------	------	------	------
Office clerks (F.)	1	------	1	------	------	------	------	------	------	------	------	1	------	------	------	------
Salesmen	5	------	5	------	------	------	------	------	------	------	------	------	------	------	------	5
Shipping clerks	4	------	------	4	------	------	------	------	------	------	------	1	1	1	1	------
Stenographers (F.)	3	------	3	------	------	------	------	------	------	------	1	1	------	------	1	------
Totals	35	------	18	17	------	------	------	------	1	1	1	4	8	2	6	12
Iron, Structural and Architectural.	20	est	ablis	hmen	ts.											
Manufacturing.																
Blacksmiths	13	------	4	9	------	------	------	------	------	------	------	------	------	------	9	4
Blacksmiths, helpers	8	------	3	5	------	------	------	------	------	------	------	------	3	5	------	------
Casting chippers	4	------	2	2	------	------	------	------	------	------	------	1	------	3	------	------
Core makers	2	------	------	2	------	------	------	------	------	------	------	------	------	2	------	------
Draughtsmen	19	------	18	1	------	------	------	------	------	------	------	------	1	5	5	8
Engineers, stationary	6	------	------	6	------	------	------	------	------	------	------	------	2	2	2	------
Engineers, structural	2	------	1	1	------	------	------	------	------	------	------	------	------	------	------	2
Flask makers	2	------	------	2	------	------	------	------	------	------	------	------	1	1	------	------
Foundry helpers	3	------	------	3	------	------	------	------	------	------	------	2	1	------	------	------
Machine hands	11	------	------	11	------	------	------	------	------	------	------	------	1	3	7	------
Machinists	8	------	6	2	------	------	------	------	------	------	------	------	------	------	6	2
Machinists, apprentices	1	------	------	1	------	------	------	------	------	------	1	------	------	------	------	------
Machinists, helpers	4	------	------	4	------	------	------	------	------	1	------	2	1	------	------	------
Managers and foremen	28	------	6	22	------	------	------	------	------	------	------	------	------	1	------	27
Molders	20	------	20	------	------	------	------	------	------	------	------	------	------	------	20	------
Molders, apprentices	14	------	14	------	------	------	------	------	------	------	1	13	------	------	------	------
Painters	4	------	4	------	------	------	------	------	------	------	------	------	------	------	------	4
Pattern makers	11	------	11	------	------	------	------	------	------	------	------	------	------	------	------	11
Pattern makers, apprentices	4	------	4	------	------	------	------	------	------	------	1	2	1	------	------	------
Platers and polishers	4	------	------	4	------	------	------	------	------	------	------	------	------	------	4	------
Ship riggers	8	------	8	------	------	------	------	------	------	------	------	------	------	------	------	8
Structural iron workers	195	------	25	170	------	------	------	------	------	------	------	------	------	21	83	91
Structural iron workers, apprentices	31	------	3	28	------	------	------	------	------	3	8	9	9	2	------	------
Structural iron workers, helpers	77	------	------	77	------	------	------	------	------	------	------	4	52	21	------	------
Teamsters	11	------	------	3	------	8	------	------	------	------	1	------	------	3	7	------
Watchmen	3	------	------	1	------	------	2	------	------	------	------	1	2	------	------	------
General help	62	------	------	62	------	------	------	------	------	------	------	26	30	1	3	2
Clerical:																
Bookkeepers	9	------	4	5	------	------	------	------	------	------	------	1	------	------	1	7
Bookkeepers (F.)	2	------	2	------	------	------	------	------	------	------	------	1	------	------	1	------

TABLE No. 1. CITY OF SAN FRANCISCO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Errand boys	6		5	1					1	5						
Salesmen	5		5													5
Stenographers (F.)	7		7								1	2	4			
Totals	584		152	422		8	2		1	9	13	64	108	70	148	171
Jewelry, Watches and Silversmiths.	8	establishments.														
Manufacturing.																
Case makers	10		10							3	1	2		1	2	1
Case makers (F.)	16		16							8		7	1			
Clock and watch makers	15			15							1		1		4	9
Diamond setters	4		4													4
Jewelers and silversmiths	169		149	20					1	12	11	24	14	30	39	38
Jewelers, apprentices	16		12	4					1	8	7					
Jewelers, helpers	4			4						3	1					
Jewelry engravers	42		41	1					1	2	1	3	2	5	9	19
Jewelry polishers and platers	55		49	6					1	5	5	10	4	5	16	9
Leather workers	5		5											2	3	
Managers and foremen	1		1													1
Painters (F.)	6		6							4		2				
Packers and labelers (F.)	14		14							9	1	4				
Porters and packers	8		4		4					3			1	4		
Printers	10		10							2	1	1		2	3	1
Tool makers	11		11							3	2	2		1	2	1
Clerical:																
Bookkeepers (F.)	2	1	1								1				1	
Errand boys	7		6	1					1	5	1					
Salesmen	1		1													1
Totals	396	1	340	51	4				5	67	33	55	23	50	79	81

***Laundries, hand.**	18	establishments.														
Manufacturing:																
Cooks (F.)	4	------	4	------	------	------	------	------	------	1	3	------	------	------	------	------
Drivers	4	------	------	1	3	------	------	------	------	------	1	2	1	------	------	------
Ironers, hand	66	------	------	3	63	------	------	------	4	14	35	13	------	------	------	------
Ironers, hand (F.)	80	------	80	------	------	------	------	------	2	24	47	7	------	------	------	------
Managers and foremen	2	------	------	------	2	------	------	------	------	------	------	------	------	------	------	2
Manglers	5	------	------	------	5	------	------	------	------	5	------	------	------	------	------	------
Washroom hands	14	------	------	2	12	------	------	------	------	------	4	10	------	------	------	------
Clerical:																
Bookkeepers (F.)	4	------	4	------	------	------	------	------	------	1	2	1	------	------	------	------
Totals	179	------	88	6	85	------	------	------	6	45	92	33	1	------	------	2
Laundries, steam.	23	establishments.														
Manufacturing:																
Drivers	105	------	75	20	10	------	------	------	------	------	10	1	34	14	6	40
Engineers	25	------	15	8	------	2	------	------	------	------	------	------	2	1	6	16
Firemen	5	------	3	1	------	1	------	------	------	------	------	------	2	2	1	------
Ironers, hand	15	------	9	6	------	------	------	------	------	------	------	6	4	5	------	------
Ironers, hand (F.)	196	------	196	------	------	------	------	------	------	6	125	47	15	2	1	------
Ironers, machine	32	------	28	3	1	------	------	------	------	1	17	10	4	------	------	------
Ironers, machine (F.)	247	------	247	------	------	------	------	------	------	58	150	29	9	1	------	------
Managers and foremen	24	------	17	6	1	------	------	------	------	------	------	------	------	------	4	20
Managers and forewomen	2	------	2	------	------	------	------	------	------	------	------	------	1	------	1	------
Manglers	56	------	45	9	2	------	------	------	------	28	22	5	------	------	1	------
Manglers (F.)	338	------	338	------	------	------	------	------	------	275	56	4	3	------	------	------
Markers and distributors	219	------	124	95	------	------	------	------	------	------	10	14	16	144	19	16
Markers and distributors (F.)	19	------	19	------	------	------	------	------	------	2	3	4	------	9	1	------
Mechanics	6	------	6	------	------	------	------	------	------	------	------	------	1	2	1	2
Porters and packers	11	------	3	1	4	------	3	------	------	1	------	2	4	4	------	------
Seamstresses	8	------	8	------	------	------	------	------	------	------	7	1	------	------	------	------
Shakers	23	------	9	14	------	------	------	------	1	7	14	1	------	------	------	------
Shakers (F.)	25	------	25	------	------	------	------	------	------	25	------	------	------	------	------	------
Shirt folders (F.)	21	------	21	------	------	------	------	------	------	13	8	------	------	------	------	------
Shirt finishers	17	------	10	7	------	------	------	------	------	------	------	1	16	------	------	------
Shirt finishers (F.)	15	------	15	------	------	------	------	------	------	------	------	1	11	3	------	------
Starchers	29	------	15	13	1	------	------	------	------	3	7	8	3	5	2	1
Starchers (F.)	68	------	68	------	------	------	------	------	------	3	52	5	7	1	------	------
Stablemen	7	------	6	------	1	------	------	------	------	------	------	------	2	3	2	------
Washroom hands	116	------	72	44	------	------	------	------	------	2	4	8	25	61	11	5
General help	12	------	4	8	------	------	------	------	------	------	8	1	3	------	------	------

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*Also receive room and board.

TABLE No. 1. CITY OF SAN FRANCISCO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical:																
General help (F.)	9		9								9					
Bookkeepers	11		10	1										1	6	4
Bookkeepers (F.)	12	1	11							2	1	4	3			2
Collectors	3		3											1		2
Office clerks	6		6							1			1			4
Office clerks (F.)	25		25							5	12	8				
Stenographers (F.)	9	2	7							1	3	2	1	1		1
Totals	1716	3	1451	236	20	3	3		1	433	518	162	167	260	62	113
Leather, Leather Goods, etc.	18	establishments.														
Manufacturing:																
Engineers	4			4											2	2
Firemen	2			2									2			
Leather workers	49		13	36					2	3	6	5	10	10	8	5
Leather workers (F.)	6		6						2	3	1					
Managers and foremen	8		3	5										4		4
Mechanics	4			4									2	1	1	
Operators (F.)	3		3								2	1				
Porters and packers	5			2			3					2	3			
Tanners and curriers	332			332						2	8	115	168	34	1	4
Teamsters	9		1	8								3	5	1		
Wool pullers	46			46								17	27	1		1
General help	21			21						3	1	17				
Clerical:																
Bookkeepers	3		3													3
Bookkeepers (F.)	6	2	4							1	1	2		1	1	
Errand boys	1			1						1						
Office clerks	2		1	1											1	1
Salesmen	9		8	1											1	8
Shipping clerks	3		1	2									2	1		
Stenographers (F.)	4	1	3									3				1
Totals	517	3	46	465			3		4	13	19	165	219	53	15	29

Liquors, malt.	21	establishments.														
Manufacturing:																
Bottlers	140	-----	140	-----	-----	-----	-----	-----	-----	-----	1	4	-----	111	21	3
Brewers	70	-----	70	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	67	3
Brewers, apprentices	2	-----	2	-----	-----	-----	-----	-----	1	-----	-----	1	-----	-----	-----	-----
Brewmasters	11	-----	11	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	11
Cellarmen	30	-----	30	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	29	-----
Coopers	12	-----	12	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	10	2
Drivers, bottle	65	-----	37	5	8	15	-----	-----	-----	-----	-----	-----	1	-----	47	17
Drivers, keg	69	-----	21	16	17	15	-----	-----	-----	-----	-----	-----	-----	-----	31	38
Engineers	38	-----	32	3	3	-----	-----	-----	-----	-----	-----	-----	-----	1	9	28
Malsters	52	-----	52	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	35	17
Managers and foremen	20	-----	19	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	20
Mechanics	26	-----	26	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	5	16	5
Porters and packers	8	-----	5	-----	1	-----	2	-----	-----	-----	-----	2	1	3	2	-----
Stablemen	31	-----	17	1	3	9	1	-----	-----	-----	-----	-----	-----	1	24	6
General help	21	-----	20	1	-----	-----	-----	-----	-----	-----	-----	2	1	16	2	-----
Clerical:																
Bookkeepers	37	-----	34	3	-----	-----	-----	-----	-----	-----	-----	1	6	1	6	23
Office clerks	11	-----	11	-----	-----	-----	-----	-----	-----	-----	3	-----	3	2	-----	3
Salesmen	22	-----	20	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	22
Shipping clerks	2	-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	2	-----
Stenographers	1	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
Stenographers (F.)	8	1	7	-----	-----	-----	-----	-----	-----	2	1	-----	2	1	1	1
Totals	676	1	569	32	32	39	3	-----	1	2	5	10	14	142	302	200
Lithographing.	8	establishments.														
Manufacturing:																
Artists	24	-----	24	-----	-----	-----	-----	-----	1	-----	2	1	1	-----	1	18
Bindery girls (F.)	40	-----	40	-----	-----	-----	-----	-----	3	13	23	1	-----	-----	-----	-----
Bookbinders, apprentices	4	-----	4	-----	-----	-----	-----	-----	1	2	-----	1	-----	-----	-----	-----
Compositors	7	-----	7	-----	-----	-----	-----	-----	-----	-----	-----	-----	2	-----	4	1
Compositors (F.)	9	-----	9	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	7	2
Compositors, apprentices	3	-----	3	-----	-----	-----	-----	-----	-----	-----	2	-----	1	-----	-----	-----
Engravers	16	-----	16	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	2	13
Engravers (F.)	1	-----	1	-----	-----	-----	-----	-----	-----	1	-----	-----	-----	-----	-----	-----
Engravers, apprentices	5	-----	5	-----	-----	-----	-----	-----	-----	4	-----	1	-----	-----	-----	-----
Lithographers	39	-----	39	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	9	9	21
Lithographers, apprentices	28	-----	28	-----	-----	-----	-----	-----	1	17	3	5	1	1	-----	-----
Managers and foremen	36	-----	36	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	36
Mechanics	5	-----	5	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	2	2
Paper cutters	12	-----	12	-----	-----	-----	-----	-----	-----	-----	1	-----	1	2	7	1
Paper box makers	28	-----	28	-----	-----	-----	-----	-----	1	18	1	2	3	2	1	-----

TABLE No. 1. CITY OF SAN FRANCISCO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Paper box makers (F.)	12	------	12	------	------	------	------	------	4	8	------	------	------	------	------	------
Porters and packers	23	------	20	------	------	2	1	------	------	------	2	8	10	3	------	------
Press feeders	18	------	18	------	------	------	------	------	1	1	1	4	11	------	------	------
Press feeders (F.)	8	------	8	------	------	------	------	------	------	1	1	1	1	4	------	------
Pressmen	43	------	43	------	------	------	------	------	------	------	------	------	1	6	15	21
Pressmen, apprentices	22	------	22	------	------	------	------	------	1	5	1	10	4	1	------	------
Proofreaders (F.)	3	------	3	------	------	------	------	------	------	------	------	1	1	------	1	------
General help	75	------	75	------	------	------	------	------	1	39	21	5	4	4	1	------
General help (F.)	3	------	3	------	------	------	------	------	------	1	1	1	------	------	------	------
Clerical:																
Bookkeepers	7	------	7	------	------	------	------	------	------	------	------	------	------	2	------	5
Bookkeepers (F.)	3	------	3	------	------	------	------	------	------	------	1	------	2	------	------	------
Errand boys	6	------	6	------	------	------	------	------	------	4	2	------	------	------	------	------
Office clerks	10	------	10	------	------	------	------	------	------	1	------	4	------	3	1	1
Office clerks (F.)	2	------	2	------	------	------	------	------	------	------	------	------	2	------	------	------
Salesmen	23	------	23	------	------	------	------	------	------	------	------	1	------	3	5	14
Stenographers	3	------	3	------	------	------	------	------	------	------	------	2	------	------	------	1
Stenographers (F.)	9	------	9	------	------	------	------	------	------	1	3	1	4	------	------	------
Stock clerks	4	------	4	------	------	------	------	------	------	1	1	------	------	2	------	------
Totals	531	------	528	------	------	2	1	------	14	117	66	49	49	44	56	136
Lumber and Milling.	38	establishments.														
Manufacturing:																
Bench hands	127	------	127	------	------	------	------	------	------	------	------	------	2	6	8	111
Bench hands, apprentices	16	------	16	------	------	------	------	------	------	1	5	6	2	1	1	------
Cabinet makers	14	------	14	------	------	------	------	------	------	------	------	------	------	------	1	13
Cabinet makers, helpers	2	------	2	------	------	------	------	------	------	------	------	1	1	------	------	------
Draughtsmen	19	------	18	1	------	------	------	------	------	------	------	------	------	------	------	19
Engineers	14	------	8	5	1	------	------	------	------	------	------	------	------	------	3	11
Firemen	6	------	3	2	1	------	------	------	------	------	------	------	3	------	3	------
Floor layers, hardwood	33	------	33	------	------	------	------	------	------	------	------	------	------	------	------	33
Glaziers	2	------	2	------	------	------	------	------	------	------	------	------	------	------	------	2

Lumber hands	216	------	58	158	------	------	------	------	------	------	13	16	86	5	18	78
Managers and foremen	55	------	43	12	------	------	------	------	------	------	------	------	------	------	1	54
Mill hands	110	------	36	74	------	------	------	------	------	------	5	7	27	54	11	6
Millwrights	7	------	7	------	------	------	------	------	------	------	------	------	------	------	4	3
Planers	25	------	25	------	------	------	------	------	------	------	------	------	------	------	9	16
Sanders	29	------	29	------	------	------	------	------	------	------	2	11	1	------	11	4
Sash and door makers	44	------	44	------	------	------	------	------	------	1	1	1	1	5	23	12
Sawyers	46	------	46	------	------	------	------	------	------	------	------	------	2	5	9	30
Saw filers	2	------	2	------	------	------	------	------	------	------	------	------	------	------	------	2
Stair builders	16	------	16	------	------	------	------	------	------	------	------	------	------	------	------	16
Stair builders, apprentices	1	------	1	------	------	------	------	------	------	------	------	1	------	------	------	------
Stickers	64	------	58	6	------	------	------	------	------	------	------	5	4	1	2	52
Tallymen	45	------	1	44	------	------	------	------	------	------	------	1	9	3	31	1
Teamsters	38	------	2	21	------	------	15	------	------	------	------	1	4	15	15	3
Varnishers and finishers	2	------	2	------	------	------	------	------	------	------	------	------	------	------	------	2
Watchmen	9	------	2	------	------	------	7	------	------	------	------	1	8	------	------	------
Wood turners	15	------	15	------	------	------	------	------	------	------	------	------	------	------	------	15
General help	46	------	17	29	------	------	------	------	------	4	3	20	10	8	1	------
Clerical:																
Bookkeepers	32	------	27	5	------	------	------	------	------	------	------	------	2	5	3	22
Bookkeepers (F.)	5	------	5	------	------	------	------	------	------	------	------	1	1	------	1	2
Collectors	2	------	1	1	------	------	------	------	------	------	------	------	------	------	2	------
Office clerks	17	------	17	------	------	------	------	------	------	------	1	3	3	5	3	2
Office clerks (F.)	1	------	1	------	------	------	------	------	------	------	------	1	------	------	------	------
Salesmen	24	------	19	5	------	------	------	------	------	------	------	------	------	3	------	21
Shipping clerks	7	------	7	------	------	------	------	------	------	------	------	------	1	------	2	4
Stenographers (F.)	18	1	17	------	------	------	------	------	------	------	2	4	9	3	------	------
Totals	1109	1	721	363	2	------	22	------	------	6	32	80	176	119	162	534
Machinery and Machine Shop Products.	40	establishments.														
Manufacturing:																
Blacksmiths	29	------	29	------	------	------	------	------	------	------	------	------	------	------	23	6
Blacksmiths, apprentices	11	------	11	------	------	------	------	------	1	7	1	------	1	1	------	------
Blacksmiths, helpers	38	------	38	------	------	------	------	------	------	------	------	------	5	33	------	------
Boiler makers	56	------	56	------	------	------	------	------	------	------	------	------	------	------	51	5
Boiler makers, apprentices	7	------	7	------	------	------	------	------	4	3	------	------	------	------	------	------
Boiler makers, helpers	54	------	54	------	------	------	------	------	------	------	------	27	24	3	------	------
Carpenters and joiners	66	------	66	------	------	------	------	------	------	------	------	------	------	6	49	11
Carpenters, apprentices	7	------	7	------	------	------	------	------	6	1	------	------	------	------	------	------
Carpenters, helpers	36	------	36	------	------	------	------	------	------	------	1	20	15	------	------	------
Casting chippers	11	------	11	------	------	------	------	------	------	------	------	------	6	4	1	------
Chemists	1	------	1	------	------	------	------	------	------	------	------	------	------	------	------	1
Coppersmiths	18	------	18	------	------	------	------	------	------	------	------	------	------	1	13	4

TABLE No. 1. CITY OF SAN FRANCISCO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Coppersmiths, apprentices	25		25						4	9	2	9	1			
Coremakers	13		13												12	1
Cupolamen	5		4	1										2	3	
Draughtsmen	46		46									1	1	7	11	26
Draughtsmen, apprentices	14		14						1	7	4		2			
Electricians	9		9											3	3	3
Electricians, apprentices	8		8						5		3					
Electricians, helpers	6		6									3	3			
Engineers, mechanical	9		9							1		1				7
Engineers, stationary	5		4	1									1	1		3
Estimators	5		5													5
Flask makers	4		4											2	2	
Foundry helpers	47		34	13								18	26	3		
Firemen	3		3											3		
Launchmen	2		2												1	1
Machine hands	124		77	47							6	25	27	47	19	
Machinists	779		779											49	669	61
Machinists, apprentices	192		189	3					62	80	26	14	8	2		
Machinists, helpers	292		292								2	128	162			
Managers and foremen	116		103	13										1	1	114
Molders	44		44												34	10
Molders, apprentices	11		11						6	3		2				
Painters	85		85											2	82	1
Pattern makers	43		42	1											6	37
Pattern makers, apprentices	13		13						3	8	2					
Pattern makers, helpers	4		4											2	2	
Riggers	67		67										46	21		
Storekeepers	4		4									2			1	1
Structural iron workers	242		234	8										45	145	52
Structural iron workers, apprentices	67		65	2					18	30	18		1			
Structural iron workers, helpers	301		301									196	105			
General help	56		53	1			2				2	17	21	9	6	1

Clerical:																
Bookkeepers	26		25	1									3		3	20
Bookkeepers (F.)	10	2	8								1		4	2	2	1
Errand boys	12		12						5	6	1					
Office clerks	57		56	1								3	10	14	9	21
Office clerks (F.)	14		14							1	1	5	6	1		
Salesmen and buyers	49		45	4									2		4	43
Shipping clerks	7		7									2	2	1		2
Stenographers	4	4										1	2			1
Stenographers (F.)	37		37							1	1	3	14	14	3	1
Totals	3191	6	3087	96			2		115	157	71	477	498	279	1155	439
Mattresses, Pillows, and Bedding.	10	establishments.														
Manufacturing:																
Engineers	2			2									1		1	
Mattress makers	63		63												54	9
Mattress makers, helpers	10		10							2		7	1			
Mattress makers, wire	13		13							1	1		4	1	6	
Managers and foremen	11		11												1	10
Managers and forewomen	4		4								1	2		1		
Mechanics	9		9									3		4	1	1
Porters and packers	10		7	2			1				1	4	3	1	1	
Seamstresses	28		28							4	7	13	3	1		
Teamsters	8		8									5		3		
Upholsterers	45		45							1	1	4	1		17	21
Varnishers and finishers	7		7											1	6	
General help	36		30		6						4	14	13	2	3	
Clerical:																
Bookkeepers	4		4												1	3
Bookkeepers (F.)	3		3									1		2		
Office clerks	2		2								2					
Salesmen	4		4													4
Shipping clerks	3		3										1		2	
Stenographers (F.)	4		4								2	1	1			
Totals	266		255	4	6		1			8	19	54	28	16	93	48
Millinery.	2	establishments.														
Manufacturing:																
Makers (F.)	14		14							2	4	4	4			
Makers, apprentices (F.)	1		1					1								
Trimmers (F.)	5		5													5

TABLE No. 1. CITY OF SAN FRANCISCO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical:																
Errand boys	1		1							1						
Saleswomen	5		5											1	4	
Totals	26		26					1		3	4	4	4	1	4	5
Mouldings and Frames, Picture.	4	establishments.														
Manufacturing:																
Cabinet makers	8			8										1	6	1
Electricians	1			1												1
Frame makers	43			43						3	5	4	3	4	20	4
Frame makers, apprentices	4			4						2	1	1				
Managers and foremen	1			1												1
Porters and packers	11			9			2			1	2		4	4		
Seamstresses	1		1									1				
Teamsters	4			4								1	1	2		
Clerical:																
Bookkeepers	2			2								1			1	
Bookkeepers (F.)	3		3									1	1			1
Errand boys	4			4					1	3						
Office clerks	4			4						1	1				1	1
Office clerks (F.)	3		3								1		2			
Salesmen	21			21								4	1	2	4	10
Saleswomen	10		10								3	3	3	1		
Stenographers (F.)	3		3								1		1	1		
Stock clerks	4			4										2	2	
Totals	127		20	105			2		1	10	14	16	16	17	34	19
Newspapers.	6	establishments.														
Manufacturing:																
Artists	19	4	15								2					17
Compositors	95		95													95
Compositors (F.)	4		4													4

Compositors, apprentices	12		12							2	1	4	1	1	3	
Electricians	4		4													4
Engravers	15		15													15
Linotype operators	83		83													83
Linotype operators (F.)	4		4													4
Linotype operators, apprentices	1		1									1				
Machinists	5		5													5
Mailing room help	51		51									2	3	9	19	18
Managers and foremen	42	5	37													42
Marine operators	7		7													7
Porters and packers	3		3								1	2				
Pressmen	87		87											2	7	78
Pressmen, apprentices	14		14								1		11	2		
Proofreaders	17		17											2		15
Proofreaders (F.)	6		6										1		4	1
Reporters and editors	177		177								3	2	8	10	13	141
Reporters (F.)	10		10											1	1	8
Stereotypers	36	6	30													36
Stereotypers, helpers	5	1	4								1		2	1	1	
Teamsters	4	4										4				
Clerical:																
Bookkeepers	26		26								1	1	5	4	4	11
Bookkeepers (F.)	1		1									1				
Collectors	8		8							1	1				2	4
Errand boys	23		23						1	13	6	3				
Office clerks	89		89						2	17	11	7	8	20	6	18
Office clerks (F.)	15		15							3	7	2				3
Solicitors	174		174								5		5	87	23	54
Solicitors (F.)	1		1										1			
Stenographers (F.)	19	1	18								4	4	7	2	1	1
Totals	1057	21	1036						3	36	44	33	52	141	84	664
Optical Goods.	6	establishments.														
Manufacturing:																
Managers and foremen	8		3	5											1	7
Opticians	39		9	30					2	1	1	8	1	6	5	15
Porters and packers	5		2	3						2		1		1	1	
General help (F.)	1		1								1					
Clerical:																
Bookkeepers	1		1													1
Bookkeepers (F.)	5		5								1	2			1	1
Cashiers (F.)	3		3							1				1		1

TABLE No. 1. CITY OF SAN FRANCISCO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical—Continued.																
Errand boys	14		7	7					8	6						
Office clerks	6		4	2								1	1		1	3
Office clerks (F.)	8		8							1	3		3		1	
Salesmen	26		8	18									2	4	2	18
Saleswomen	1		1											1		
Shipping clerks	4		1	3						1	1	1			1	
Stenographers (F.)	5		5								1	3		1		
Stock clerks	6			6						2	1	2			1	
Totals	132		58	74					10	14	9	18	7	14	14	46
Oils and Grease.	1	establishment.														
Manufacturing:																
Coopers	1			1											1	
Engineers	2						2									2
Watchmen	1						1								1	
General help	62				36		26					24	10	24	4	
Totals	66			1	36		29					24	10	24	6	2
Paints, Varnishes, etc.	4	establishments.														
Manufacturing:																
Chemists	2		2													2
Engineers	1				1										1	
Firemen	4			4								1			1	2
Glass cutters	22			22								13	2	2	5	
Glaziers	28		28								1	2		1	24	
Managers and foremen	35		11	21	2	1									4	31
Mirror workers	35			35					2	1	2	5	2	14	7	2
Oilmen	3			3										1		2
Paint mixers	103			103									66	13	21	3
Packers and labelers (F.)	17	1	16					1		5	10				1	
Porters and packers	29		18	1	5		5				3	1	5	14	4	2
Printers	3			3							1				1	1

Stablemen	2	-----	-----	1	-----	1	-----	-----	-----	-----	-----	-----	1	-----	1	-----
Teamsters	16	-----	3	-----	-----	13	-----	-----	-----	-----	-----	-----	-----	10	3	3
General help	150	-----	4	136	10	-----	-----	-----	1	2	13	122	9	2	1	-----
Clerical:																
Bookkeepers	3	-----	3	-----	-----	-----	-----	-----	-----	-----	-----	1	1	-----	-----	1
Bookkeepers (F.)	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	-----
Cashiers	2	-----	2	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	-----	-----	1
Collectors	2	-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	1
Office clerks	29	-----	28	-----	1	-----	-----	-----	-----	2	6	1	5	5	4	6
Office clerks (F.)	11	-----	11	-----	-----	-----	-----	-----	-----	-----	2	5	4	-----	-----	-----
Salesmen	23	-----	23	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	4	19
Shipping clerks	6	-----	5	-----	1	-----	-----	-----	-----	-----	-----	2	-----	-----	1	3
Stenographers (F.)	5	-----	5	-----	-----	-----	-----	-----	-----	-----	-----	2	1	1	-----	1
Totals	532	2	161	329	20	15	5	1	3	10	39	155	97	63	84	80
Pastes, Macaroni, etc.	6	establishments.														
Manufacturing:																
Engineers	1	-----	-----	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
Managers and foremen	3	-----	-----	2	1	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	2
Millers	4	-----	-----	4	-----	-----	-----	-----	-----	-----	-----	-----	4	-----	-----	-----
Packers and labelers (F.)	10	-----	10	-----	-----	-----	-----	-----	-----	6	4	-----	-----	-----	-----	-----
Paste makers	53	-----	3	44	6	-----	-----	-----	-----	-----	2	6	37	8	-----	-----
Porters and packers	6	-----	-----	2	4	-----	-----	-----	-----	2	-----	-----	3	1	-----	-----
Teamsters	6	-----	1	-----	5	-----	-----	-----	-----	-----	-----	2	2	2	-----	-----
Clerical:																
Bookkeepers	3	-----	-----	2	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	3
Bookkeepers (F.)	1	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	-----
Salesmen	1	-----	-----	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
Stock clerks	1	-----	-----	1	-----	-----	-----	-----	-----	-----	1	-----	-----	-----	-----	-----
Totals	89	-----	15	55	19	-----	-----	-----	-----	8	7	8	46	13	-----	7
Patterns and Models.	5	establishments.														
Manufacturing:																
Pattern makers	22	-----	22	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	22
Pattern makers, apprentices	11	-----	11	-----	-----	-----	-----	-----	2	4	-----	3	1	1	-----	-----
Pattern makers, helpers	1	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	-----
Totals	34	-----	34	-----	-----	-----	-----	-----	2	4	-----	3	2	1	-----	22

TABLE No. 1. CITY OF SAN FRANCISCO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Pennants and Sporting Goods.	6	establishments.														
Manufacturing:																
Cutters	9	------	2	7	------	------	------	------	------	------	------	------	5	3	1	------
Cutters, helpers	7	------	------	7	------	------	------	------	------	2	3	2	------	------	------	------
Designers	9	------	7	2	------	------	------	------	------	------	------	3	1	4	------	1
Leather workers	13	------	------	13	------	------	------	------	------	------	1	1	4	4	3	------
Leather workers (F.)	5	------	5	------	------	------	------	------	------	2	2	1	------	------	------	------
Machinists	3	------	------	3	------	------	------	------	1	------	1	------	------	1	------	------
Managers and foremen	4	------	------	4	------	------	------	------	------	------	------	------	------	1	------	3
Operators (F.)	59	------	59	------	------	------	------	------	------	10	31	15	2	1	------	------
Trimmers (F.)	6	------	6	------	------	------	------	------	------	3	2	1	------	------	------	------
General help	5	------	4	1	------	------	------	------	------	2	1	2	------	------	------	------
General help (F.)	9	------	9	------	------	------	------	------	------	5	2	2	------	------	------	------
Clerical:																
Bookkeepers (F.)	4	------	4	------	------	------	------	------	------	------	3	------	------	1	------	------
Errand boys	1	------	------	1	------	------	------	------	------	1	------	------	------	------	------	------
Office clerks (F.)	2	------	2	------	------	------	------	------	------	1	1	------	------	------	------	------
Salesmen	4	------	2	2	------	------	------	------	------	------	------	1	1	1	1	------
Stock clerks	2	------	------	2	------	------	------	------	------	------	1	1	------	------	------	------
Totals	142	------	100	42	------	------	------	------	1	26	48	29	13	16	5	4
Photographs and Photo-engraving.	10	establishments.														
Manufacturing:																
Artists	13	------	13	------	------	------	------	------	------	------	1	------	1	4	------	7
Card writers	2	------	2	------	------	------	------	------	------	------	------	------	------	2	------	------
Photographers	6	------	------	6	------	------	------	------	------	------	------	------	4	1	1	------
Photographers (F.)	1	------	1	------	------	------	------	------	------	------	------	1	------	------	------	------
Photo-engravers	45	------	45	------	------	------	------	------	------	------	------	------	------	------	12	33
Photo-engravers, apprentices	4	------	4	------	------	------	------	------	------	1	2	------	------	1	------	------
Photo mount makers	30	------	------	30	------	------	------	------	------	------	------	6	7	11	4	2
Photo mount makers (F.)	29	------	29	------	------	------	------	------	10	17	2	------	------	------	------	------
Packers and labelers (F.)	7	------	7	------	------	------	------	------	2	3	1	1	------	------	------	------
Porters and packers	4	------	2	2	------	------	------	------	------	------	------	------	1	3	------	------

General help (F.)	3		3						1	1		1				
Clerical:																
Bookkeepers	4		4											3		1
Bookkeepers (F.)	2	1	1									1			1	
Errand boys	11		9	2					1	10						
Office clerks	2		2										1			1
Office clerks (F.)	11		11								3	5	1		1	1
Salesmen	7		3	4											2	5
Totals	181	1	136	44					14	32	9	15	15	25	21	50
Pickles, Preserves, Sauces, etc.	12	establishments.														
Manufacturing:																
Cooks	6			2	4						1		1	2	1	1
Coopers	6		1	4	1									2	4	
Engineers	4			2	2									1	2	1
Firemen	4			4									1	3		
Managers and foremen	13		4	5	4									1	1	11
Managers and forewomen	4		4							1	2	1				
Packers and labelers (F.)	45		45						4	32	7		2			
Porters and packers	9		7		2					2	2	1	2	2		
Teamsters	20		2	12	6							4	10	5	1	
Watchmen	3	1					2				1		2			
General help	89		25	15	49						23	12	36	5	13	
General help (F.)	53		53						26	25	2					
Clerical:																
Bookkeepers	8		4	4						1					7	
Bookkeepers (F.)	2		2								1				1	
Office clerks	4		2	1	1					1		2				1
Office clerks (F.)	5		5								2	1		1		1
Salesmen	35		22	13								1		2	13	19
Shipping clerks	7		1	2	4							3	3		1	
Stenographers (F.)	2		2								1		1			
Totals	319	1	179	64	73		2		30	62	42	25	58	24	44	31
Plating.	4	establishments.														
Manufacturing:																
Brass finishers	2			2											2	
Brass finishers, helpers	1			1								1				
Brass polishers	9			9											9	
Brass polishers, helpers	2			2							1		1			
Managers and foremen	3			3										1	2	

TABLE No. 1. CITY OF SAN FRANCISCO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Mechanics	3			3										1	1	1
Platers	4			4							1	1	1		1	
Teamsters	1			1							1					
Clerical:																
Bookkeepers	2			2										1	1	
Bookkeepers (F.)	1		1									1				
Totals	28		1	27							3	3	2	3	16	1
Plumbing, Steam and Gas Fitting.	3	establishments.														
Manufacturing:																
Managers and foremen	1		1													1
Plumbers	60		60												1	59
Plumbers, helpers	19		19										19			
Teamsters	1		1											1		
Clerical:																
Bookkeepers	1		1											1		
Bookkeepers (F.)	1		1											1		
Office clerks (F.)	1		1											1		
Stenographers (F.)	1		1									1				
Stock clerks	1		1											1		
Totals	86		86									1	19	5	1	60
Printing and Bookbinding.	108	establishments.														
Manufacturing:																
Artists	5		5								1			1		3
Bindery girls	324		324						34	74	166	38	11	1		
Bookbinders	132		132								1		1		78	52
Bookbinders, apprentices	53		53						4	21	10	4	13	1		
Compositors	285		285									3	4	7	175	96
Compositors (F.)	24		24									9	9	3	3	

Compositors, apprentices	72	1	71					1	1	22	17	16	13	2		
Copper plate printers	5		5												5	
Copper plate stampers (F.)	2		2							1	1					
Editors and reporters	8		8												1	7
Engravers	19	1	18												1	18
Engravers, apprentices	6		6						1	4		1				
Linotype operators	99	7	92											1	2	96
Linotype operators (F.)	13		13										1		3	9
Linotype operators, apprentices	3		3								1		2			
Lithographers	10		10												1	9
Lithographers, apprentices	5		5							3	1		1			
Machinists	1		1													1
Mailing-room help	8		8										3	4		1
Managers and foremen	100		100												1	99
Managers and forewomen	3		3										1	1		1
Packers (F.)	5		5							2	3					
Paper cutters	39		39										2	1	21	15
Porters and packers	34		31	3					3	6	3	11	6	5		
Press feeders	262	7	255							5	10	104	109	29	2	3
Press feeders (F.)	4		4									1	3			
Pressmen	202	2	200									1	1	8	84	108
Pressmen, apprentices	25		25							7	3	1	6	7	1	
Proofreaders	13		13								3	1		2	5	2
Proofreaders (F.)	55		55							3	12	15	7	13	3	2
Stereotypers	23		23													23
Stereotypers, helpers	5		5								1	3			1	
Teamsters	6		6							1		2	2	1		
Clerical:																
Bookkeepers	31		30	1							1	4	4	3	3	16
Bookkeepers (F.)	49	1	48							3	8	3	18	10	2	5
Errand boys	102	11	91					2	21	56	22		1			
Office clerks	37		37							1	6	5	9	5	1	10
Office clerks (F.)	24	1	23						2	3	7	5	1	4		2
Salesmen	76	1	75								1	1	7	6	7	54
Solicitors	22		22									7	10	2	1	2
Shipping clerks	12		12							1	1	3	3			4
Stenographers (F.)	43		43						1	3	20	10	3	4	1	1
Totals	2246	32	2210	4				3	67	216	299	248	251	121	102	639
Restaurants.	55	establishments.														
Manufacturing:																
Bakers	17		1	6	10						1	1	3	2	4	6
Bakers (F.)	7		7								1	2	3	1		

TABLE No. 1. CITY OF SAN FRANCISCO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

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		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Bakers, apprentices	2			1	1						1	1				
Bakers, helpers	11			3	8					1	5	5				
Bartenders	26			5	21						6	1	3	11	2	3
Bus.boys	24	5			19					8	15	1				
Cooks	184			10	152	20	2				2	6	13	55	51	57
Cooks (F.)	4		4										1	2	1	
Cooks, helpers	83	1		1	69	6	6			3	48	27	3	2		
Engineers	3				3							2				1
Kitchen help	215			5	168	32	10			27	152	28	3	4	1	
Kitchen help (F.)	5		5							5						
Lunchmen	20	18		2						17	1		1	1		
Managers and foremen	22			2	14	4	2							3	2	17
Managers and forewomen	1		1													1
Meat cutters	2				2						1		1			
Porters and packers	33			2	27	2	2			2	22	8	1			
Storekeepers	6				6							2	2	1		1
Waiters	457	58		43	342	11	3			67	32	307	28	6	7	10
Waitresses	199	65	134						9	138	46	4	1	1		
Clerical:																
Bookkeepers	4			1	3										1	3
Bookkeepers (F.)	4	2	2							1	1		1	1		
Cashiers	19				17	2					2	1	7	3	1	5
Cashiers (F.)	22	5	17							7	10	3	2			
Office clerks	7			1	6						1		4		1	1
Office clerks (F.)	2		2					1			1					
Saleswomen	6	6							2	4						
Totals	1385	160	173	82	868	77	25	1	11	280	348	399	77	93	71	105
Roofing.	1	establishment.														
Manufacturing:																
Engineers	2		2												2	
Managers and foremen	2			2												2

Teamsters	1			1										1		
General help	17			16			1				1	10	3	2	1	
Clerical:																
Bookkeepers	1		1													1
Shipping clerks	2		1	1									1	1		
Stenographers (F.)	2	2									1	1				
Totals	27	2	4	20			1				2	11	4	4	3	3
Rubber Goods.	5	establishments.														
Manufacturing:																
Engineers	1			1										1		
Managers and foremen	8		8													8
Porters and packers	4		4								2	2				
Rubber workers	30	4	14	12								7	10	4	3	6
Rubber workers, apprentices	5		5							2	3					
Teamsters	1		1											1		
Clerical:																
Bookkeepers	5		5											1	2	2
Errand boys	2		2							2						
Office clerks	25		25										8	4	4	9
Office clerks (F.)	4		4										2			2
Salesmen	24		24											1		23
Shipping clerks	4		4								1		2	1		
Stenographers (F.)	6	1	5										4	2		
Totals	119	5	101	13						4	6	9	26	15	9	50
Safes and Vaults.	1	establishment.														
Manufacturing:																
Draughtsmen	1			1										1		
Machinists	8			8											8	
Machinists, helpers	4			4										4		
Painters	3			3										2		1
Painters, apprentices	3			3						2	1					
Clerical:																
Bookkeepers	1			1												1
Stenographers (F.)	1		1							1						
Totals	21		1	20						3	1			7	8	2

TABLE No. 1. CITY OF SAN FRANCISCO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Shipwrights, Caulkers, etc.	4	establishments.														
Manufacturing:																
Blacksmiths	6		6												3	3
Blacksmiths, helpers	7		7											7		
Boilermakers	4		4												4	
Boatbuilders	14		14											4	10	
Boatbuilders, apprentices	10		10						1	5	1	2	1			
Boatbuilders, helpers	2		2							1		1				
Engineers	1		1											1		
Machinists	3		3												3	
Machinists, helpers	4		4											4		
Managers and foremen	1		1													1
Teamsters	1		1										1			
Woodturners	1		1												1	
Clerical:																
Bookkeepers	1		1													1
Stenographers (F.)	1		1								1					
Totals	56		56						1	6	2	3	2	16	21	5
Slaughtering and Meat Packing.	18	establishments.														
Manufacturing:																
Chemists	1				1											1
Coopers and boxmakers	8		1	1	6							4	1	3		
Coolermen	21		5	8	8							7	4	4	3	3
Engineers	13		1		12								1	2	7	3
Fertilizer department men	22			22								18	3	1		
Firemen	3				3						1			2		
Killers and dressers	116	5	37	43	31						1	14	10	27	45	19
Killers and dressers, apprentices	11			11								7	4			
Managers and foremen	71		49	15	7									5	5	61
Meatcutters	37			22	15						2	7	8	13	7	
Mechanics	27				27							2	8	14	3	
Packers	68			47	21							24	20	11	11	2

Sausage makers	23	------	------	13	10	------	------	------	------	------	------	7	------	8	6	2
Seamstresses	3	------	3	------	------	------	------	------	------	1	2	------	------	------	------	------
Stablemen	5	------	------	------	5	------	------	------	------	------	------	------	1	1	3	------
Teamsters	94	------	68	1	19	------	6	------	------	------	------	9	25	18	29	13
Vaqueros	31	------	12	18	1	------	------	------	------	------	------	12	7	10	2	------
Watchmen	8	------	------	------	6	------	2	------	------	------	------	1	3	3	1	------
Woolpullers	21	------	------	21	------	------	------	------	------	------	------	9	9	2	1	------
General help	392	------	37	58	297	------	------	------	------	17	160	90	59	33	28	5
Clerical:																
Bookkeepers	17	------	15	------	2	------	------	------	------	------	1	------	4	6	3	3
Bookkeepers (F.)	1	------	1	------	------	------	------	------	------	------	------	------	------	1	------	------
Cashiers	4	------	3	------	1	------	------	------	------	------	------	------	1	------	1	2
Collectors	2	------	2	------	------	------	------	------	------	------	------	------	2	------	------	------
Office clerks	52	------	41	11	------	------	------	------	1	6	1	7	9	13	9	6
Office clerks (F.)	4	------	4	------	------	------	------	------	------	1	1	2	------	------	------	------
Salesmen	72	------	57	14	1	------	------	------	------	------	------	------	4	10	19	39
Shipping clerks	13	------	2	------	11	------	------	------	------	------	------	------	4	4	4	1
Stenographers (F.)	9	------	9	------	------	------	------	------	------	------	4	1	2	1	1	------
Stock clerks	3	------	3	------	------	------	------	------	------	------	------	------	2	1	------	------
Totals	1,152	5	350	365	484	------	8	------	1	25	173	221	191	193	188	160
Smelting.	2	establishments.														
Manufacturing:																
Carpenters	2	------	------	2	------	------	------	------	------	------	------	------	1	------	1	------
Machinists	2	------	------	1	1	------	------	------	------	------	------	------	------	------	------	2
Managers and foremen	2	------	------	2	------	------	------	------	------	------	------	------	------	1	------	1
Porters and packers	3	------	------	3	------	------	------	------	------	------	------	------	3	------	------	------
Teamsters	2	------	------	------	2	------	------	------	------	------	------	------	1	------	1	------
Watchmen	3	------	------	------	------	------	3	------	------	------	1	------	1	1	------	------
General help	46	------	------	26	20	------	------	------	------	------	------	20	20	4	2	------
Clerical:																
Bookkeepers	2	------	------	2	------	------	------	------	------	------	------	------	------	2	------	------
Errand boys	2	------	1	1	------	------	------	------	------	2	------	------	------	------	------	------
Office clerks	1	------	------	1	------	------	------	------	------	------	------	------	------	------	------	1
Shipping clerks	1	------	------	------	1	------	------	------	------	------	------	------	------	------	1	------
Stenographers (F.)	2	------	2	------	------	------	------	------	------	------	------	1	1	------	------	------
Totals	68	------	3	38	24	------	3	------	------	2	1	21	27	8	5	4

TABLE No. 1. CITY OF SAN FRANCISCO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.									
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Soap, Tallow, and Glue.	6	establishments.															
Manufacturing:																	
Engineers	2				2										2	
Firemen	2				2								1		1	
Glue cooks	2				2									2		
Managers and foremen	5			3	2										1	4
Soapmakers	15		9	6								3	8	1	3	
Teamsters	8		2	3	3								1	3	4	
Watchmen	2				1		1					1		1		
Wrappers (F.)	12		12								11	1				
General help	71			37	34						9	26	14	16	6	
Clerical:																
Bookkeepers	4		2	2											4	
Shipping clerks	1				1									1		
Stenographers (F.)	1		1											1		
Totals	125		26	51	47		1				20	31	24	25	21	4
Soda and Mineral Water.	4	establishments.															
Manufacturing:																	
Bottlers	9			9									6		3	
Bottlewashers	1			1									1			
Engineers	1			1												1
Managers and foremen	2		1	1										1		1
Porters and packers	1			1										1		
Teamsters	18			17			1							1	9	8
General help	6			6									5	1		
Clerical:																
Bookkeepers	1		1											1		
Bookkeepers (F.)	1		1											1		
Salesmen	7			7												7
Shipping clerks	1		1											1		

Stenographers (F.)	1		1								1					
Totals	49		5	43			1				1		12	7	12	17
Stencils and Stamps.	2	establishments.														
Manufacturing:																
Diemakers	1			1											1	
Engravers	2			2											2	
Engravers, apprentices	2			2						2						
Managers and foremen	1			1												1
Stampmakers	2			2									1	1		
Clerical:																
Errand boys	1			1						1						
Salesmen	1			1												1
Totals	10			10						3			1	1	3	2
Stone and Marble.	8	establishments.														
Manufacturing:																
Draughtsmen	9		9											1		8
Engineers	3		1	2												3
Managers and foremen	6		5	1												6
Mosaic and terazzo workers	17		17										11	6		
Stone and marble workers	95		94	1									5	14	50	26
Stone and marble workers, apprentices	2		2									2				
Stone and marble setters	48		48													48
Stone and marble setters, helpers	20		20							3		1	16			
Stone and marble polishers	42		42										4		38	
Stone and marble cutters	26		26											1	4	21
Teamsters	4		4											2	2	
Tile setters	4		4										2			2
Timekeepers	1		1													1
General help	32		31	1								11	16	5		
Clerical:																
Bookkeepers	1		1													1
Bookkeepers (F.)	2	1	1											2		
Office clerks	3		3								1	1	1			
Salesmen	6		6													6
Stenographers (F.)	5		5										2	2	1	
Totals	326	1	320	5						3	1	15	57	33	95	122

TABLE No. 1. CITY OF SAN FRANCISCO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Stoves and Furnaces.	5	establishments.														
Manufacturing:																
Blacksmiths	3			3									1		2	
Boilermakers	21			21										12	7	2
Boilermakers, helpers	8			8						1			6	1		
Brickmasons	2		2											1		1
Casting chippers	1		1												1	
Coremakers	3		3								1					2
Cupolamen	6		2	4								4			2	
Foundry helpers	19		5	14						1		8	4	1	5	
Ironworkers	11		7	4						1		1	1		8	
Machinists	5			5								1		2	2	
Managers and foremen	8		1	7										1	1	6
Molders	52		19	33										3	27	22
Molders, apprentices	7		1	6								4	2	1		
Patternmakers	5		1	4										2	2	1
Platers and polishers	3			3									1		2	
Plumbers	5		3	2										2		3
Plumbers, helpers	2		2									2				
Porters and packers	4		2	2								2		1		1
Sheet metal workers	25		7	18										6	11	8
Sheet metal workers, apprentices	2			2							2					
Stove mounters	4			4											4	
Teamsters	5		2	3								2		2	1	
Watchmen	2			1	1							1	1			
General help	4		2	2									3	1		
Clerical:																
Bookkeepers	5		5													5
Bookkeepers (F.)	2		2									1	1			
Office clerks	3		2	1									1		2	
Salesmen	7		7										1			6
Shipping clerks	6		3	3						1	1	1	1		2	
Stenographers (F.)	3		3										2		1	

Stock clerks	3	------	------	3	------	------	------	------	------	------	1	1	------	1	------	------
Totals	236	------	82	153	1	------	------	------	------	4	5	28	25	37	80	57
Sugar Refining.	1	establishment.														
Manufacturing:																
Engineers and firemen	19	------	------	5	------	14	------	------	------	------	------	------	3	------	------	16
Laboratory help	22	------	22	------	------	------	------	------	------	9	2	3	3	1	1	3
Managers and foremen	18	------	8	------	------	------	10	------	------	------	------	------	1	1	7	9
Mechanics	48	------	48	------	------	------	------	------	------	------	------	------	------	------	25	23
Mechanics, helpers	32	------	31	1	------	------	------	------	------	------	------	3	9	20	------	------
Sugar boilers	9	------	9	------	------	------	------	------	------	------	------	------	------	2	1	6
Teamsters	3	------	------	------	3	------	------	------	------	------	------	------	3	------	------	------
Watchmen	11	------	------	------	------	------	11	------	------	------	------	8	2	------	1	------
General help	301	------	3	11	2	------	285	------	------	------	6	25	188	78	4	------
General help (F.)	11	------	11	------	------	------	------	------	8	3	------	------	------	------	------	------
Clerical:																
Office clerks	17	------	17	------	------	------	------	------	------	------	------	1	1	1	2	12
Office clerks (F.)	1	------	1	------	------	------	------	------	------	------	------	1	------	------	------	------
Totals	492	------	150	17	5	14	306	------	8	12	8	41	210	103	41	69
Tailor Shops.	38	establishments.														
Manufacturing:																
Alteration hands (F.)	57	------	57	------	------	------	------	------	1	1	4	15	24	4	------	8
Bushelmen	20	------	------	20	------	------	------	------	------	------	------	------	------	------	17	3
Bushelmen, apprentices	1	------	------	1	------	------	------	------	------	1	------	------	------	------	------	------
Cutters	29	------	10	19	------	------	------	------	------	------	------	------	------	1	5	23
Cutters, apprentices	1	------	1	------	------	------	------	------	------	1	------	------	------	------	------	------
Finishers (F.)	152	------	152	------	------	------	------	------	------	10	47	63	24	8	------	------
Finishers, apprentices (F.)	7	------	7	------	------	------	------	------	7	------	------	------	------	------	------	------
Managers and foremen	4	------	1	3	------	------	------	------	------	------	------	------	------	------	------	4
Managers and forewomen (F.)	1	------	1	------	------	------	------	------	------	------	------	------	1	------	------	------
Porters and packers	9	------	1	8	------	------	------	------	------	------	1	5	2	1	------	------
Pressers	29	------	15	14	------	------	------	------	------	------	------	------	------	13	9	7
Tailors	224	------	152	72	------	------	------	------	------	------	------	------	3	21	78	122
Tailors (F.)	34	------	34	------	------	------	------	------	------	2	4	15	11	2	------	------
Clerical:																
Bookkeepers	4	------	2	2	------	------	------	------	------	------	1	------	------	1	------	2
Bookkeepers (F.)	15	1	14	------	------	------	------	------	------	1	------	4	6	1	1	2
Cashiers (F.)	2	------	2	------	------	------	------	------	------	------	------	------	2	------	------	------
Errand boys	27	3	13	11	------	------	------	------	4	20	3	------	------	------	------	------
Errand girls	2	------	2	------	------	------	------	------	------	1	------	1	------	------	------	------

TABLE No. 1. CITY OF SAN FRANCISCO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.) Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical—Continued.																
Office clerks (F.)	6		6							3	2	1				
Salesmen	24		13	11							1			2		21
Saleswomen (F.)	17		17						3	3		4	2	3		2
Stenographers (F.)	2		2								1	1				
Stock clerks	4			4							1		3			
Totals	671	4	502	165					15	43	65	109	78	57	110	194
Tinware, Sheet Metal, etc.	28	establishments.														
Manufacturing:																
Brass polishers	4		3	1										2	2	
Carpenters	6		6										1		1	4
Draughtsmen	2		2													2
Housesmiths	4		4												3	1
Housesmiths, apprentices	1		1							1						
Improvers	2		2												2	
Machinists	5		3	2										2	2	1
Managers and foremen	28		27	1										1		27
Plumbers and steam fitters	9		9											1	2	6
Plumbers, helpers	5		5										1	4		
Sheet metal workers	192		175	17											30	162
Sheet metal workers, apprentices	53		53						1	6	7	9	16	9	5	
Sheet metal workers, helpers	40		38	2						1	1	8	21	9		
Teamsters	3		2		1					1			2			
General help	51		31	20						13	3	1	19	8	6	1
General help (F.)	8		8							4	4					
Clerical:																
Bookkeepers	7		7											1		6
Bookkeepers (F.)	7	2	5								3	1	2	1		
Office clerks	5		4	1							1	1		1		2
Salesmen	8		8										1	1	1	5
Stenographers (F.)	8		8								2	1	2	2		1
Totals	448	2	401	44	1				1	26	21	21	65	42	54	218

Tools and Hardware.	2	est	ablis	hmen	ts.											
Manufacturing:																
Machinists	15	------	15	------	------	------	------	------	------	------	------	1	3	3	8	------
Machinists, apprentices	4	------	4	------	------	------	------	------	------	2	2	------	------	------	------	------
Managers and foremen	2	------	2	------	------	------	------	------	------	------	------	------	------	------	------	2
Porters and packers	1	------	------	1	------	------	------	------	------	------	------	------	------	1	------	------
Saw makers	12	------	12	------	------	------	------	------	------	------	------	3	1	------	8	------
Clerical:																
Bookkeepers (F.)	1	------	1	------	------	------	------	------	------	------	------	------	------	------	------	1
Errand boys	1	------	------	1	------	------	------	------	------	1	------	------	------	------	------	------
Office clerks (F.)	2	------	2	------	------	------	------	------	------	------	1	------	------	------	1	------
Salesmen	4	------	------	4	------	------	------	------	------	------	------	------	------	------	------	4
Totals	42	------	36	6	------	------	------	------	------	3	3	4	4	4	17	7
Trunks, Valises, etc.	7	est	ablis	hmen	ts.											
Manufacturing:																
Engineers	1	------	------	1	------	------	------	------	------	------	------	------	------	1	------	------
Leather workers	11	------	------	11	------	------	------	------	------	------	------	------	6	2	3	------
Leather workers, helpers	5	------	------	5	------	------	------	------	------	2	------	3	------	------	------	------
Managers and foremen	6	------	------	6	------	------	------	------	------	------	------	------	------	------	2	4
Managers and forewomen	1	------	1	------	------	------	------	------	------	------	------	------	1	------	------	------
Millmen	6	------	------	6	------	------	------	------	------	------	2	1	------	2	1	------
Operators (F.)	3	------	3	------	------	------	------	------	------	------	3	------	------	------	------	------
Suitcase makers	13	------	------	13	------	------	------	------	------	------	------	3	5	3	2	------
Suitcase makers, apprentices	9	------	------	9	------	------	------	------	------	6	1	2	------	------	------	------
Teamsters	3	------	------	3	------	------	------	------	------	------	------	1	------	1	------	1
Trunk makers	67	------	------	67	------	------	------	------	------	4	4	11	16	29	2	1
Trunk makers, apprentices	4	------	------	4	------	------	------	------	------	4	------	------	------	------	------	------
Watchmen	1	------	------	1	------	------	------	------	------	------	------	1	------	------	------	------
General help (F.)	20	------	20	------	------	------	------	------	------	13	7	------	------	------	------	------
Clerical:																
Bookkeepers	2	------	------	2	------	------	------	------	------	------	------	------	------	------	------	2
Bookkeepers (F.)	1	------	1	------	------	------	------	------	------	------	------	------	1	------	------	------
Errand boys	1	------	------	1	------	------	------	------	------	1	------	------	------	------	------	------
Salesmen	8	------	4	4	------	------	------	------	------	------	------	------	2	1	------	5
Saleswomen (F.)	1	------	1.	------	------	------	------	------	------	------	1	------	------	------	------	------
Shipping clerks	3	------	------	3	------	------	------	------	------	------	------	------	2	1	------	------
Stenographers (F.)	4	------	4	------	------	------	------	------	------	------	2	------	2	------	------	------
Stock clerks	4	------	------	4	------	------	------	------	------	------	------	------	2	2	------	------
Totals	174	------	34	140	------	------	------	------	------	30	20	22	37	42	10	13

TABLE No. 1. CITY OF SAN FRANCISCO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Wire and Wire Products.	5	establishments.														
Manufacturing:																
Carpenters	6				6								2	2	2	
Draughtsmen	7		4	3							1	1	1	1	2	1
Housesmiths	16			16								1	2	3	9	1
Housesmiths, apprentices	6			6						1	1	2	2			
Machine hands	53				53						3	15	20	10	5	
Machinists	8				8									5	3	
Machinists, helpers	2				2							1	1			
Managers and foremen	14			14											5	9
Mechanics	5				4		1						2	2		1
Watchmen	3						3						2	1		
Wire workers	3		2	1							1			1	1	
General help	43			1	42						2	31	6	4		
Clerical:																
Bookkeepers (F.)	2		2								1		1			
Office clerks	8			8							1	1	4	2		
Office clerks (F.)	1		1								1					
Salesmen	3		3											1	1	1
Stenographers (F.)	3		3								1	1		1		
Totals	183		15	49	115		4			1	12	53	43	33	28	13
Miscellaneous.	32	establishments.														
Manufacturing:																
Car builders	26		26										5	10	11	
Carpenters	2			2								1			1	
Chemists	7	6		1								1		4		2
Engineers	5			3	2									1	3	1
Engravers	8			8						1		2	1	1	3	
Machinists	12		11		1						1		1	1	7	2
Managers and foremen	18		12	6										3	1	14
Mechanics	35		28	4	3					1		4	2	10	18	
Porters and packers	13		4	5			4			2	1	2	4	2	1	1

Seamstresses (F.)	8	------	8	------	------	------	------	------	------	3	4	1	------	------	------	------
Teamsters	5	------	2	1	2	------	------	------	------	------	------	3	------	2	------	------
Warehousemen	11	------	------	11	------	------	------	------	------	------	------	3	2	4	2	------
General help	337	3	73	229	32	------	------	------	------	21	67	87	92	23	46	1
General help (F.)	83	------	83	------	------	------	------	------	16	34	26	4	1	1	------	1
Clerical:																
Bookkeepers	6	------	5	1	------	------	------	------	------	------	------	------	------	2	------	4
Bookkeepers (F.)	10	3	7	------	------	------	------	------	------	------	------	------	5	3	------	2
Errand boys	6	1	2	3	------	------	------	------	2	4	------	------	------	------	------	------
Office clerks	3	1	1	1	------	------	------	------	------	1	------	------	1	1	------	------
Office clerks (F.)	2	------	2	------	------	------	------	------	------	2	------	------	------	------	------	------
Salesmen	16	------	12	4	------	------	------	------	------	------	------	------	1	3	------	12
Saleswomen	2	------	2	------	------	------	------	------	------	------	1	------	1	------	------	------
Shipping clerks	4	------	1	3	------	------	------	------	------	------	------	------	2	1	------	1
Stenographers (F.)	11	5	6	------	------	------	------	1	------	------	3	1	4	2	------	------
Totals	630	19	285	282	40	------	4	1	18	69	103	109	122	74	93	41

TABLE No. 2. CITY OF SAN FRANCISCO.

Wholesale Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Bicycles, Motorcycles and Supplies.	3	establishments.														
Bookkeepers	2		1	1											1	1
Bookkeepers (F.)	2		2									1	1			
Errand boys	1			1						1						
Machinists	1			1											1	
Machinists, apprentices	1			1						1						
Managers and foremen	3			3												3
Mechanics	6		6								3			1	2	
Porters and packers	3			3							3					
Salesmen	7		3	4									1	2	1	3
Stenographers (F.)	3	2	1								1			2		
Stock clerks	1			1									1			
Totals	30	2	13	15						2	7	1	3	5	5	7
Boots and Shoes.	5	establishments.														
Bookkeepers	3		2	1										2		1
Bookkeepers (F.)	2		2												2	
Cashiers	1			1												1
Cashiers (F.)	1		1													1
Errand boys	1		1								1					
Office clerks	1			1												1
Office clerks (F.)	2		2									1	1			
Porters and packers	16		6	10						1	1	2	2	8	2	
Salesmen	27		21	6											7	20
Shipping clerks	4		1	3									1	1	1	1
Stenographers (F.)	7	3	4									2	3	2		
Stock clerks	11		8	3								1	6	4		
Teamsters	3			3										3		
Totals	79	3	48	28						1	2	6	13	20	12	25
Building Materials.	1	establishment.														
Bookkeepers (F.)	1		1												1	
Draughtsmen	1		1													1

Managers and foremen	2	------	1	------	1	------	------	------	------	------	------	------	------	------	1	1
Office clerks	2	------	2	------	------	------	------	------	------	------	------	1	------	------	------	1
Salesmen	1	------	1	------	------	------	------	------	------	------	------	------	------	------	------	1
Shipping clerks	2	------	------	------	2	------	------	------	------	------	------	------	1	------	1	------
Stenographers (F.)	1	------	1	------	------	------	------	------	------	------	------	------	------	------	1	------
Teamsters	6	------	------	------	6	------	------	------	------	------	------	------	3	3	------	------
Telephone girls	1	------	1	------	------	------	------	------	------	------	1	------	------	------	------	------
Totals	17	------	8	------	9	------	------	------	------	------	1	1	4	3	4	4
Butchers' Supplies.	3	establishments.														
Bookkeepers	3	------	2	1	------	------	------	------	------	------	1	------	------	------	------	2
Bookkeepers (F.)	1	------	1	------	------	------	------	------	------	------	------	------	------	------	------	1
Machinists	2	------	2	------	------	------	------	------	------	------	------	------	------	1	------	1
Managers and foremen	3	------	2	1	------	------	------	------	------	------	------	------	------	------	------	3
Office clerks	1	------	------	1	------	------	------	------	------	------	------	------	1	------	------	------
Porters and packers	6	------	5	1	------	------	------	------	------	------	3	------	1	1	------	1
Salesmen	12	------	6	6	------	------	------	------	------	------	------	------	------	------	2	10
Shipping clerks	1	------	1	------	------	------	------	------	------	------	------	------	------	1	------	------
Stencil cutters (F.)	1	------	1	------	------	------	------	------	------	------	1	------	------	------	------	------
Stenographers (F.)	2	------	2	------	------	------	------	------	------	------	------	2	------	------	------	------
Totals	32	------	22	10	------	------	------	------	------	------	5	2	2	3	2	18
Cigars and Tobaccos.	9	establishments.														
Bookkeepers	6	------	3	3	------	------	------	------	------	------	------	------	------	3	------	3
Bookkeepers (F.)	6	1	5	------	------	------	------	------	------	------	------	1	------	3	------	2
Cashiers	5	------	3	2	------	------	------	------	------	------	------	------	------	------	3	2
Errand boys	4	------	2	2	------	------	------	------	------	2	2	------	------	------	------	------
Managers and foremen	12	------	7	5	------	------	------	------	------	------	------	------	------	------	------	12
Office clerks	17	------	11	6	------	------	------	------	------	------	1	1	5	4	3	3
Office clerks (F.)	10	------	10	------	------	------	------	------	------	4	1	------	2	1	------	2
Porters and packers	34	------	5	29	------	------	------	------	------	------	1	12	11	2	1	7
Salesmen	135	------	65	70	------	------	------	------	------	------	------	1	7	34	26	67
Shipping clerks	8	1	3	4	------	------	------	------	------	------	1	------	1	------	2	4
Stenographers (F.)	21	1	20	------	------	------	------	------	------	1	2	2	6	6	2	2
Stock clerks	6	------	3	3	------	------	------	------	------	------	------	------	------	2	2	2
Teamsters	2	------	------	2	------	------	------	------	------	------	------	------	------	1	------	1
Telephone girls	2	------	2	------	------	------	------	------	------	------	------	1	1	------	------	------
Totals	268	3	139	126	------	------	------	------	------	7	8	18	33	56	39	107

TABLE No. 2. CITY OF SAN FRANCISCO.

Wholesale Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clothing.	27	establishments.														
Bookkeepers	34		7	26	1							1	4	4	3	22
Bookkeepers (F.)	11	2	9							2	1	1	4	1	1	1
Bushelmen	1			1										1		
Cashiers	9		1	8									1			8
Cashiers (F.)	1		1											1		
Errand boys	29		12	16	1			1		25	3					
Finishers (F.)	4		4							3		1				
Managers and foremen	34		12	22											1	33
Office clerks	36		10	23	3					1	3	6	12	4	1	9
Office clerks (F.)	37		37							10	11	10	3	1		2
Porters and packers	53		10	39	4					3	5	9	19	13	3	1
Salesmen	191	1	120	70							2	4	4	8	20	153
Saleswomen	21		21							15	3	1	1	1		
Seamstresses	6		6							3	1				2	
Shipping clerks	19	1	2	15	1					1	2	1	2	5	5	3
Stenographers	2		1	1									1	1		
Stenographers (F.)	38	2	36							5	9	8	9	3	2	2
Stock clerks	110	1	6	90	13					23	27	21	18	8	7	6
Stock clerks (F.)	11		11							3	6		1		1	
Telephone girls	2		2									2				
Teamsters	1		1								1					
Totals	650	7	309	311	23			1		94	71	65	79	51	46	240
Commission Merchants.	26	establishments.														
Bookkeepers	36		15	9	12								1	1	5	29
Bookkeepers (F.)	17		17									3	4	1	2	7
Buyers	3		2		1											3
Cashiers	6		2	3	1											6
Cashiers (F.)	3		3										1	2		
Collectors	2		1	1									1		1	
Errand boys	4		3		1					2	2					
Managers	29		15	3	11										1	28
Office clerks	19		11	5	3					1			4	7		7

Office clerks (F.)	10		10								2	3	1	1		
Packers and wrappers (F.)	11		11							2	9					
Porters and packers	142		15	55	69		3				1	4	23	86	17	11
Salesmen	94		20	18	54		2					1	1	6	10	76
Shipping clerks	18		2	6	9		1			1			3	5	3	6
Stenographers	2		1		1								1	1		
Stenographers (F.)	37	1	36							1	5	4	9	7	11	
Stock clerks	3			1	2								2			1
Teamsters	42		4	5	33						2		8	8	16	8
Totals	478	1	168	106	197		6			7	21	15	59	125	66	185
Drugs and Chemicals.	10	establishments.														
Bookkeepers	15		7	8									3		1	11
Bookkeepers (F.)	7		7									4	2	1		
Buyers	2			2												2
Carpenters	2		2										1	1		
Cashiers	5		3	2									1		1	3
Cashiers (F.)	2		2										1			1
Collectors	2	1		1						1						1
Errand boys	23		7	16					5	18						
Laboratory help	18			18						1	8	1	2	1	1	4
Laboratory help (F.)	114		114						5	56	29	16	4	1	2	1
Managers and foremen	31		15	16										1	2	28
Managers and forewomen	1		1													1
Office clerks	30		8	22					1	4	2	6	6	3	5	3
Office clerks (F.)	72		72						7	22	23	16	3	1		
Porters and packers	38		13	25							2	5	24	5	2	
Printers	2			2								1				1
Salesmen	61		10	51								1		1	2	57
Saleswomen	4		4									4				
Shipping clerks	11		4	7							1		3	5	2	
Stenographers	1			1												1
Stenographers (F.)	31		31						2	7	4	7	7	3	1	
Stock clerks	91		19	72						10	23	19	17	10	7	5
Stock clerks (F.)	11		11							2	4	5				
Teamsters	2		2											1	1	
Totals	576	1	332	243					20	121	96	85	74	34	27	119
Dry Goods.	5	establishments.														
Bookkeepers	14		2	12								2		1	1	10
Cashiers	3			3												3
Errand boys	7			7					5		2					
Managers and foremen	5			5											1	4

TABLE No. 2. CITY OF SAN FRANCISCO.

Wholesale Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Dry Goods—Continued.																
Office clerks	17		3	14								6	6	2	2	1
Office clerks (F.)	7		7								1	4	1	1		
Porters and packers	33			28	5					4	3	5	16	3	1	1
Salesmen	90		10	80						1	7	3	6	7	6	60
Shipping clerks	6			5	1						1		1		1	3
Stenographers	1			1										1		
Stenographers (F.)	13		13								1	5	1	4	2	
Stock clerks	49			49						12	12	4	4	11	4	2
Totals	245		35	204	6				5	17	27	29	35	30	18	84
Fish, Oysters, etc.	6	establishments.														
Bookkeepers	9	2	2	3	2										3	6
Bookkeepers (F.)	4	1	3									1	1	1	1	
Collectors	2			1	1									1		1
Managers and foremen	16	2	1		13									7		9
Office clerks	1		1										1			
Porters and packers	40				40							3	6	19	12	
Salesmen	24				10		14						12	1		11
Stenographers (F.)	1	1											1			
Teamsters	16		2		14								2	9	1	4
General help	38		2		31		5				1	7	11	2	1	16
Totals	151	6	11	4	111		19				1	11	34	40	18	47
Furniture, Carpets, etc.	7	establishments.														
Bookkeepers	6		3	3									1			5
Bookkeepers (F.)	6		6							1		1		2	1	1
Carpet cutters	1		1													1
Cashiers	2		1	1											1	1
Errand boys	2			2						1	1					
Finishers	12		12									8			2	2
Managers and foremen	6		1	5											1	5
Office clerks	8		3	5						1	2		1	1	1	2

Office clerks (F.)	10		10									1	9			
Operators (F.)	4		4									4				
Porters and packers	22		12	10								10	3	8		1
Salesmen	31		11	20										2	11	18
Saleswomen	1		1											1		
Shade makers	9		9									2			6	1
Shade makers (F.)	2		2							1		1				
Shipping clerks	8		1	7								1		3	1	3
Stenographers (F.)	11		11									4	3	3	1	
Stock clerks	33			33							31	2				
Teamsters	2			2										1	1	
General help	3			3									3			
Totals	179		88	91						4	34	34	20	21	26	40
Gas and Electrical Goods.	9	establishments.														
Bookkeepers	10		6	4						1		1	1	3		4
Bookkeepers (F.)	3		3										1			2
Cashiers	2		1	1									1			1
Cashiers (F.)	2	1	1										1		1	
Collectors	1		1													1
Demonstrators (F.)	1		1										1			
Engineers	10		10													10
Errand boys	15	1	14						1	14						
Managers and foremen	17		17													17
Office clerks	92	3	77	12					1	15	4	11	26	16	9	10
Office clerks (F.)	18	2	16							2	3	7	4	1	1	
Porters and packers	47		27	20						3	3	9	26	5	1	
Salesmen	90		65	25						1	1		2	2	11	73
Shipping clerks	8		4	4								1	1	1	4	1
Stenographers (F.)	58	5	53							2	2	15	32	4	2	1
Stock clerks	15	2	7	6						3		2	1	7	2	
Teamsters	1			1											1	
Telephone girls	1		1								1					
Totals	391	14	304	73					2	41	14	46	97	39	32	120
Glass.	2	establishments.														
Art glass workers	2		2													2
Bookkeepers	1		1													1
Bookkeepers (F.)	1		1											1		
Collectors	1		1													1
Glaziers	13		13													13
Managers and foremen	1		1													1
Office clerks	1		1							1						

TABLE No. 2. CITY OF SAN FRANCISCO.

Wholesale Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Glass—Continued.																
Porters and packers	4		2	2								2	2			
Salesmen	2		2													2
Shipping clerks	1			1											1	
Totals	27		24	3						1		2	2	1	1	20
Groceries.	37	establishments.														
Bookkeepers	69		21	43	5					1	1	1	5	10	13	38
Bookkeepers (F.)	11	2	9								3		4		2	2
Buyers	9		2	7									1		1	7
Cashiers	16		2	11	3									1	1	14
Cashiers (F.)	3		3													3
Chemists	2		2											1		1
Coffee roasters	9		1	7	1					1			2	3	2	1
Collectors	9		1	6	2					1		1	3	3		1
Credit men	1			1												1
Engineers	7			1	6								1	4	1	1
Errand boys	22		1	16	5				5	8	9					
Managers and foremen	75		24	44	7							1		1	4	69
Office clerks	109		29	79	1					11	15	15	18	14	11	25
Office clerks (F.)	38	3	35							6	12	11	6	2		1
Packers (F.)	92		92							56	34	2				
Porters and packers	342		12	201	128		1			11	37	23	147	104	15	5
Printers	2		2							1					1	
Salesmen	319		134	175	10						1		16	26	15	261
Shipping clerks	55		4	43	8							1	8	16	9	21
Stenographers	4			4							1	1	1		1	
Stenographers (F.)	64	5	59							7	7	14	21	13	1	1
Stock clerks	12		5	7						1		3	1	2	3	2
Tea experts	1		1													1
Teamsters	26		2	17	7					7	1	6	3	4	4	1
Telephone girls	4		4							1	1	1	1			
Totals	1301	10	115	662	183		1		5	112	122	80	238	201	84	456

Hardware.	20	establishments.														
Bookkeepers	40		16	24						6	4	3	3	1	1	22
Bookkeepers (F.)	9	1	8									3	2	1	1	2
Cashiers	9		4	5								2				7
Cashiers (F.)	1		1												1	
Collectors	3		2	1						1				1	1	
Errand boys	37		4	33					26	8	2	1				
Managers and foremen	58		55	3												58
Mechanics	13		3	10								1	4	5	1	2
Office clerks	143		53	90					5	17	10	15	22	23	13	38
Office clerks (F.)	96		96						1	15	33	15	26	3	2	1
Order clerks	65		2	63					1	6	21	14	6	7	7	3
Porters and packers	150		10	126	14						6	20	68	42	11	3
Printers	2		2												1	1
Salesmen	215		157	58								1	7	4	14	189
Saleswomen	1		1													1
Stenographers	1		1											1		
Stenographers (F.)	73	1	72							8	15	16	22	9	2	1
Stock clerks	185		13	172					5	50	33	26	31	15	12	13
Teamsters	18		1	17								4	6	2	1	5
Telephone girls	5		5							2	2		1			
Totals	1124	2	506	602	14				38	113	126	121	198	114	68	346
Household Goods.	4	establishments.														
Bookkeepers	4		1	3										1	1	2
Bookkeepers (F.)	13		13							3	4	4	1		1	
Cabinet makers	3		3									1				2
Cashiers (F.)	9		9							6		3				
Collectors	2			2									1	1		
Engineers	2			2											1	1
Errand boys	2			2					1		1					
Managers and foremen	21			21									2	2	1	16
Mechanics	35		34	1								2	1	10	2	20
Office clerks	35			35					2	11	8	5	1	1	1	6
Office clerks (F.)	50		50						3	15	12	14	3	2	1	
Packers (F.)	7		7						5	2						
Porters and packers	42		2	38	2				7	2	9	7	14	1	1	1
Salesmen	43		9	34								1	7	2	4	29
Saleswomen	27		27							7	13	4	3			
Shipping clerks	4			4									2	1		1
Stenographers (F.)	30		30							18	3	6	2		1	
Stock clerks	30			30						7	10	5	2	5	1	
Teamsters	11			4	7						2	3	2	3	1	
Telephone girls	2		2									2				

TABLE No. 2. CITY OF SAN FRANCISCO.

Wholesale Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Household Goods—Continued.																
Tile setters	46		46									23				23
Window dressers	2			2						1						1
Totals	120		233	178	9				18	72	62	80	41	29	16	102
Importers.	6	establishments.														
Bookkeepers	6		4	2										1		5
Bookkeepers (F.)	5		5									2	2	1		
Decorators (F.)	3		3								1	1		1		
Errand boys	3		3							3						
Managers and foremen	5		5													5
Office clerks	1		1							1						
Office clerks (F.)	2		2										1		1	
Porters and packers	4		2	2								2	1	1		
Salesmen	19		17	2									2	1		16
Seamstresses	2		2										2			
Shipping clerks	2		2								1				1	
Stenographers (F.)	5		5								2	1		2		
Stock clerks	3		3											1		2
Teamsters	1			1												1
General help (F.)	5		5							4		1				
Totals	66		59	7						8	4	7	8	8	2	29
Iron, Steel, Wire, etc.	4	establishments.														
Bookkeepers	4		3	1											1	3
Errand boys	2		1	1						1		1				
Managers and foremen	4			4												4
Office clerks	3			3											1	2
Porters and packers	13		4	9									6	5	1	1
Salesmen	15		2	13										1		14
Shipping clerks	2			2											1	1
Stenographers (F.)	7		7								1	2	2		2	

Telephone girls	1		1							1						
Totals	51		18	33						2	1	3	8	6	6	25
Jewelry.	4	establishments.														
Bookkeepers	1		1													1
Cashiers	2		2													2
Errand boys	5		5						2	3						
Jewelers	2		2									1		1		
Managers and foremen	1		1													1
Office clerks	1		1										1			
Office clerks (F.)	3		3										2			1
Porters and packers	2		2								1					1
Salesmen	29		24	5								5	2	1	1	20
Shipping clerks	1		1												1	
Stenographers (F.)	3		3									1	1			1
Stock clerks	3		3								2			1		
Stock clerks (F.)	4		4								2		2			
Totals	57		52	5					2	3	5	7	8	3	2	27
Junk.	7	establishments.														
Bookkeepers	4		2	2								1			2	1
Bookkeepers (F.)	1		1												1	
Managers and foremen	2			2										1	1	
Office clerks	1			1									1			
Office clerks (F.)	1		1									1				
Salesmen	3		3													3
Shipping clerks	4				4							2				2
Stenographers (F.)	5		5								1		2	2		
Teamsters	7			1	6								3		4	
General help	108			29	79					4	16	57	28	2	1	
General help (F.)	40		40							20	14	6				
Totals	176		52	35	89					24	31	67	34	5	9	6
Leather.	6	establishments.														
Bookkeepers	5		2	3											3	2
Bookkeepers (F.)	5	2	3										1	2		2
Buyers	2			2												2
Errand boys	3			3						2	1					
Managers and foremen	6		3	2	1										2	4
Office clerks	4		1	3						1			1		2	
Office clerks (F.)	3		3								1	1			1	
Porters and packers	16		5	6	5					2		6	5	2	1	

TABLE No. 2. CITY OF SAN FRANCISCO.

Wholesale Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Leather—Continued.																
Salesmen	17		3	14									1		12	4
Shipping clerks	1			1											1	
Stenographers (F.)	6	2	4							1	1	1	1	2		
Stock clerks	1			1											1	
General help	12			12									10	2		
Totals	81	4	24	47	6					6	3	8	19	8	23	14
Liquors.	39	establishments.														
Bookkeepers	48	1	29	9	9								4	2	1	41
Bookkeepers (F.)	19	1	18								3	2	2	3	8	1
Bottlers	20		12	8							1	9	10			
Buyers	1		1													1
Cashiers	11	1	7	2	1								1			10
Cashiers (F.)	1		1												1	
Cellarmen	90		15	64	11							25	39	22	4	
Coopers	12		7	2	3							2	2		6	2
Engineers	4		1		3							1			1	2
Errand boys	5		2	2	1					3	1		1			
Managers and foremen	50	1	35	10	4								1		6	43
Office clerks	56		32	16	8					1	6	3	11	5	9	21
Office clerks (F.)	21		21							3	4	3	9	1	1	
Packers and labelers (F.)	69		69							40	23	6				
Porters and packers	103		55	46	2					1	9	17	35	26	5	10
Rectifiers	12		9	2	1									1	5	6
Salesmen	146	1	90	54	1										5	141
Shipping clerks	24		13	8	3							2	5	2	7	8
Stenographers	3		3								1				1	1
Stenographers (F.)	39	5	34							1	7	7	7	12	4	1
Stock clerks	2		1	1												2
Teamsters	17		6	7	4								2	6	4	5
General help	73			16	57						8	59	5	1		
Totals	826	10	461	247	108					49	63	136	134	81	68	295

Machinery and Implements.	16	establishments.														
Bookkeepers	13	-----	12	1	-----	-----	-----	-----	1	-----	-----	-----	1	2	1	8
Bookkeepers (F.)	4	1	3	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	2	1
Cashiers	3	-----	3	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	3
Errand boys	3	-----	3	-----	-----	-----	-----	-----	1	1	1	-----	-----	-----	-----	-----
Managers and foremen	10	-----	8	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	10
Mechanics	14	-----	4	10	-----	-----	-----	-----	-----	-----	-----	-----	5	2	7	-----
Office clerks	14	-----	12	2	-----	-----	-----	-----	-----	1	2	-----	3	3	1	4
Office clerks (F.)	9	2	7	-----	-----	-----	-----	-----	-----	-----	5	1	3	-----	-----	-----
Porters and packers	15	-----	9	2	4	-----	-----	-----	-----	-----	2	3	8	2	-----	-----
Salesmen	79	-----	75	4	-----	-----	-----	-----	-----	-----	1	-----	1	2	12	63
Shipping clerks	15	-----	10	5	-----	-----	-----	-----	-----	-----	2	2	3	3	3	2
Stenographers (F.)	35	3	32	-----	-----	-----	-----	-----	-----	2	3	10	17	3	-----	-----
Stock clerks	10	-----	2	8	-----	-----	-----	-----	-----	-----	-----	1	3	4	-----	2
Stock clerks (F.)	2	-----	2	-----	-----	-----	-----	-----	-----	-----	-----	2	-----	-----	-----	-----
General help	3	-----	3	-----	-----	-----	-----	-----	-----	-----	-----	-----	3	-----	-----	-----
Totals	229	6	185	34	4	-----	-----	-----	2	4	16	19	48	21	26	93
Manufacturers' Agents.	36	establishments.														
Bookkeepers	28	-----	21	7	-----	-----	-----	-----	-----	-----	2	1	-----	4	3	18
Bookkeepers (F.)	30	6	24	-----	-----	-----	-----	-----	-----	1	-----	4	6	9	4	6
Cashiers	7	-----	6	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	7
Cashiers (F.)	5	-----	5	-----	-----	-----	-----	-----	-----	-----	2	-----	-----	1	-----	2
Collectors	3	-----	3	-----	-----	-----	-----	-----	-----	-----	1	1	1	-----	-----	-----
Errand boys	16	-----	12	4	-----	-----	-----	-----	1	12	2	1	-----	-----	-----	-----
Managers and foremen	49	1	42	6	-----	-----	-----	-----	-----	-----	-----	-----	1	1	4	43
Mechanics	39	-----	37	2	-----	-----	-----	-----	-----	-----	1	-----	2	11	8	17
Office clerks	27	-----	26	1	-----	-----	-----	-----	-----	1	7	6	6	4	1	2
Office clerks (F.)	49	1	48	-----	-----	-----	-----	-----	-----	7	14	12	9	7	-----	-----
Porters and packers	59	-----	27	32	-----	-----	-----	-----	-----	2	8	19	24	4	1	1
Salesmen	161	1	158	2	-----	-----	-----	-----	-----	-----	4	1	3	2	27	124
Shipping clerks	26	-----	20	6	-----	-----	-----	-----	-----	-----	2	2	3	8	4	7
Stenographers	2	-----	2	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	1	-----
Stenographers (F.)	67	4	63	-----	-----	-----	-----	-----	-----	3	6	22	24	8	2	2
Stock clerks	40	2	18	20	-----	-----	-----	-----	-----	5	16	10	7	-----	1	1
Stock clerks (F.)	5	-----	5	-----	-----	-----	-----	-----	-----	1	-----	3	1	-----	-----	-----
Teamsters	2	-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	1
General help	7	-----	4	3	-----	-----	-----	-----	-----	-----	-----	3	4	-----	-----	-----
Totals	622	15	523	84	-----	-----	-----	-----	1	32	65	86	91	60	56	231

TABLE No. 2. CITY OF SAN FRANCISCO.

Wholesale Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Meats.	5	establishments.														
Bookkeepers	15			14	1								3	3	3	6
Bookkeepers (F.)	1		1										1			
Cashiers	1			1											1	
Managers and foremen	6			6											2	4
Meat cutters	17			5	12							1	2	2	10	2
Office clerks	1			1									1			
Porters and packers	40			40								10	15	15		
Salesmen	15		15												8	7
Shipping clerks	1				1										1	
Stenographers (F.)	4		4									3		1		
Teamsters	22			15	7								17	5		
General help (F.)	5		5								5					
Totals	128		25	82	21						5	14	39	26	25	19
Millinery.	10	establishments.														
Bookkeepers	7		1	6								1	2	1	1	2
Bookkeepers (F.)	5		5								1		2	1	1	
Cashiers	4		1	3												4
Cashiers (F.)	1		1								1					
Errand boys	14			14					8	5		1				
Makers (F.)	21		21						4	8	9					
Managers and foremen	9		2	7												9
Office clerks	2			2						1			1			
Office clerks (F.)	6		6							2	2	1	1			
Porters and packers	11			10		1				2		4	1	3	1	
Salesmen	67			67							4	4	5	5	6	43
Saleswomen	3		3								1	2				
Shipping clerks	4			4									1		2	1
Stenographers (F.)	5		5									3	1			1
Stock clerks	21		1	20						6	7	5	3			
Stock clerks (F.)	4		4						1	2		1				

Trimmers (F.)	14	------	14	------	------	------	------	------	1	5	4	------	1	------	3
Totals	198	------	64	133	------	1	------	------	14	31	29	22	18	10	11	63
Notions, Fancy Goods, Curios, etc.	11	establishments.														
Bookkeepers	10	------	2	8	------	------	------	------	------	------	------	1	------	1	1	7
Bookkeepers (F.)	7	------	7	------	------	------	------	------	------	------	------	4	2	1	------	------
Cashiers	2	------	------	2	------	------	------	------	------	------	------	------	------	------	------	2
Errand boys	5	------	1	4	------	------	------	------	1	4	------	------	------	------	------	------
Managers and foremen	2	------	------	1	1	------	------	------	------	------	------	------	------	------	------	2
Office clerks (F.)	2	------	2	------	------	------	------	------	------	------	1	1	------	------	------	------
Porters and packers	11	------	5	4	2	------	------	------	------	------	1	3	4	2	1	------
Salesmen	65	------	16	41	8	------	------	------	------	2	1	2	5	3	7	45
Saleswomen	5	------	5	------	------	------	------	------	------	1	------	2	1	1	------	------
Shipping clerks	6	------	1	3	2	------	------	------	------	------	1	------	2	1	1	1
Stenographers (F.)	10	------	10	------	------	------	------	------	------	2	------	4	3	1	------	------
Stock clerks	15	------	6	7	2	------	------	------	------	1	4	1	6	1	1	1
Stock clerks (F.)	2	------	2	------	------	------	------	------	------	------	------	2	------	------	------	------
Teamsters	1	------	------	1	------	------	------	------	------	------	------	------	1	------	------	------
Totals	143	------	57	71	15	------	------	------	1	10	8	20	24	11	11	58
Paints, Oils, Wall Paper, etc.	5	establishments.														
Bookkeepers	8	------	6	2	------	------	------	------	------	------	------	------	------	------	1	7
Bookkeepers (F.)	6	------	6	------	------	------	------	------	------	------	------	------	1	4	1	------
Cashiers (F.)	2	------	2	------	------	------	------	------	------	------	------	------	------	1	1	------
Collectors	1	------	1	------	------	------	------	------	------	------	------	------	------	------	1	------
Errand boys	5	------	3	2	------	------	------	------	------	3	2	------	------	------	------	------
Managers and foremen	7	------	4	3	------	------	------	------	------	------	------	------	------	------	------	7
Office clerks	11	------	6	5	------	------	------	------	------	------	------	------	1	4	2	4
Office clerks (F.)	8	------	8	------	------	------	------	------	1	1	1	3	1	1	------	------
Porters and packers	26	------	4	21	------	------	1	------	------	3	2	5	6	8	2	------
Salesmen	41	------	30	11	------	------	------	------	------	------	1	3	2	4	2	29
Shipping clerks	5	------	1	4	------	------	------	------	------	------	1	------	------	1	1	2
Stenographers (F.)	14	------	14	------	------	------	------	------	------	------	1	------	4	8	1	------
Stock clerks (F.)	1	------	1	------	------	------	------	------	------	------	1	------	------	------	------	------
Teamsters	6	------	------	2	4	------	------	------	------	------	------	------	3	1	2	------
Totals	141	------	86	50	4	------	1	------	1	7	9	11	18	32	14	49
Paper.	6	establishments.														
Bookkeepers	17	------	1	16	------	------	------	------	------	------	------	------	6	1	3	7
Bookkeepers (F.)	1	------	1	------	------	------	------	------	------	------	------	------	1	------	------	------
Cashiers	7	------	1	6	------	------	------	------	------	------	------	2	------	------	------	5
Collectors	5	------	------	5	------	------	------	------	------	------	------	------	1	2	1	1

TABLE No. 2. CITY OF SAN FRANCISCO.

Wholesale Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Paper—Continued.																
Errand boys	10	------	------	10	------	------	------	------	1	6	3	------	------	------	------	------
Managers and foremen	12	------	3	9	------	------	------	------	------	------	------	------	------	------	2	10
Office clerks	20	------	1	19	------	------	------	------	------	------	------	3	3	6	1	7
Office clerks (F.)	15	------	15	------	------	------	------	------	------	2	4	2	6	1	------	------
Paper cutters	5	------	------	5	------	------	------	------	------	------	------	------	3	------	2	------
Porters and packers	31	------	------	31	------	------	------	------	------	------	3	5	16	6	1	------
Salesmen	77	------	9	68	------	------	------	------	------	------	1	3	6	12	13	42
Shipping clerks	37	------	------	37	------	------	------	------	------	1	------	------	15	14	5	2
Stenographers (F.)	21	------	21	------	------	------	------	------	------	------	3	7	2	6	2	1
Stock clerks	49	------	------	49	------	------	------	------	------	1	5	7	27	8	------	1
Teamsters	9	------	------	9	------	------	------	------	------	------	------	4	2	2	1	------
General help	12	------	12	------	------	------	------	------	1	11	------	------	------	------	------	------
General help (F.)	8	------	8	------	------	------	------	------	------	------	4	2	1	------	1	------
Totals	336	------	72	264	------	------	------	------	2	21	23	35	89	58	32	76
Patterns, Dress.	5	establishments.														
Bookkeepers	2	------	2	------	------	------	------	------	------	------	------	1	------	------	1	------
Bookkeepers (F.)	1	------	1	------	------	------	------	------	------	------	1	------	------	------	------	------
Cashiers (F.)	1	------	1	------	------	------	------	------	------	------	------	------	1	------	------	------
Errand boys	3	------	3	------	------	------	------	------	------	3	------	------	------	------	------	------
Managers and foremen	2	------	2	------	------	------	------	------	------	------	------	------	1	------	------	1
Managers and forewomen	2	------	2	------	------	------	------	------	------	------	------	------	1	------	------	1
Office clerks (F.)	23	------	23	------	------	------	------	------	8	13	1	------	1	------	------	------
Salesmen	1	------	1	------	------	------	------	------	------	------	------	------	------	------	------	1
Shipping clerks	3	------	3	------	------	------	------	------	------	------	1	------	1	------	1	------
Stenographers (F.)	2	------	2	------	------	------	------	------	------	------	1	------	------	1	------	------
Stock clerks (F.)	25	------	25	------	------	------	------	------	11	13	1	------	------	------	------	------
Totals	65	------	65	------	------	------	------	------	19	29	5	1	5	1	2	3
Plumbing Supplies.	11	establishments.														
Bookkeepers	12	------	10	1	1	------	------	------	------	1	------	------	------	------	2	9
Bookkeepers (F.)	2	------	2	------	------	------	------	------	------	------	------	------	------	1	------	1

Cashiers	2	------	2	------	------	------	------	------	------	------	------	------	------	------	2
Cashiers (F.)	3	------	3	------	------	------	------	------	------	------	------	------	1	------	1	1
Collectors	2	------	1	1	------	------	------	------	------	------	1	1	------	------	------	------
Errand boys	4	------	4	------	------	------	------	------	------	4	------	------	------	------	------	------
Managers and foremen	24	------	19	4	1	------	------	------	------	------	------	------	------	------	------	24
Mechanics	25	------	18	6	1	------	------	------	------	------	10	1	9	1	3	1
Office clerks	104	------	77	20	7	------	------	------	1	9	10	8	24	21	12	19
Office clerks (F.)	23	------	23	------	------	------	------	------	------	------	5	8	9	1	------	------
Porters and packers	94	------	------	92	------	------	2	------	------	2	2	19	66	3	2	------
Salesmen	78	------	55	23	------	------	------	------	------	------	------	------	2	2	11	63
Shipping clerks	26	------	5	20	1	------	------	------	------	4	4	------	8	7	2	1
Stenographers	1	------	------	------	1	------	------	------	------	------	------	------	1	------	------	------
Stenographers (F.)	14	------	14	------	------	------	------	------	------	------	1	7	3	1	2	------
Stock clerks	31	------	31	------	------	------	------	------	------	1	5	------	14	10	1	------
Teamsters	26	------	19	6	1	------	------	------	------	------	1	2	2	9	11	1
Warehousemen	26	------	------	4	22	------	------	------	------	------	------	8	9	2	7	------
Totals	497	------	283	177	35	------	2	------	1	21	39	54	148	58	54	122
Rubber Goods.	6	establishments.														
Bookkeepers	6	------	6	------	------	------	------	------	------	------	------	------	------	3	------	3
Bookkeepers (F.)	3	------	3	------	------	------	------	------	------	------	------	------	------	1	------	2
Cashiers	4	------	4	------	------	------	------	------	------	------	------	------	1	------	1	2
Errand boys	2	------	2	------	------	------	------	------	------	1	1	------	------	------	------	------
Managers and foremen	6	------	6	------	------	------	------	------	------	------	------	------	------	------	------	6
Office clerks	32	------	32	------	------	------	------	------	------	------	4	13	4	1	4	6
Office clerks (F.)	4	------	4	------	------	------	------	------	------	------	------	1	2	------	------	1
Porters and packers	12	------	12	------	------	------	------	------	------	------	1	1	9	1	------	------
Salesmen	25	------	25	------	------	------	------	------	------	------	------	1	------	------	1	23
Shipping clerks	5	------	5	------	------	------	------	------	------	------	------	------	1	1	1	2
Stenographers (F.)	16	------	16	------	------	------	------	------	------	------	------	1	10	4	1	------
Stock clerks	8	------	8	------	------	------	------	------	------	------	------	------	1	3	1	3
Teamsters	2	------	2	------	------	------	------	------	------	------	------	------	1	1	------	------
Totals	125	------	125	------	------	------	------	------	------	1	6	17	29	15	9	48
Safes, Scales, etc.	7	establishments.														
Bookkeepers	6	1	5	------	------	------	------	------	------	------	------	------	------	4	1	1
Bookkeepers (F.)	1	------	1	------	------	------	------	------	------	------	------	------	------	------	1	------
Cashiers	3	1	2	------	------	------	------	------	------	------	------	------	------	------	1	2
Collectors	2	------	2	------	------	------	------	------	------	------	------	------	1	1	------	------
Managers and foremen	6	1	5	------	------	------	------	------	------	------	------	------	------	------	------	6
Mechanics	36	------	36	------	------	------	------	------	------	------	1	2	2	3	23	5
Office clerks	2	------	2	------	------	------	------	------	------	------	------	------	1	------	------	1
Porters and packers	7	------	7	------	------	------	------	------	1	------	------	------	3	3	------	------

TABLE No. 2. CITY OF SAN FRANCISCO.

Wholesale Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Safes, Scales, etc.—Continued.			ablis	hmer	ts.											
Salesmen	43		43									1	2	4	3	33
Shipping clerks	3		3									1		2		
Stenographers	2		2												1	1
Stenographers (F.)	10	2	8								1	1	7		1	
Stock clerks	2		2									1		1		
Totals	123	5	118						1		2	6	16	18	31	49
Stationery, Books and Drawing Instruments.	10	est	ablis	hmen	ts.											
Blue print makers	3		1	2						1			2			
Blue print makers (F.)	1		1										1			
Bookkeepers	12		9	3							1		3	4	4	
Bookkeepers (F.)	8		8									3	3			2
Buyers	1			1												1
Cashiers	5		5												1	4
Cashiers (F.)	3		3									1	1		1	
Collectors	1		1											1		
Engravers	3			3							2					1
Errand boys	15		7	8					1	12	2					
Managers and foremen	19		11	8											2	17
Office clerks	26		8	18							2	10	7	2		5
Office clerks (F.)	15		15								5	6	3	1		
Picture frame makers	13			13									4	3	6	
Porters and packers	32	1	3	27	1				1	1	5	8	5	11	1	
Salesmen	66		16	50							3	2	8	9	6	38
Saleswomen	4		4									2	1			1
Shipping clerks	11		5	6						1	2	2	1	2	3	
Stenographers (F.)	28		28								5	12	8	3		
Stock clerks	11		2	9						3	2	4		1		1
Teamsters	11			11								6	3	1	1	
Totals	288	1	127	159	1				2	18	29	56	50	38	25	70

Miscellaneous.	11	establishments.														
Bookkeepers	10		5	5								1	1	3	1	4
Bookkeepers (F.)	5		5								1				1	3
Cashiers	4		2	2												4
Cashiers (F.)	1		1													1
Collectors	1		1											1		
Errand boys	6		4	2						6						
Managers and foremen	21		11	10											1	20
Office clerks	13		4	9							1		2	4	5	1
Office clerks (F.)	8	1	7							3	1	2	1			1
Packers and labelers (F.)	40		40						13	23	2		1	1		
Porters and packers	42		31	10	1				2	3	7	6	20	3	1	
Printers	1		1													1
Salesmen	69		48	18	3							3	5	14	6	41
Saleswomen	2		2							1	1					
Shipping clerks	9		6	3								1	2	2	2	2
Stenographers (F.)	22		22							1	1	3	10	6	1	
Stock clerks	6		4	2							4		1	1		
Stock clerks (F.)	2		2								2					
Teamsters	1				1										1	
General help	5		1	4									4			1
General help (F.)	9		9							8	1					
Totals	277	1	206	65	5				15	45	21	16	47	35	19	79

TABLE No. 3. CITY OF SAN FRANCISCO.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Automobiles and Supplies.	42	establishments.														
Bookkeepers	38	3	32	3					1		1	2	7	9	6	12
Bookkeepers (F.)	22	3	19								2	5	6	2	1	6
Buyers	2			2												2
Cashiers	8	1	5	2										1	1	6
Cashiers (F.)	6		6									1		2	1	2
Demonstrators	10		9	1									2	2	2	4
Errand boys	8		6	2					3	4		1				
Managers and foremen	70	3	51	14	2									1	4	65
Machinists	50		35	15										9	27	14
Machinists, apprentices	4		2	2						3	1					
Machinists, helpers	36		31	5						6	4	5	21			
Mechanics	141		63	62	16					6	12	16	8	27	30	42
Office clerks	22	2	17	3							2	3	6	6	2	3
Office clerks (F.)	23	1	22							6	5	7	3	1	1	
Porters and packers	40		28	12						6	8	11	9	6		
Salesmen	153	8	102	43							1		4	8	15	125
Shipping clerks	29	1	22	6						2	3	5	6	6	5	2
Stenographers	2		2												2	
Stenographers (F.)	68	14	54							3	8	17	32	4	4	
Stock clerks	32		21	11							8	4	7	6	2	5
Watchmen	2						2								2	
General help	70		43	27						1	10	12	14	12	16	5
Totals	836	36	570	210	18		2		4	37	65	89	125	102	121	293
Boots and Shoes.	9	establishments.														
Bookkeepers	6			6									1			5
Bookkeepers (F.)	4		4									1		2		1
Cashiers (F.)	12		12							3	4	5				
Collectors	1			1									1			
Errand boys	22		12	10					11	10	1					
Managers and foremen	3			3												3
Office clerks	1			1							1					
Office clerks (F.)	9		9							3	4	2				

Porters and packers	11			11							3	5	1	2		
Salesmen	175			175								1	6	28	59	81
Saleswomen	8		8						1	6	1					
Shipping clerks	6			6								2	1	1		2
Shoemakers	1			1										1		
Stenographers (F.)	6		6							1	2	1	2			
Stock clerks	17			17						5	4	3	3	2		
Wrappers	8			8					1	2	2	1	1	1		
Wrappers (F.)	5		5						1	2	1	1				
Totals	295		56	239					14	32	23	22	16	37	59	92
Butcher Shops.	15	establishments.														
Bookkeepers	3		1		2								1			2
Bookkeepers (F.)	10	2	8								1	1	3	4		1
Cashiers (F.)	3		3								2	1				
Coolermen	2				2										2	
Managers and foremen	3				3											3
Meat cutters	53		3		50									22	31	
Porters	4		1	1	1		1				1	2	1			
Salesmen	9				9								1	3		5
Saleswomen	2		2								1		1			
Sausage makers	6				6									4	2	
Teamsters	29		1	4	24						2	4	15	8		
Wrappers	2				2						1		1			
Wrappers (F.)	5		5							2	3					
Totals	131	2	24	5	99		1			2	11	8	23	41	35	11
Clothing and Furnishings.	54	establishments.														
Alteration hands	11		9	2									1	5	2	3
Alteration hands (F.)	430		430							19	95	231	23	33	19	10
Bookkeepers	20		2	16	1	1						1	1	2	1	15
Bookkeepers (F.)	37		37								5	7	11	5	3	6
Bushelmen	50			50									1	12	12	25
Cashiers	2			2												2
Cashiers (F.)	40		40						5	13	9	2	4	5	1	1
Carpet layers	3		3								2					1
Collectors	18		11	7						2			3	10	3	
Errand boys	83	9	39	35					30	50	2	1				
Errand girls	15		15						15							
Managers and foremen	41		13	28								1	2		2	36
Managers and forewomen	13		13								1	3	1		2	6
Millinery makers and trimmers (F.)	11		11					1	2	1	2	1			1	3
Office clerks	4		2	2						1	1			1		1

TABLE No. 3. CITY OF SAN FRANCISCO.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clothing and Furnishings—Continued.																
Office clerks (F.)	20	------	20	------	------	------	------	------	1	4	8	2	5	------	------	------
Porters and packers	49	------	10	38	1	------	------	------	1	4	4	8	24	6	1	1
Pressers	11	------	9	2	------	------	------	------	------	------	------	------	2	5	4	------
Salesmen	176	------	3	167	4	2	------	------	1	------	3	4	25	27	23	93
Saleswomen	397	------	397	------	------	------	------	------	16	45	80	105	56	31	33	31
Seamstresses	32	------	32	------	------	------	------	------	------	3	3	19	2	4	1	------
Shipping clerks	23	------	5	18	------	------	------	------	------	1	8	6	5	2	------	1
Stenographers (F.)	19	------	19	------	------	------	------	------	------	3	7	6	2	1	------	------
Stock clerks	23	------	2	21	------	------	------	------	------	6	5	6	3	2	------	1
Stock clerks (F.)	27	------	27	------	------	------	------	------	12	11	2	2	------	------	------	------
Tailors	55	------	3	52	------	------	------	------	------	------	------	2	------	17	24	12
Tailors (F.)	13	------	13	------	------	------	------	------	1	1	4	4	2	1	------	------
Teamsters	4	------	------	4	------	------	------	------	------	------	------	------	4	------	------	------
Window dressers	8	------	1	7	------	------	------	------	------	2	------	------	1	------	------	5
General help	7	------	1	5	1	------	------	------	------	------	------	3	------	------	------	4
General help (F.)	2	------	2	------	------	------	------	------	------	2	------	------	------	------	------	------
Totals	1644	9	1169	456	7	3	------	1	84	168	241	414	178	169	132	257
Confectionery.	4	establishments.														
Cashiers (F.)	2	------	2	------	------	------	------	------	------	------	1	1	------	------	------	------
Errand boys	2	------	2	------	------	------	------	------	------	2	------	------	------	------	------	------
Kitchen help (F.)	8	1	7	------	------	------	------	------	2	1	5	------	------	------	------	------
Managers and foremen	2	------	------	------	2	------	------	------	------	------	------	------	------	------	------	2
Porters and packers	5	------	------	------	5	------	------	------	------	------	------	------	------	5	------	------
Salesmen	11	------	------	11	------	------	------	------	------	1	5	3	1	1	------	------
Saleswomen	109	------	109	------	------	------	------	------	------	46	50	9	1	3	------	------
Stock clerks (F.)	4	------	4	------	------	------	------	------	------	4	------	------	------	------	------	------
Totals	143	1	124	11	7	------	------	------	2	54	61	13	2	9	------	2
Department Stores.	10	establishments.														
Art goods workers (F.)	11	------	11	------	------	------	------	------	1	2	4	2	------	1	------	1
Alteration hands (F.)	185	------	185	------	------	------	------	------	------	7	33	104	26	4	9	2

Bookkeepers	14		14						2		1	2	3	1	1	4
Bookkeepers (F.)	22		22						2	4	8	3	2			3
Cashiers	2		2											1		1
Cashiers (F.)	65		65						14	34	10	2	3			2
Collectors	2		2								1					1
Engineers	4		4											1	1	2
Errand boys	61		19	42				2	20	39						
Errand girls	57		57					29	26	2						
Managers and foremen	170		98	72							1	2	14	10	11	132
Managers and forewomen	30		30									1	2	5	5	17
Mechanics	11		3	8								1	3		3	4
Millinery workers (F.)	46		46					3	7	14	10	7	1		1	3
Office clerks	96		33	63					2	21	12	12	25	7	3	14
Office clerks (F.)	166		166					1	21	55	47	24	14	3	1	
Porters and packers	160		103	55			2		1	22	15	40	60	12	6	4
Pressers	2		2											1		1
Printers	4			4								1			2	1
Salesmen	288		130	155		3			1	4	14	38	98	56	55	22
Saleswomen	1078		1078					3	103	390	291	100	98	37	32	24
Seamstresses	50		50					4		14	10	11	9	1	1	
Shipping clerks	52		16	36						5	7	10	17	5	5	3
Stenographers (F.)	15		15						1		2	2	5	3	2	
Stock clerks	106		49	57				1	9	70	12	6	6	1		1
Stock clerks (F.)	32		32						22	10						
Tailors	1			1											1	
Teamsters	33		6	27									7	17	5	4
Telephone girls	8		8							3	4	1				
Window dressers	7		4	3						1	1	2			1	2
Wrappers	35		10	25					1	13	9	3	6	3		
Wrappers (F.)	133		133						87	46						
General help	36		12	24						3	2		8	5	1	17
General help (F.)	203		203						13	36	41	43	45	12	12	1
Restaurant department:																
Cooks	5		5							1	3					1
Soda dispensers	5			5							1	1	2	1		
Waitresses	59	11	48						35	22	2					
General help	29			29						3	17	1	1	5		2
Totals	3283	11	2661	606		3	2	43	368	821	558	419	455	192	158	269
Drug Stores.	21	establishments.														
Bookkeepers	4		4										3		1	
Bookkeepers (F.)	3		3										2		1	
Cashiers (F.)	9		9								4	3	2			

TABLE No. 3. CITY OF SAN FRANCISCO.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Drug Stores—Continued.																
Errand boys	74	12	21	41				2	25	43	1	2	1			
Drug clerks	111	1	1		109						2	2	5	8	31	63
Drug clerks, apprentices	7	6		1					1	3	1	1		1		
Laboratory help	3	2		1						2			1			
Laboratory help (F.)	5		5							1	4					
Managers and foremen	10				10											10
Packers and labelers (F.)	6		6							4	2					
Porters and packers	16	1		13	2					1	1	9	5			
Saleswomen	28		28								1	14	11	1	1	
Soda dispensers	2			2						1						1
Stenographers (F.)	3		3								1	1	1			
Stock clerks	9		9						1	1	1	2	2		1	1
Stock clerks (F.)	3		3							1	1		1			
Telephone girls	3		3								2	1				
Window dressers	2		2							1						1
Totals	298	22	97	58	121			2	27	58	21	35	34	10	35	76
Dry Goods.	7	establishments.														
Alteration hands	3		3												2	1
Alteration hands (F.)	86		86						4	3	14	50	7	6	1	1
Bookkeepers	13		10	3								2			1	10
Bookkeepers (F.)	11		11							1	1	4	4			1
Cashiers	6		4	2							3				1	2
Cashiers (F.)	9		9							2	4		1	1		1
Collectors	2		2											1	1	
Errand boys	68	1	23	44					43	25						
Managers and foremen	11		11												4	7
Office clerks	14		2	12						2	1	4	3	2	1	1
Office clerks (F.)	16		16							7	3	3	2	1		
Porters and packers	31		30	1							2	20	5	3	1	
Salesmen	209		80	129						4	27	11	47	38	26	56
Saleswomen	259		259							34	44	77	43	24	21	16
Shipping clerks	4		4								1	1		1	1	

Stenographers (F.)	6	------	6	------	------	------	------	------	------	------	1	3	2	------	------	------
Stock clerks	28	------	11	17	------	------	------	------	------	24	2	2	------	------	------	------
Stock clerks (F.)	15	------	15	------	------	------	------	------	------	12	1	2	------	------	------	------
Teamsters	3	------	3	------	------	------	------	------	------	------	------	1	2	------	------	------
Telephone girls	2	------	2	------	------	------	------	------	------	1	1	------	------	------	------	------
Window dressers	5	------	4	1	------	------	------	------	------	------	2	------	------	------	------	3
Wrappers	6	------	6	------	------	------	------	------	------	3	3	------	------	------	------	------
Wrappers (F.)	19	------	19	------	------	------	------	------	12	6	------	1	------	------	------	------
General help	19	------	19	------	------	------	------	------	------	------	------	2	------	------	1	16
General help (F.)	121	------	121	------	------	------	------	------	19	11	18	54	6	2	8	3
Totals	966	1	756	209	------	------	------	------	78	135	128	237	122	79	69	118
Florists.	4	establishments.														
Bookkeepers (F.)	3	1	2	------	------	------	------	------	------	------	1	------	1	1	------	------
Errand boys	5	------	------	5	------	------	------	------	------	------	4	1	------	------	------	------
Salesmen	20	------	8	12	------	------	------	------	------	------	------	------	2	2	3	13
Saleswomen	2	------	2	------	------	------	------	------	------	------	------	------	------	2	------	------
Teamsters	2	------	1	1	------	------	------	------	------	------	------	------	1	------	1	------
General help	6	------	4	2	------	------	------	------	------	------	------	1	5	------	------	------
Totals	38	1	17	20	------	------	------	------	------	------	5	2	9	5	4	13
Furniture.	21	establishments.														
Bookkeepers	18	------	7	11	------	------	------	------	------	------	------	------	1	3	2	12
Bookkeepers (F.)	10	------	10	------	------	------	------	------	------	1	------	------	2	2	3	2
Cashiers	6	------	1	5	------	------	------	------	------	------	------	------	1	1	------	4
Cashiers (F.)	11	------	11	------	------	------	------	------	------	------	1	2	4	1	1	2
Carpet layers	29	------	17	12	------	------	------	------	------	------	------	2	1	------	------	26
Cabinet makers	25	------	22	3	------	------	------	------	------	------	------	------	1	3	2	19
Collectors	30	------	12	18	------	------	------	------	------	------	------	1	4	15	5	5
Drapery hangers	6	------	6	------	------	------	------	------	------	------	------	------	------	------	2	4
Drapery hangers, apprentices	3	------	3	------	------	------	------	------	------	2	1	------	------	------	------	------
Errand boys	12	------	4	8	------	------	------	------	1	10	1	------	------	------	------	------
Furniture finishers	38	------	36	2	------	------	------	------	------	------	1	2	3	2	8	22
Furniture handlers	4	------	4	------	------	------	------	------	------	------	------	------	------	4	------	------
Managers and foremen	49	------	31	18	------	------	------	------	------	------	------	------	------	------	2	47
Mechanics	34	------	25	9	------	------	------	------	------	2	3	1	4	2	14	8
Office clerks	15	------	3	12	------	------	------	------	------	6	1	3	1	------	3	1
Office clerks (F.)	16	------	16	------	------	------	------	------	------	1	2	6	1	4	1	1
Porters and packers	99	------	46	47	6	------	------	------	------	3	2	22	26	34	9	3
Salesmen	152	------	35	117	------	------	------	------	------	------	1	2	8	8	9	121
Saleswomen	5	------	5	------	------	------	------	------	------	------	------	1	------	2	------	2
Shade hangers	4	------	4	------	------	------	------	------	------	------	------	------	------	------	------	4
Shade makers	1	------	1	------	------	------	------	------	------	------	------	------	1	------	------	------

TABLE No. 3. CITY OF SAN FRANCISCO.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Furniture—Continued.																
Shade makers (F.)	2		2							1	1					
Shipping clerks	22		9	13								1		4	6	11
Stenographers	2		1	1										2		
Stenographers (F.)	33		33							1	8	9	8	6	1	
Stock clerks	36		7	29						10	6	6	2	4	4	4
Stock clerks (F.)	1		1						1							
Teamsters	42		18	24								5	10	15	6	6
Telephone girls	3		3								2		1			
Upholsterers	15		15										1			14
Warehousemen	8		8										7	1		
Watchmen	6		1			2	3					1	5			
Window dressers	1			1												1
General help (F.)	53		53						1	1	8	30	10	2	1	
Totals	791		450	330	6	2	3		3	38	38	91	102	115	79	322
Groceries.	5	establishments.														
Bakers	1			1												1
Bookkeepers	7			7								1	3		1	2
Bookkeepers (F.)	3		3							1			1	1		
Cashiers	2			2												2
Cashiers (F.)	6		6								4	1		1		
Collectors	3			3									2		1	
Drivers	31			26	5								10	20	1	
Errand boys	15			15						15						
Managers and foremen	9			9												9
Office clerks	5			5						2			1		1	1
Office clerks (F.)	9		9								5	4				
Porters and packers	10			10								2	7	1		
Salesmen	53	1		47	5						4	1	8	14	7	19
Saleswomen	12		12								6	5	1			
Shipping clerks	4			4									1			3
Stenographers (F.)	7		7								3	2	1	1		
Stock clerks	21			18	3						5	4	2	5	1	4

Telephone girls	1		1									1			
Totals	199	1	38	147	13					18	27	21	37	43	12	41
Hardware.	11	establishments.													
Bookkeepers	14		4	10									1	1	2	10
Bookkeepers (F.)	1		1												1	
Cashiers	3			3											1	2
Collectors	5			4	1						1		2	1		1
Errand boys	10		1	9					3	7						
Fixture hangers	3		3													3
Managers and foremen	8			8												8
Office clerks	25		2	23							4		4	1	7	9
Office clerks (F.)	13	1	12							1	5	5	2			
Porters and packers	32		6	12	14					1	4	2	20	4	1	
Salesmen	85		9	69	7						5	3	11	17	10	39
Saleswomen	6		6								1	5				
Shipping clerks	12		1	11							1		5		4	2
Stenographers (F.)	14	1	13							1	2	7	3	1		
Stock clerks	34			34						5	6	2	18	2	1	
Teamsters	14		1	11	2							2	7	1	3	1
Tile setters	6		6									3				3
General help	11		9	2							4	1	2	2	2	
Totals	296	2	74	196	24				3	15	33	30	75	30	32	78
Household Goods, Crockery, Glassware, etc.	2	establishments.													
Bookkeepers	1			1											1	
Errand boys	2			1	1					1	1					
Porters and packers	2				2								1		1	
Salesmen	6		4	2						4						2
Saleswomen	1		1									1				
Stenographers (F.)	1		1								1					
Stock clerks	2			2										1		1
Totals	15		6	6	3					5	2	1	1	1	2	3
Jewelry.	6	establishments.													
Bookkeepers	9		7	2								1	1		1	6
Bookkeepers (F.)	3		3										2			1
Designers	7			7									1			6
Designers (F.)	1		1									1				
Engravers	8		3	5											1	7
Errand boys	37		1	36					16	21						
Managers and foremen	9			9												9

TABLE No. 3. CITY OF SAN FRANCISCO.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Jewelry—Continued.																
Office clerks	12		3	9						1			1	2	4	4
Office clerks (F.)	17		17							1	4	6	3	2	1	
Polishers	2		1	1											2	
Porters and packers	13		10	3								3	5	5		
Salesmen	104		13	91							3	10	2	10	19	60
Saleswomen	4		4								1	1		1	1	
Shipping clerks	18			18						6		7	3		1	1
Stenographers (F.)	3		3									3				
Stock clerks	7			7						5					1	1
Teamsters	8			8					3	1			2		1	1
Watchmakers	6		1	5										1		5
Totals	268		67	201					19	35	8	32	20	21	32	101
Millinery.	24	establishments.														
Bookkeepers (F.)	4		4								1	1		1		1
Cashiers (F.)	3		3							2	1					
Errand boys	10	3	5	2				1	3	5		1				
Errand girls	2		2						2							
Furriers	1			1												1
Makers (F.)	113		113						12	30	25	27	13	5	1	
Managers and foremen	2		1	1												2
Managers and forewomen	2		2										1		1	
Porters and packers	4	1		3					1	2			1			
Saleswomen	155		155						9	17	22	37	42	21	5	2
Shipping clerks (F.)	1		1							1						
Stock clerks (F.)	2		2						1	1						
Trimmers (F.)	42		42								1		3	11	9	18
Trimmers, apprentices (F.)	15		15					12	3							
Totals	356	4	345	7				13	31	58	50	66	60	38	16	24

Music, Musical Instruments, etc.	11	establishments.														
Bookkeepers	23			21	2							2	4	3	4	10
Bookkeepers (F.)	5		5									2		1	1	1
Cashiers	5		1	4										2	1	2
Cashiers (F.)	11		11								3	2	4	1		1
Collectors	10			10							1	1	3		1	4
Errand boys	18		1	17					6	7	5					
Managers and foremen	30		8	22												30
Office clerks	21			21						3	8	1	1		1	7
Office clerks (F.)	23		23							1	4	6	5	1		6
Porters	24		1	23						1	3	7	7	4	2	
Repair men, tuners, etc.	88		30	58						2	4	5	8	12	27	30
Salesmen	84		11	73							4	8	8	5	7	52
Saleswomen	6		6							1	3		1			1
Shipping clerks	6			6							1	2		1	2	
Stenographers (F.)	32	1	31							2	12	6	8	3	1	
Stock clerks	12		1	11							1	5	3	1	1	1
Stock clerks (F.)	1		1											1		
Teamsters	17		10	7										4	8	5
Window dressers	1			1												1
Totals	417	1	140	274	2				6	17	49	47	52	39	56	151
Stationery, Books and Drawing Instruments.	9	establishments.														
Bookkeepers	6		3	3										1	2	3
Bookkeepers (F.)	9		9								2	2	2	2	1	
Cashiers (F.)	3		3							1			2			
Card tinters (F.)	2		2							1			1			
Compositors	2		2												1	1
Die stampers	1		1								1					
Errand boys	12		3	9					4	7	1					
Managers and foremen	3		1	2											1	2
Office clerks (F.)	6		6								3	1	2			
Porters and packers	9		2	7						4	2	1	1	1		
Salesmen	40		8	32								7	5	3	8	17
Saleswomen	19		19							2	7	7	1		2	
Shipping clerks	6		3	3							1	1	4			
Stenographers (F.)	10		10								2	2	6			
Stock clerks	8			8							4	4				
Totals	136		72	64					4	15	23	25	24	7	15	23

TABLE No. 3. CITY OF SAN FRANCISCO.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Miscellaneous.	10	establishments.														
Bookkeepers	9		7	2								1	1	3	1	3
Bookkeepers (F.)	5		5								1	1		2		1
Cashiers	2			2												2
Cashiers (F.)	2		2									1		1		
Collectors	5		5										5			
Electricians	2		2												2	
Electricians, apprentices	2		2							1	1					
Errand boys	7		2	5					1	6						
Janitresses	1		1							1						
Machinists	1		1													1
Managers and foremen	10		6	4									1			9
Managers and forewomen	1		1												1	
Office clerks (F.)	3		3									3				
Picture film repair men	17		17								16		1			
Picture frame makers	7			7										3	4	
Porters and packers	2			2						1				1		
Salesmen	21		7	14								2	7	1	2	9
Saleswomen	8		8								2	5				1
Shipping clerks	5		3	2								2	1	1	1	
Solicitors	12		12										12			
Stenographers (F.)	7		7								3	2	2			
Stock clerks	6		3	3							4	2				
Teamsters	2		1	1								2				
Totals	137		95	42					1	9	27	21	30	12	11	26

TABLE No. 4. CITY OF SAN FRANCISCO.

Miscellaneous Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Feed and Fuel.	6	establishments.														
Bookkeepers	5	1		1	3										1	4
Cashiers	2	1		1												2
Collectors	6	1		2	3									3		3
Electricians	1			1											1	
Engineers	2			2												2
Errand boys	1	1								1						
Firemen	1			1											1	
Managers and foremen	7			4	3									1	1	5
Salesmen	7	6		1										1		6
Stablemen	7			5	1		1							6		1
Stenographers (F.)	4	2	2								1	2	1			
Teamsters	43			12	18	13								38	5	
Watchmen	2						2						1			1
Weighers	2			2											1	1
General help	46			35	11								14	32		
Totals	136	12	2	67	39	13	3			1	1	2	16	81	10	25
Insurance Offices.	14	establishments.														
Bookkeepers	56	33	23									3	1	2	8	42
Bookkeepers (F.)	11	7	4								1		2	3	4	1
Cashiers	19	7	12											2	1	16
Chauffeurs	2	1	1													2
Collectors	5	2	3												1	4
Errand boys	16	8	8						2	8	5	1				
Inspectors	13	13														13
Managers and foremen	34	18	16													34
Office clerks	235	75	160							17	20	20	18	21	27	112
Office clerks (F.)	108	99	9							38	18	9	18	11	4	10
Porters and packers	16		3	13							2	3	6	4	1	
Shipping clerks	2		2								1		1			
Solicitors	38	10	28													38
Stenographers (F.)	115	43	72							1	10	21	29	28	13	13

TABLE No. 4. CITY OF SAN FRANCISCO.

Miscellaneous Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Insurance Offices—Continued.																
Special agents	23		23													23
General help	3		2	1										1		2
Totals	696	316	366	14					2	64	57	57	75	72	59	310
Lumber and Shipping.	14	establishments.														
Bookkeepers	15		10	4	1									1		14
Lumber hands	133		1	132								3	10	20	40	60
Managers and foremen	13			9	3		1								1	12
Office clerks	6		1	5						1			2			3
Office clerks (F.)	4	3	1								1	1	2			
Salesmen	12		2	10												12
Stenographers (F.)	10	2	8									2	2	2	2	2
Tallymen	32		5	27								1	1		28	2
Teamsters	45			14	31								5	12	22	6
Watchmen	3					1	2						2		1	
General help	12			9	3								1	8	3	
Totals	285	5	28	210	38	1	3			1	1	7	25	43	97	111
Milk Depots.	3	establishments.														
Bookkeepers	1			1												1
Bookkeepers (F.)	3		3							1		1		1		
Can washers	10		5	5									5	4	1	
Engineers	1			1											1	
Managers and foremen	4			4										2	1	1
Office clerks (F.)	1		1							1						
Stablemen	3			1	2										3	
Teamsters	36		9	27										21	15	
General help	3			3							1		2			
Totals	62		18	42	2					2	1	1	7	28	21	2
Offices.	6	establishments.														
Bookkeepers	3		3													3

Bookkeepers (F.)	2	-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	2	-----	-----	-----
Cashiers	1	-----	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
Cashiers (F.)	2	-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	2	-----	-----	-----
Collectors	8	-----	8	-----	-----	-----	-----	-----	-----	-----	-----	-----	3	3	-----	2
Errand boys	9	-----	9	-----	-----	-----	-----	-----	1	6	1	1	-----	-----	-----	-----
Managers and foremen	3	-----	3	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	3
Office clerks	14	-----	14	-----	-----	-----	-----	-----	-----	-----	1	1	5	2	2	3
Office clerks (F.)	62	-----	62	-----	-----	-----	-----	-----	-----	29	26	6	-----	1	-----	-----
Porters and packers	1	-----	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	-----
Stenographers (F.)	5	1	4	-----	-----	-----	-----	-----	-----	-----	-----	1	3	1	-----	-----
Totals	110	1	107	2	-----	-----	-----	-----	1	35	28	9	16	7	2	12
Teaming, Livery and Storage.	43	establishments.														
Blacksmiths	16	-----	-----	9	7	-----	-----	-----	-----	-----	1	-----	2	1	4	8
Bookkeepers	33	-----	19	6	8	-----	-----	-----	-----	-----	-----	-----	7	3	6	17
Bookkeepers (F.)	12	1	11	-----	-----	-----	-----	-----	-----	1	1	2	2	5	-----	1
Chauffeurs	8	-----	-----	-----	8	-----	-----	-----	-----	-----	-----	-----	-----	-----	8	-----
Collectors	2	-----	-----	-----	2	-----	-----	-----	-----	-----	-----	-----	-----	1	1	-----
Delivery drivers	138	-----	2	16	119	1	-----	-----	-----	-----	1	21	17	57	41	1
Errand boys	7	2	3	2	-----	-----	-----	-----	3	2	2	-----	-----	-----	-----	-----
Harness washers	9	1	1	2	1	1	3	-----	-----	-----	-----	-----	-----	4	4	1
Managers and foremen	72	-----	8	9	49	-----	6	-----	-----	-----	-----	1	5	13	53	-----
Office clerks	18	-----	7	2	9	-----	-----	-----	-----	-----	-----	-----	5	2	8	3
Office clerks (F.)	8	1	7	-----	-----	-----	-----	-----	-----	-----	1	2	3	2	-----	-----
Painters	3	-----	-----	-----	3	-----	-----	-----	-----	-----	-----	-----	3	-----	-----	-----
Porters and packers	2	-----	-----	-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	2	-----
Solicitors	2	-----	-----	-----	2	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	1
Stablemen	119	-----	6	18	88	1	6	-----	-----	-----	-----	1	25	47	44	2
Stenographers (F.)	6	-----	6	-----	-----	-----	-----	-----	-----	-----	-----	1	3	1	1	-----
Teamsters	405	-----	2	12	388	3	-----	-----	-----	-----	-----	1	53	187	155	9
Wagon and buggy washers	10	1	2	4	2	-----	1	-----	-----	-----	-----	-----	-----	3	5	2
Warehousemen	183	-----	1	76	106	-----	-----	-----	-----	-----	-----	2	117	59	3	2
Watchmen	5	-----	-----	-----	1	-----	4	-----	-----	-----	-----	-----	4	-----	1	-----
General help	3	-----	-----	-----	3	-----	-----	-----	-----	-----	-----	-----	-----	2	1	-----
Totals	1061	6	75	156	798	6	20	-----	3	3	6	31	246	388	337	47
General.	7	establishments.														
Artists (F.)	2	-----	2	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	-----	-----	1
Bill posters	35	-----	35	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	15	20
Bookkeepers	1	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	-----
Carpenters	13	-----	13	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	13	-----
Carpet layers	5	-----	-----	5	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	5
Cashiers (F.)	4	-----	4	-----	-----	-----	-----	-----	-----	-----	1	3	-----	-----	-----	-----

TABLE No. 4. CITY OF SAN FRANCISCO.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
General—Continued.																
Engineers	5			5										1	3	1
Managers and foremen	6		6											1		5
Office clerks (F.)	11		11								11					
Office clerks	7		5				2				2	1	1	1		2
Salesmen	6		6													6
Sign painters	38		38												12	26
Stablemen	4		4												4	
Stenographers (F.)	6		6									3	3			
Teamsters	2		1		1								1			1
General help	101		15	15	61	10					18	42	29	9		3
General help (F.)	12		12							5	6		1			
Totals	258		159	25	62	10	2			5	39	49	35	13	47	70

TABLE No. 5. CITY OF SAN FRANCISCO.

Summary of all Establishments. Hours of Labor and Wages. (Tabulated by industry.)

INDUSTRY.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing.																
Automobile accessories	70	------	33	37	------	------	------	------	------	4	2	9	7	14	21	13
Awnings, tents, etc.	204	------	126	77	1	------	------	------	10	60	32	25	21	15	25	16
Bags, paper and burlap	213	13	152	44	4	------	------	------	------	116	33	23	18	6	6	11
Bakery products	735	11	187	320	183	27	7	1	3	124	121	102	41	97	162	84
Bar and store fixtures, billiards, etc.	500	1	465	17	14	1	2	------	3	4	12	36	44	21	93	287
Blacksmithing and horseshoeing	96	------	80	15	------	------	1	------	------	------	4	5	20	36	10	21
Boilers, engines and tanks	194	------	194	------	------	------	------	------	3	4	5	31	22	20	74	35
Boots and shoes	326	------	135	190	1	------	------	------	17	33	58	48	58	43	40	29
Boxes, paper	348	------	256	91	------	------	1	------	67	99	66	35	34	20	8	19
Boxes, wood	361	------	32	320	9	------	------	------	4	41	25	67	159	36	9	20
Brick, tile, pottery, etc.	36	------	3	------	33	------	------	------	------	------	10	18	4	1	1	2
Cans, tin	615	------	141	474	------	------	------	------	------	143	277	95	51	6	33	10
Carriages and wagons	247	1	244	1	------	------	1	------	2	4	16	32	55	38	64	36
Carpets and rugs	27	------	10	17	------	------	------	------	------	7	1	4	3	8	------	4
Cigars and cigarettes	618	------	528	90	------	------	------	------	22	99	57	135	100	77	68	60
Clothing	2474	8	2360	106	------	------	------	3	168	578	644	467	190	139	141	144
Coffee, spices, etc.	382	11	331	26	13	1	------	------	11	69	79	38	28	17	14	126
Coffins	55	------	19	35	1	------	------	------	------	3	11	4	9	6	13	9
Confectionery	1712	31	1034	441	203	------	3	------	101	616	348	219	133	109	73	113
Construction work, general contracting, etc.	697	2	508	53	134	------	------	------	2	8	11	56	73	170	142	235
Cooperage	350	6	65	279	------	------	------	2	5	46	34	43	55	32	101	32
Copper and brass goods	111	------	99	12	------	------	------	------	3	3	6	12	13	8	29	37
Dairy products, butter, etc.	93	------	17	76	------	------	------	------	1	------	9	14	29	15	8	17
Drugs and chemicals	239	3	156	9	71	------	------	------	6	55	42	44	20	28	8	36
Dyeing and cleaning	490	4	299	187	------	------	------	------	1	60	139	95	64	66	29	36
Electrical goods and supplies	692	1	378	309	------	4	------	------	11	126	113	77	112	62	75	116
Elevators	183	------	183	------	------	------	------	------	------	4	9	3	24	48	19	76
Envelopes	64	1	49	14	------	------	------	------	10	23	14	3	5	4	2	3
Extracts, perfumes, etc.	53	------	43	10	------	------	------	------	17	12	9	2	2	3	------	8
Fertilizers	46	------	4	41	1	------	------	------	------	1	18	16	4	4	------	3
Fixtures, gas and electric	453	1	158	292	------	------	2	------	4	29	43	94	57	40	100	86
Flouring mill products	403	------	159	70	161	10	3	------	------	34	15	15	100	114	64	61
Foundries	616	3	526	87	------	------	------	1	10	25	28	70	73	58	254	97

TABLE No. 5. CITY OF SAN FRANCISCO.

Summary of all Establishments. Hours of Labor and Wages. (Tabulated by industry.)—Continued.

INDUSTRY.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Furniture	358	1	109	242	6	------	------	------	4	10	12	61	73	63	77	58
Garages and repair shops	465	9	161	157	8	------	130	------	6	14	17	15	45	54	165	149
Glass and glassware	1114	1	196	917	------	------	------	------	------	20	262	395	37	32	39	329
Gloves	129	------	109	20	------	------	------	------	6	16	50	32	12	7	1	5
Harness and saddlery	106	------	50	56	------	------	------	------	------	6	3	9	17	27	21	23
Hats, caps and furnishings	386	------	308	75	3	------	------	------	6	25	93	57	49	73	34	49
Ice	172	1	48	44	50	18	11	------	------	------	------	2	30	53	57	30
Ink	35	------	18	17	------	------	------	------	1	1	1	4	8	2	6	12
Iron, structural and architectural	584	------	152	422	------	8	2	------	1	9	13	64	108	70	148	171
Jewelry, watches and silversmiths	396	1	340	51	4	------	------	------	5	67	33	55	23	50	79	84
Laundries, hand	179	------	88	6	85	------	------	------	6	45	92	33	1	------	------	2
Laundries, steam	1716	3	1451	236	20	3	3	------	1	433	518	162	167	260	62	113
Leather, leather goods, etc.	517	3	46	465	------	------	3	------	4	13	19	165	219	53	15	29
Liquors, malt	676	1	569	32	32	39	3	------	1	2	5	10	14	142	302	200
Lithographing	531	------	528	------	------	2	1	------	14	117	66	49	49	44	56	136
Lumber and milling	1109	1	721	363	2	------	22	------	------	6	32	80	176	119	162	534
Machinery and machine shop products	3191	6	3087	96	------	------	2	------	115	157	71	477	498	279	1155	439
Mattresses, pillows and bedding	266	------	255	4	6	------	1	------	------	8	19	54	28	16	93	48
Millinery	26	------	26	------	------	------	------	1	------	3	4	4	4	1	4	5
Moldings and frames, picture	127	------	20	105	------	------	2	------	1	10	14	16	16	17	34	19
Newspapers	1057	21	1036	------	------	------	------	------	3	36	44	33	52	141	84	664
Optical goods	132	------	58	74	------	------	------	------	10	14	9	18	7	14	14	46
Oils and grease	66	------	------	1	36	------	29	------	------	------	------	24	10	24	6	2
Paints, varnishes, etc.	532	2	161	329	20	15	5	1	3	10	39	155	97	63	84	80
Pastes, macaroni, etc.	89	------	15	55	19	------	------	------	------	8	7	8	46	13	------	7
Patterns and models	34	------	34	------	------	------	------	------	2	4	------	3	2	1	------	22
Pennants and sporting goods	142	------	100	42	------	------	------	------	1	26	48	29	13	16	5	4
Photographs and photo-engraving	181	1	136	44	------	------	------	------	14	32	9	15	15	25	21	50
Pickles, preserves, sauces, etc.	319	1	179	64	73	------	2	------	30	62	42	25	58	24	44	34
Plating	28	------	1	27	------	------	------	------	------	------	3	3	2	3	16	1
Plumbing, steam and gas fitting	86	------	86	------	------	------	------	------	------	------	------	1	19	5	1	60
Printing and binding	2246	32	2210	4	------	------	------	3	67	216	299	248	251	121	402	639
Restaurants	1385	160	173	82	868	77	25	1	11	280	348	399	77	93	71	105

Roofing	27	2	4	20			1				2	11	4	4	3	3
Rubber goods	119	5	101	13						4	6	9	26	15	9	50
Safes and vaults	21		1	20						3	1			7	8	2
Shipwrights, caulkers, etc.	56		56						1	6	2	3	2	16	21	5
Slaughtering and meat packing	1152	5	350	305	484		8		1	25	173	221	191	193	188	160
Smelting	68		3	38	24		3			2	1	21	27	8	5	4
Soap, tallow, glue, etc.	125		26	51	47		1				20	31	24	25	21	4
Soda and mineral water	49		5	43			1				1		12	7	12	17
Stencils and stamps	10			10						3			1	1	3	2
Stone and marble	326	1	320	5						3	1	15	57	33	95	122
Stoves and furnaces	236		82	153	1					4	5	28	25	37	80	57
Sugar, refining	492		150	17	5	14	306		8	12	8	41	210	103	41	69
Tailor shops	671	4	502	165					15	43	65	109	78	57	110	194
Tinware, sheet metal, etc.	448	2	401	44	1				1	26	21	21	65	42	54	218
Tools and hardware	42		36	6						3	3	4	4	4	17	7
Trunks, valises, etc.	174		34	140						30	20	22	37	42	10	13
Wire and wire products	183		15	49	115		4			1	12	53	43	33	28	13
Miscellaneous	630	19	285	282	40		4	1	18	69	103	109	122	74	93	41
Totals	36912	379	23816	9131	2778	219	589	14	837	4314	4907	5340	4779	3967	5742	7012
Wholesale.																
Bicycles, motorcycles and supplies	30	2	13	15						2	7	1	3	5	5	7
Boots and shoes	79	3	48	28						1	2	6	13	20	12	25
Building materials	17		8		9						1	1	4	3	4	4
Butchers' supplies	32		22	10							5	2	2	3	2	18
Cigars and tobaccos	268	3	139	126						7	8	18	33	56	39	107
Clothing and furnishings	650	7	309	311	23			1		94	74	65	79	51	46	240
Commission merchants	478	1	168	106	197		6			7	21	15	59	125	66	185
Drugs and chemicals	576	1	332	243					20	121	96	85	74	34	27	119
Dry goods	245		35	204	6				5	17	27	29	35	30	18	84
Fish, oysters, etc.	151	6	11	4	111		19				1	11	34	40	18	47
Furniture, carpets, etc.	179		88	91						4	34	34	20	21	26	40
Gas and electrical goods	391	14	304	73					2	41	14	46	97	39	32	120
Glass	27		24	3						1		2	2	1	1	20
Groceries, coffees, spices, etc.	1301	10	445	662	183		1		5	112	122	80	238	204	84	456
Hardware	1124	2	506	602	14				38	113	126	121	198	114	68	346
Household goods	420		233	178	9				18	72	62	80	41	29	16	102
Importers	66		59	7						8	4	7	8	8	2	29
Iron, steel, wire, etc.	51		18	33						2	1	3	8	6	6	25
Jewelry	57		52	5					2	3	5	7	8	3	2	27
Junk	176		52	35	89					24	31	67	34	5	9	6
Leather	81	4	24	47	6					6	3	8	19	8	23	14
Liquors	826	10	461	247	108					49	63	136	134	81	68	295
Machinery and implements	229	6	185	34	4				2	4	16	19	48	21	26	93

TABLE No. 5. CITY OF SAN FRANCISCO.

Summary of all Establishments. Hours of Labor and Wages. (Tabulated by industry.)—Continued.

INDUSTRY.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Wholesale—Continued.																
Manufacturers' agents	622	15	523	84					1	32	65	86	91	60	56	231
Meats	128		25	82	21						5	14	39	26	25	19
Millinery	198		64	133		1			14	31	29	22	18	10	11	63
Notions, fancy goods, curios, etc.	143		57	71	15				1	10	8	20	24	11	11	58
Paints, oils, wall paper, etc.	141		86	50	4		1		1	7	9	11	18	32	14	49
Paper	336		72	264					2	21	23	35	89	58	32	76
Patterns, dress	65		65						19	29	5	1	5	1	2	3
Plumbing supplies	497		283	177	35		2		1	21	39	54	148	58	54	122
Rubber goods	125		125							1	6	17	29	15	9	48
Safes, scales, etc.	123	5	118						1		2	6	16	18	31	49
Stationery, books, and drawing instruments	288	1	127	159	1				2	18	29	56	50	38	25	70
Miscellaneous	277	1	206	65	5				15	45	21	16	47	35	19	79
Totals	10397	91	5287	4149	840	1	29	1	149	903	964	1181	1765	1269	889	3276
Retail.																
Automobiles and supplies	836	36	570	210	18		2		4	37	65	89	125	102	121	293
Boots and shoes	295		56	239					14	32	23	22	16	37	59	92
Butcher shops and markets	131	2	24	5	99		1			2	11	8	23	41	35	11
Clothing and furnishings	1644	9	1169	456	7	3		1	84	168	241	414	178	169	132	257
Confectionery	143	1	124	11	7				2	54	61	13	2	9		2
Department stores	3283	11	2661	606		3	2	43	368	821	558	419	455	192	158	269
Drug stores	298	22	97	58	121			2	27	58	21	35	34	10	35	76
Dry goods	966	1	756	209					78	135	128	237	122	79	69	118
Florists and nurseries	38	1	17	20							5	2	9	5	4	13
Furniture	791		450	330	6	2	3		3	38	38	94	102	115	79	322
Groceries	199	1	38	147	13					18	27	21	37	43	12	41
Hardware	296	2	74	196	24				3	15	33	30	75	30	32	78
Household goods, crockery, glassware, etc.	15		6	6	3					5	2	1	1	1	2	3
Jewelry	268		67	201					19	35	8	32	20	21	32	101
Millinery	356	4	345	7				13	31	58	50	66	60	38	16	24
Music, musical instruments, etc.	417	1	140	274	2				6	17	49	47	52	39	56	151

Stationery, books, etc.	136	------	72	64	------	------	------	------	4	15	23	25	24	7	15	23
Miscellaneous	137	------	95	42	------	------	------	------	1	9	27	21	30	12	11	26
Totals	10249	91	6761	3081	300	8	8	59	644	1517	1370	1576	1365	950	868	1900
Miscellaneous.																
Feed and fuel	136	12	2	67	39	13	3	------	------	1	1	2	16	81	10	25
Insurance offices	696	316	366	14	------	------	------	------	2	64	57	57	75	72	59	310
Lumber and shipping	285	5	28	210	38	1	3	------	------	1	1	7	25	43	97	111
Milk depots	62	------	18	42	2	------	------	------	------	2	1	1	7	28	21	2
Offices	110	1	107	2	------	------	------	------	1	35	28	9	16	7	2	12
Teaming, livery and storage	1061	6	75	156	798	6	20	------	3	3	6	31	246	388	337	47
General	258	------	159	25	62	10	2	------	------	5	39	49	35	13	47	70
Totals	2608	340	755	516	939	30	28	------	6	111	133	156	420	632	573	577
Recapitulation.																
Manufacturing	36912	379	23816	9131	2778	219	589	14	837	4314	4907	5340	4779	3967	5742	7012
Wholesale	10397	91	5287	4149	840	1	29	1	149	903	964	1181	1765	1269	889	3276
Retail	10249	91	6761	3081	300	8	8	59	644	1517	1370	1576	1365	950	868	1900
Miscellaneous	2608	340	755	516	939	30	28	------	6	111	133	156	420	632	573	577
Grand totals	60166	901	36619	16877	4857	258	654	74	1636	6845	7374	8253	8329	6818	8072	12765
Total males	44079	451	20982	16877	4857	258	654	13	564	2405	3257	5281	6622	5965	7646	12326
Total females	16087	450	15637	------	------	------	------	61	1072	4440	4117	2972	1707	853	426	439

TABLE No. 6. CITY OF SAN FRANCISCO.

Female Employees. Hours of Labor and Wages. (Tabulated by industry.)

INDUSTRY.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing.																
Automobile accessories	6		6									1	2	1		2
Awnings, tents, etc.	107		107						6	50	23	4	13	6	4	1
Bags, paper and burlap	142	3	139							106	27	5	2	1	1	
Bakery products	168	2	166						2	112	43	5	2	3	1	
Bar and store fixtures, billiards, etc.	4	1	3								1		2			1
Blacksmithing and horseshoeing	2		2										2			
Boilers, engines and tanks	4		4										1	3		
Boots and shoes	108		108						13	21	39	24	7	1	2	1
Boxes, paper	220		220						65	96	43	10	5	1		
Boxes, wood	29		29							23	1	2	1		1	1
Brick, tile, pottery, etc.	3		3										1	1	1	
Cans, tin	106		106							61	19	25	1			
Carriages and wagons	18	1	17								3	7	5	1	1	1
Carpets and rugs	8		8							5		3				
Cigars and cigarettes	256		256						20	87	51	86	8	3		1
Clothing	2043	6	2037					2	162	548	619	448	164	48	18	34
Coffee, spices, etc.	179	11	168						9	62	71	14	12	4	4	3
Coffins	14		14							3	6	1	1	3		
Confectionery	976	31	945						97	565	216	57	16	17	6	2
Construction work, general contracting, etc.	16		16								2	5	4	2	2	1
Cooperage	67	6	61					2	5	38	15	1	3		1	2
Copper and brass goods	5		5							1	1	1		1		1
Dairy products, butter, etc.	15		15								9	3		2	1	
Drugs and chemicals	101	2	99						5	48	18	15	2	7	4	2
Dyeing and cleaning	299	3	296						1	58	135	74	18	7	4	2
Electrical goods and supplies	69	1	68							21	8	9	20	5	4	2
Elevators	11		11							1	1		5	2	1	1
Envelopes	47	1	46						10	22	11	1	2	1		
Extracts, perfumes, etc.	34		34						15	11	6	2				
Fertilizers	2		2								1			1		
Fixtures, gas and electric	34	1	33							3	13	4	7	4	1	2
Flouring mill products	57		57							30	15	3	8	1		
Foundries	16	3	13								9	1	2	2		2

Furniture	16	1	15						1		6	3	3	2		1
Garages and repair shops	18	7	11							1	2	5	3	4	1	2
Glass and glassware	66		66							11	10	34	7	3		1
Gloves	92		92						6	16	46	24				
Harness and saddlery	6		6								1	2		3		
Hats, caps and furnishings	232		232						4	18	83	46	26	52	2	1
Ice	3	1	2										2	1		
Ink	6		6								1	2		1	1	1
Iron, structural and architectural	9		9								1	3	4		1	
Jewelry, watches, silversmiths, etc.	38	1	37							21	2	13	1		1	
Laundries, hand	88		88						2	26	52	8				
Laundries, steam	994	3	991							390	426	105	50	17	3	3
Leather, leather goods, etc.	19	3	16						2	4	4	6		1	1	1
Liquors, malt	8	1	7							2	1		2	1	1	1
Lithographing	90		90						7	25	29	5	10	4	8	2
Lumber and milling	24	1	23								2	6	10	3	1	2
Machinery and machine shop products	61	2	59							2	3	8	24	17	5	2
Mattresses, pillows and bedding	39		39							4	10	17	4	4		
Millinery	25		25					1		2	4	4	4	1	4	5
Moldings and frames, picture	20		20								5	5	7	2		1
Newspapers	60	1	59							3	11	8	8	3	6	21
Optical goods	23		23							2	6	5	3	3	2	2
Paints, varnishes, etc.	34	2	32					1		5	12	7	6	1	1	1
Pastes, macaroni, etc.	11		11							6	4			1		
Pennants and sporting goods	85		85							21	41	19	2	2		
Photographs and photo-engraving	53	1	52						13	21	6	9	1		2	1
Pickles, preserves, sauces, etc.	111		111						30	58	15	2	3	1	1	1
Plating	1		1									1				
Plumbing, steam and gas fitting	3		3									1		2		
Printing and bookbinding	546	2	544						37	89	217	81	54	36	12	20
Restaurants	250	78	172					1	11	155	59	9	8	5	1	1
Roofing	2	2									1	1				
Rubber goods	10	1	9										6	2		2
Safes and vaults	1		1							1						
Shipwrights, caulkers, etc.	1		1								1					
Slaughtering and meat packing	17		17							2	7	3	2	2	1	
Smelting	2		2									1	1			
Soap, tallow, glue, etc.	13		13								11	1		1		
Soda and mineral water	2		2								1			1		
Stone and marble	7	1	6										2	4	1	
Stoves and furnaces	5		5									1	3		1	
Sugar, refining	12		12						8	3		1				
Tailor shops	295	1	291						11	21	58	104	70	18	1	12

TABLE No. 6. CITY OF SAN FRANCISCO.

Female Employees. Hours of Labor and Wages. (Tabulated by industry.)—Continued.

INDUSTRY.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Tinware, sheet metal, etc.	23	2	21							4	9	2	4	3		1
Tools and hardware	3		3								1				1	1
Trunks, valises, etc.	30		30							13	13		4			
Wire and wire products	6		6								3	1	1	1		
Miscellaneous	116	8	108					1	16	39	34	6	11	6		3
Totals	8742	191	8551					8	558	2937	2604	1370	662	336	116	151
Wholesale.																
Bicycles, motorcycles, etc.	5	2	3								1	1	1	2		
Boots and shoes	12	3	9									3	4	2	2	1
Building materials	3		3								1				2	
Butchers' supplies	4		4								1	2				1
Cigars and tobaccos	39	2	37							5	3	4	9	10	2	6
Clothing and furnishings	131	4	127							41	31	23	18	7	6	5
Commission merchants	78	1	77							3	16	10	15	11	13	10
Drugs and chemicals	242		242						14	87	60	52	17	6	3	3
Dry goods	20		20								2	9	2	5	2	
Fish, oysters, etc.	5	2	3									1	2	1	1	
Furniture, carpets, etc.	34		34							2		11	12	6	2	1
Gas and electric goods	83	8	75							4	6	22	39	5	4	3
Glass	1		1											1		
Groceries, coffees, spices, etc.	212	10	202							70	57	28	32	15	3	7
Hardware	185	2	183						1	25	50	34	51	13	6	5
Household goods	138		138						8	51	32	33	9	2	3	
Importers	22		22							4	3	5	5	4	1	
Iron, steel, wire, etc.	8		8							1	1	2	2		2	
Jewelry	10		10								2	1	5			2
Junk	47		47							20	15	7	2	2	1	
Leather	14	4	10							1	2	2	2	4	1	2
Liquors	149	6	143							44	37	18	18	16	14	2
Machinery and implements	50	6	44							2	8	13	21	3	2	1
Manufacturers' agents	156	11	145							12	22	41	40	25	6	10

Meats	10	------	10	------	------	------	------	------	------	------	5	3	1	1	------	------
Millinery	59	------	59	------	------	------	------	------	6	17	18	7	5	1	1	4
Notions, fancy goods, curios, etc.	26	------	26	------	------	------	------	------	------	3	1	13	6	3		
Paints, oils, wall paper, etc.	31	------	31	------	------	------	------	------	1	1	3	3	6	14	3	------
Paper	45	------	45	------	------	------	------	------	------	2	11	11	10	7	3	1
Patterns, dress	54	------	54	------	------	------	------	------	19	26	4	------	3	1	------	1
Plumbing supplies	42	------	42	------	------	------	------	------			6	15	13	3	3	2
Rubber goods	23	------	23	------	------	------	------	------	------	------		2	12	5	1	3
Safes, scales, etc.	11	2	9	------	------	------	------	------	------	------	1	1	7	------	2	------
Stationery, books and drawing instruments	59	------	59	------	------	------	------	------	------	------	10	24	17	4	1	3
Miscellaneous	89	1	88	------	------	------	------	------	13	36	9	5	12	7	2	5
Totals	2097	64	2033	------	------	------	------	------	62	457	418	406	398	186	92	78
Retail.																
Automobiles and supplies	119	18	101	------	------	------	------	------	------	9	15	30	41	9	7	8
Boots and shoes	44	------	44	------	------	------	------	------	2	15	12	10	2	2	------	1
Butcher shops and markets	20	2	18	------	------	------	------	------	------	2	7	2	4	4	------	1
Clothing and furnishings	1056	------	1056	------	------	------	------	1	52	102	216	382	106	80	60	57
Confectionery	123	1	122	------	------	------	------	------	2	51	56	10	1	3	------	------
Department stores	2160	11	2149	------	------	------	------	40	332	639	462	300	205	66	63	53
Drug stores	60	------	60	------	------	------	------	------	------	6	15	19	17	1	2	------
Dry goods	544	------	544	------	------	------	------	------	35	77	87	194	65	34	30	22
Florists and nurseries	5	1	4	------	------	------	------	------			1	------	1	3		
Furniture	134	------	134	------	------	------	------	------	2	5	22	48	26	17	7	7
Groceries	38	------	38	------	------	------	------	------	------	1	18	13	3	3	------	------
Hardware	34	2	32	------	------	------	------	------	------	2	8	17	5	1	1	------
Household goods, crockery, glassware, etc.	2	------	2	------	------	------	------	------	------	------	1	1	------	------	------	------
Jewelry	28	------	28	------	------	------	------	------	------	1	5	11	5	3	2	1
Millinery	339	------	339	------	------	------	------	12	27	51	50	65	59	38	16	21
Music, musical instruments, etc.	78	1	77	------	------	------	------	------	------	4	22	16	18	7	2	9
Stationery, books, etc.	49	------	49	------	------	------	------	------	------	4	14	12	14	2	3	------
Miscellaneous	27	------	27	------	------	------	------	------	------	1	6	12	2	3	1	2
Totals	4860	36	4824	------	------	------	------	53	452	970	1017	1142	574	276	194	182

TABLE No. 6. CITY OF SAN FRANCISCO.

Female Employees. Hours of Labor and Wages. (Tabulated by industry.)—Continued.

INDUSTRY.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Miscellaneous.																
Feed and fuel	4	2	2								1	2	1			
Insurance offices	234	149	85							39	29	30	49	42	21	24
Lumber and shipping	14	5	9								1	3	4	2	2	2
Milk depots	4		4							2		1		1		
Offices	71	1	70							29	26	7	7	2		
Teaming, livery and storage	26	2	24							1	2	5	8	8	1	1
General	35		35							5	19	6	4			1
Totals	388	159	229							76	78	54	73	55	24	28
Recapitulation.																
Manufacturing	8742	191	8551					8	558	2937	2604	1370	662	336	116	151
Wholesale	2097	64	2033						62	457	418	406	398	186	92	78
Retail	4860	36	4824					53	452	970	1017	1142	574	276	194	182
Miscellaneous	388	159	229							76	78	54	73	55	24	28
Grand totals	16087	450	15637					61	1072	4440	4117	2972	1707	853	426	439

TABLE No. 7. CITY OF LOS ANGELES.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Automobiles and Accessories.	10	establishments.														
Manufacturing:																
Assemblers	31			31								6		25		
Blacksmiths	10			10										2	4	4
Blacksmiths, helpers	5			5								1	2	2		
Carpenters	3			3										3		
Draughtsmen	2			2									2			
Machinists	35			35								1	1	32	1	
Managers and foremen	9			9											3	6
Mechanics	5			5							1		1	1	1	1
Metal workers	2			2							1				1	
Operators (F.)	13		13							3	5	5				
Painters	37			37							1		8	25	2	1
Seamstresses (F.)	1		1										1			
Sheet metal workers	8			8							2				6	
Spring fitters	2			2												2
Top makers	8			8									3	5		
Trimmers	7			7										3	2	2
Wood workers	14			14									2	7	2	3
General help	3			3							2	1				
Clerical:																
Bookkeepers	3			3										1	1	1
Bookkeepers (F.)	4	1	3									2	1		1	
Cashiers	1			1												1
Errand boys	1			1						1						
Salesmen	5			5											1	4
Stenographers	1			1							1					
Stenographers (F.)	2		2									1	1			
Stock clerks	2			2								1	1			
Totals	214	1	19	194						4	13	18	23	106	25	25

TABLE No. 7. CITY OF LOS ANGELES.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Awnings, Tents, Etc.	3	establishments.														
Manufacturing:																
Awning hangers	5			5									3	2		
Awning finishers	1			1										1		
Awning makers	3			3								2	1			
Operators (F.)	13		13							2	9	2				
General help	7			7								1	4	2		
Clerical:																
Bookkeepers (F.)	2		2									1	1			
Office clerks	1			1							1					
Solicitors	1			1										1		
Totals	33		15	18						2	10	6	9	6		
Bakery Products.	18	establishments.														
Manufacturing:																
Bakers	82	1		58	23								19	38	16	9
Bakers (F.)	1		1											1		
Bakers, apprentices	8			7	1							8				
Bakers, helpers	31			21	10					2	10	16	2	1		
Bus boys	1			1							1					
Carpenters	3			3									1		2	
Cooks	11			2	9						2	5	2	2		
Cooks (F.)	1		1								1					
Cooks, helpers	2			1	1					1	1					
Drivers	54			30	24						4	10	11	25	4	
Engineers	2			2											1	1
Kitchen help	10		1	1	8					7	3					
Managers and foremen	12			3	9							5	2			5
Managers and forewomen (F.)	1		1								1					
Packers (F.)	11		11							5	1	5				
Porters and packers	16			15	1						2	4	6	4		
Soda dispensers	2			2									2			
Stablemen	6			3	3							2	3	1		

Waiters	18				10	8				3	13	1	1			
Waitresses	7		7						1	6						
General help	1			1											1	
General help (F.)	4		4							4						
Clerical:																
Bookkeepers	3	1		2					1				1	1		
Bookkeepers (F.)	3		3								1	1		1		
Cashiers	2					2						2				
Cashiers (F.)	1	1								1						
Office clerks	5		1		4						1	3			1	
Office clerks (F.)	4		4								1	2				1
Salesmen	9		1	2	6						2	3	1	1		2
Saleswomen	20		20							12	6	1				1
Shipping clerks	9			5	4							4		5		
Solicitors	1			1										1		
Stenographers (F.)	2		2							1		1				
Stock clerks	6				6							6				
Totals	349	3	57	160	119	10			2	42	50	79	51	81	25	19
Bar and Store Fixtures.	2	est	ablis	hmen	ts.											
Manufacturing:																
Billiard men	5		5												5	
Cabinetmakers	32		32								1		2	4	20	5
Finishers	16		16							1			4	10		1
Glaziers	14		14							1	2		4	6	1	
Machine hands	16		16								1	1	4	2	8	
Metal workers	1		1											1		
Show case makers	14		14							2	1	2		7	1	1
Soda fountain makers	1		1													1
Teamsters	2		1		1							1	1			
Watchmen	1						1						1			
General help	9		9							2		5	2			
Clerical:																
Advertising men	1		1													1
Bookkeepers	4		4										1		1	2
Office clerks	2			2								1		1		
Salesmen	8		8										1			7
Stenographers (F.)	3		3									1	2			
Stock clerks	4		4							1		1	1			1
Totals	133		129	2	1		1			7	5	12	23	31	36	19

TABLE No. 7. CITY OF LOS ANGELES.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Blacksmithing and Horseshoeing.	1	establishment.														
Manufacturing:																
Blacksmiths	4			4												4
Blacksmiths, helpers	6			6										6		
Engineers	1			1										1		
Machinists	2			2												2
Machinists, helpers	2			2								2				
Managers and foremen	1			1												1
Clerical:																
Bookkeepers	1			1												1
Totals	17			17								2		7		8
Boilers, Engines and Tanks.	9	establishments.														
Manufacturing:																
Blacksmiths	3			3										1	2	
Blacksmiths, helpers	3			3								2		1		
Boilermakers	30			30									1	13	9	7
Boilermakers, helpers	58			58							1	30	27			
Casting chippers	2			2									2			
Coremakers	2			2											2	
Draughtsmen	2			2												2
Draughtsmen, apprentices	1			1							1					
Machinists	48			48										44	3	1
Machinists, apprentices	1			1								1				
Machinists, helpers	4			4								3			1	
Managers and foremen	18		2	16												18
Mechanics	3			3									1			2
Molders	5			5										5		
Molders, helpers	6			6							6					
Painters	1			1											1	
Painters, helpers	1			1									1			
Patternmakers	2			2											1	1

Sheet metal workers	66		21	45								32	8	4	11	11
Sheet metal workers, apprentices	3		3									1	2			
Clerical:																
Bookkeepers	4		1	3												4
Bookkeepers (F.)	2		2								1		1			
Office clerks	5		1	4										2		3
Salesmen	11		1	10												11
Shipping clerks	1			1									1			
Stenographers (F.)	5	1	4						1		2	2				
Telephone girls	1		1								1					
Totals	288	1	36	251					1		12	71	44	70	30	60
Boxes, Paper.	3	establishments.														
Manufacturing:																
Box makers	8			8						1	3	1	2	1		
Box makers (F.)	95		95						27	57	11					
Die makers	1			1										1		
Drivers	3			3						2			1			
Managers and foremen	7			7											1	6
Managers and forewomen (F.)	2		2									1		1		
Mechanics	8			8							5			3		
Paper cutters	7			7									3	3	1	
Porters	2			2								2				
Printers	28			28						2	5	7	5	6	2	1
Clerical:																
Bookkeepers	1			1											1	
Office clerks	4			4							1	2		1		
Salesmen	2			2									1	1		
Shipping clerks	1			1										1		
Stenographers (F.)	4		4									2	1	1		
Totals	173		101	72					27	62	25	15	13	19	5	7
Boxes, Wood.	5	establishments.														
Manufacturing:																
Box makers	53			53						1	2	23	24	2	1	
Box makers (F.)	4		4							4						
Engineers	1			1										1		
Managers and foremen	4			4									1		1	2
Saw filers	2			2											2	
Teamsters	5			5							1	3		1		

TABLE No. 7. CITY OF LOS ANGELES.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Watchmen	2			2								1	1			
General help	44			44						13	7	23	1			
Clerical:																
Bookkeepers	9			3	6									1	1	7
Bookkeepers (F.)	1		1													1
Cashiers	1				1											1
Office clerks	13				13						13					
Salesmen	11				11									3	3	5
Shipping clerks	2			2										2		
Stenographers (F.)	4		4								1	3				
Totals	156		9	116	31					18	24	53	27	10	8	16
Brick, Tile and Pottery.	10	establishments.														
Manufacturing:																
Engineers	16			5	11								1	8	7	
Firemen	2			2									2			
Machinists	4			2	2								1	3		
Managers and foremen	33		5	22	6								2	3	6	22
Mechanics	13			11	2								1		10	2
Porters	3			1	2						2	1				
Teamsters	37		20	5	12							24	10	1		2
Timekeepers	3			3										3		
General help	902		95	643	164					21	191	495	82	66	29	18
Clerical:																
Bookkeepers	10		3	7									1	3	3	3
Bookkeepers (F.)	2		2								1			1		
Cashiers	2		1	1									1			1
Collectors	3		1	2										1		2
Errand boys	1			1								1				
Office clerks	3		3										1			2
Salesmen	6		4	2									1			5

Shipping clerks	4	------	------	1	3	------	------	------	------	------	------	------	2	------	2	------
Stenographers	1	------	------	1	------	------	------	------	------	------	------	------	1	------	------	------
Stenographers (F.)	5	------	5	------	------	------	------	------	------	------	3	------	1	1	------	------
Telephone girls	2	------	2	------	------	------	------	------	------	------	1	1	------	------	------	------
Totals	1052	------	141	709	202	------	------	------	------	21	198	522	107	90	57	57
Building Materials, Cement, Etc.	7	establishments.														
Manufacturing:																
Chemists	5	------	------	5	------	------	------	------	------	------	1	------	1	2	------	1
Draughtsmen	1	------	1	------	------	------	------	------	------	------	------	------	------	------	------	1
Engineers	8	------	------	8	------	------	------	------	------	------	------	------	------	3	4	1
Managers and foremen	36	------	9	27	------	------	------	------	------	------	------	------	3	6	6	21
Mechanics	61	------	8	53	------	------	------	------	------	------	------	4	16	14	25	2
Millwrights	2	------	------	2	------	------	------	------	------	------	------	------	------	------	1	1
Teamsters	11	------	------	11	------	------	------	------	------	5	1	3	------	------	------	2
Warehousemen and watchmen	6	------	------	6	------	------	------	------	------	------	1	2	3	------	------	------
Weighers	9	------	------	9	------	------	------	------	------	------	------	1	4	4	------	------
General help	491	------	9	459	4	------	19	------	------	------	199	163	88	27	12	2
Clerical:																
Bookkeepers	6	------	2	3	1	------	------	------	------	------	------	------	1	------	1	4
Buyers	1	------	------	1	------	------	------	------	------	------	------	------	------	------	------	1
Cashiers	1	------	------	1	------	------	------	------	------	------	------	------	------	------	------	1
Office clerks	3	------	------	3	------	------	------	------	------	------	------	------	1	2	------	------
Salesmen	3	------	1	2	------	------	------	------	------	------	------	------	1	------	------	2
Stenographers	3	------	------	3	------	------	------	------	------	------	------	------	1	2	------	------
Stenographers (F.)	3	------	3	------	------	------	------	------	------	------	1	1	1	------	------	------
Totals	650	------	33	593	5	------	19	------	------	5	203	174	120	60	49	39
Carriages and Wagons.	4	establishments.														
Manufacturing:																
Blacksmiths	15	------	------	15	------	------	------	------	------	------	------	------	------	4	11	------
Blacksmiths, helpers	10	------	------	10	------	------	------	------	------	------	------	------	10	------	------	------
Managers and foremen	5	------	------	5	------	------	------	------	------	------	------	------	------	2	------	3
Mechanics	10	------	------	10	------	------	------	------	------	------	------	2	2	2	4	------
Painters	15	------	------	15	------	------	------	------	------	------	------	------	1	13	1	------
Porters	3	------	------	3	------	------	------	------	------	------	------	3	------	------	------	------
Teamsters	1	------	------	1	------	------	------	------	------	------	------	1	------	------	------	------
Wood workers	6	------	------	6	------	------	------	------	------	------	------	------	------	6	------	------
General help	1	------	------	1	------	------	------	------	------	------	------	1	------	------	------	------

TABLE No. 7. CITY OF LOS ANGELES.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical:																
Bookkeepers (F.)	2		2									2				
Salesmen	4			4									4			
Shipping clerks	1			1									1			
Stock clerks	2			2								2				
Totals	75		2	73								11	18	27	16	3
Cigars and Cigarettes.	5	establishments.														
Manufacturing:																
Banders (F.)	4		4							2	2					
Cigar makers	153		140	13							2	20	52	55	20	4
Cigar makers (F.)	29		29							1	7	8	6	7		
Managers and foremen	3		2	1												3
Packers	3		1	2								1		1		1
Packers (F.)	5		5									1			4	
Strippers	1		1								1					
Strippers (F.)	45		45					1	3	33	6	2				
General help	3		3								2	1				
Clerical:																
Bookkeepers	1			1												1
Salesmen	5		3	2										3		2
Totals	252		233	19				1	3	36	20	33	58	66	24	11
Cleaning and Dyeing.	6	establishments.														
Manufacturing:																
Carpet cleaners and layers	4			4							1	1	1		1	
Cleaners	8			8									4	3	1	
Cleaners (F.)	7		7									6		1		
Drivers	27			17	10						8	6	2	11		
Dyers	4			4										3	1	
Engineers	4			2	2								1	2	1	
Managers and foremen	2		1	1									1			1

Managers and forewomen (F.)	2		2										1	1		
Markers (F.)	2		2							2						
Porters	2			1		1					1	1				
Pressers	9			9									7	1		1
Pressers (F.)	19		19							1	4	14				
Seamstresses	18		18							2	15	1				
Tailors	1			1									1			
General help	1			1										1		
Clerical:																
Bookkeepers	1			1											1	
Bookkeepers (F.)	2		2								2					
Shipping clerks	2				2								1	1		
Stenographers (F.)	1		1								1					
Store clerks	4			4									3	1		
Store clerks (F.)	13		13							11	2					
Telephone girls	2		2								2					
Totals	135		67	53	14	1				16	36	29	22	25	5	2
Clothing, Garments, Etc.	31	establishments.														
Manufacturing:																
Cutters	55		31	24						4	5	4	22	2	14	4
Designers	1			1												1
Dressmakers (F.)	44		44						2	3	20	8	2	8		1
Finishers (F.)	76		76						7	38	22	6	3			
Knitters	14		10	4						1		1	5	6	1	
Machinists	4		3	1										2	1	1
Managers and foremen	20		10	10										1	1	18
Managers and forewomen (F.)	10		10								1		2			7
Operators	35			35							2		4	5	14	10
Operators (F.)	892		892					15	102	286	304	136	43	4	2	
Porters and packers	9		7	2						2	2	3	1	1		
Pressers	14		1	13									2	8	4	
Pressers (F.)	2		2							1	1					
Seamstresses	83		83							12	27	28	5	1	2	8
Tailors	9		7	2									1		2	6
Tailors (F.)	8		8							1	5	1				1
Wig makers	1	1									1					
General help	4		3	1						3	1					
General help (F.)	3		3								3					
Clerical:																
Bookkeepers	12			12								2		5		5
Bookkeepers (F.)	4		4							2		2				

TABLE No. 7. CITY OF LOS ANGELES.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical—Continued.																
Cashiers	1		1								1					
Errand boys	10	1	2	7					2	8						
Errand girls	2		2						1	1						
Office clerks	10		3	7						1	1	1	2	2		3
Office clerks (F.)	7		7								2	2	1	1		1
Salesmen	23		4	19										1	1	21
Saleswomen	9		9								2	4	3			
Shipping clerks	5		1	4						1	2			1	1	
Stenographers (F.)	7		7							5		1		1		
Stock clerks	36		5	31					1	5	1	12	8	2	2	5
Telephone girls	1		1								1					
Totals	1411	2	1236	173				15	115	374	404	211	104	51	45	92
Coffins.	2	establishments.														
Manufacturing:																
Cabinetmakers	4			4											4	
Carpenters	7			7										7		
Finishers	6			6											6	
Managers and foremen	3			3											1	2
Metal workers	3			3										3		
Seamstresses	2		2									1		1		
Teamsters	3			3									3			
Trimmers	4			4										4		
Warehousemen	4			4							1		3			
General help	4			4								4				
Clerical:																
Bookkeepers	2		1	1										1	1	
Salesmen	2			2												2
Stenographers (F.)	1		1											1		
Totals	45		4	41							1	5	6	17	12	4

Confectionery.	12	est	ablis	hmen	ts.											
Manufacturing:																
Bakers	23			14	9							4	7	4	5	3
Bakers (F.)	1		1							1						
Bakers, helpers	28			14	14					2	9	6	7	2	2	
Candy makers	81		10	38	33					4	26	9	15	12	6	9
Candy makers, helpers (F.)	41		41						11	19	10		1			
Chocolate dippers (F.)	25		25							7	8	10				
Chocolate roasters	2				2									1	1	
Cooks	7			4	3						1	2	2	1		1
Cooks (F.)	2		2							1		1				
Cracker makers	7			4	3							2	3	1	1	
Cracker makers (F.)	45		45						9	35	1					
Engineers	8			1	7									3	3	2
Fruit preservers	5				5							4			1	
Ice cream makers	21			1	20						8	9	3		1	
Kitchen help	5				5						5					
Macaroni makers	15			15						4	3	7				1
Macaroni makers (F.)	5		5						3	2						
Managers and foremen	19		3	9	7										6	13
Managers and forewomen (F.)	8		8								4	2	1		1	
Packers (F.)	234		234						8	195	23	6	2			
Porters and packers	56			1	55					8	29	12	5	1	1	
Soda dispensers	9			7	2							2	5	2		
Stablemen	5			1	4							3	1		1	
Teamsters	35			16	19					1	15	11	4	2	2	
Waiters	16				16						14		2			
Waitresses	10		10								9	1				
General help	10			10								10				
Clerical:																
Bookkeepers	9			8	1							2	1	1	3	2
Bookkeepers (F.)	1		1										1			
Buyers	1				1											1
Cashiers	2		1		1										1	1
Cashiers (F.)	1		1									1				
Collectors	1			1										1		
Credit men	1				1											1
Office clerks	18			5	13						6	4	1	6		1
Office clerks (F.)	10		10							3	3	2	2			
Salesmen	56		12	44									4	12	10	30
Saleswomen	24		24						10	8	6					
Shipping clerks	27			8	19						7	9	4	6	1	
Solicitors	2			2										1	1	
Stenographers	1			1												1

TABLE No. 7. CITY OF LOS ANGELES.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical—Continued.																
Stenographers (F.)	9	1	8							1	2	3	2		1	
Stock clerks	1				1						1					
Totals	887	1	441	204	241				41	291	190	122	73	56	48	66
Construction Work, General Contracting, Etc.	27	establishments.														
Manufacturing:																
Blacksmiths	12		3	2	7									1	10	1
Blacksmiths, helpers	5				5								3	2		
Bricklayers	47		47													47
Carpenters	788		702	49	37							3	5	365	343	72
Carpenters, helpers	20			20									20			
Cement and concrete workers	143		141		2							60	33	12	22	16
Chemists	3			3											3	
Draughtsmen	8		8													8
Draughtsmen (F.)	1		1											1		
Drillers, well	18				18								9			9
Electricians	47		46	1						1	2		3	20	17	4
Engineers	33		2	16	15									9	3	21
Estimaters	1		1													1
Firemen	10				10									10		
Machinists	24		2		22								2	17	3	2
Managers and foremen	140		54	52	34								4	12	23	101
Mechanics	5		5							3	1		1			
Millwrights	63			63										48	12	3
Painters	23		23											20	2	1
Plasterers	56		56													56
Plumbers	6		6											3	2	1
Sheet metal workers	24			24									8	10	4	2
Stablemen	3				3						1		1	1		
Structural iron workers	60		22	38									16	30	9	5
Teamsters	197		11	68	118							154	33	7	2	1
Timekeepers	13		3	8	2								2	7	3	1
Watchmen	1				1						1					
General help	1326		334	503	489					3	131	802	357	31	2	

Clerical:																
Bookkeepers	24		12	12								1		2	9	12
Bookkeepers (F.)	9		9									2	3	1	1	2
Cashiers	3		2	1											2	1
Collectors	2			2												2
Errand boys	6		4	2					1	1	3	1				
Office clerks	30		11	13	6					3		1	2	7	15	2
Salesmen	2		2									1	1			
Shipping clerks	1			1											1	
Solicitors	2			2									1	1		
Stenographers (F.)	11	2	9							3	1	6	1			
Stock clerks	1			1								1				
Telephone girls	4		4								1	1	1		1	
Totals	3172	2	1520	881	769				1	14	141	1033	506	617	489	371
Copper and Brass Goods.	6	est	ablis	hmen	ts.											
Manufacturing:																
Brass finishers	33			3	30										32	1
Brass finishers, helpers	3			3							1	2				
Brass polishers	6			6									3	3		
Brass polishers, helpers	1			1							1					
Coppersmiths	3		3													3
Coppersmiths, apprentices	2		2							1			1			
Coppersmiths, helpers	1		1									1				
Coremakers	4			3	1					1	1	1			1	
Foundry helpers	1			1							1					
Machinists	11			11									2	7		2
Machinists, apprentices	5			5						1	1	3				
Managers and foremen	9		1	7	1										1	8
Molders	15			7	8									2	13	
Molders, helpers	2			2									2			
Patternmakers	2				2										2	
Sheet metal workers	1			1										1		
Teamsters	1			1								1				
General help	13			13					1	2			10			
Clerical:																
Bookkeepers	3		1	2								1				2
Salesmen	3			2	1							1		1		1
Shipping clerks	1			1									1			
Totals	120		8	69	43				1	5	5	10	19	14	49	17

TABLE No. 7. CITY OF LOS ANGELES.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Dairy Products.	3	est	ablis	hmen	ts.											
Manufacturing:																
Blacksmiths	8	------	8	------	------	------	------	------	------	------	------	------	2	2	4	------
Butter makers	5	------	------	2	3	------	------	------	------	------	------	------	3	1	1	------
Chemists	1	------	------	1	------	------	------	------	------	------	------	------	------	------	------	1
Drivers	86	------	81	2	3	------	------	------	------	------	------	------	9	77	------	------
Engineers	7	------	------	------	4	------	3	------	------	------	------	------	2	4	1	------
Managers and foremen	4	------	------	2	2	------	------	------	------	------	------	------	------	2	------	2
Packers (F.)	3	------	3	------	------	------	------	------	------	3	------	------	------	------	------	------
Porters and packers	9	------	------	7	2	------	------	------	------	------	------	5	3	1	------	------
Stablemen	19	------	------	19	------	------	------	------	------	------	------	14	5	------	------	------
General help	65	------	2	63	------	------	------	------	------	------	------	35	25	3	------	2
Clerical:																
Bookkeepers	5	------	4	------	1	------	------	------	------	------	------	------	------	2	3	------
Bookkeepers (F.)	19	------	19	------	------	------	------	------	------	------	3	7	7	2	------	------
Cashiers	1	------	1	------	------	------	------	------	------	------	------	------	------	------	1	------
Collectors	13	------	------	13	------	------	------	------	------	------	------	------	------	1	12	------
Office clerks	1	------	------	1	------	------	------	------	------	------	------	------	1	------	------	------
Salesmen	9	------	------	7	2	------	------	------	------	------	------	------	1	6	1	1
Shipping clerks	1	------	------	1	------	------	------	------	------	------	------	------	------	------	1	------
Solicitors	1	------	------	1	------	------	------	------	------	------	------	------	------	1	------	------
Stenographers (F.)	2	------	2	------	------	------	------	------	------	------	1	1	------	------	------	------
Totals	259	------	120	119	17	------	3	------	------	3	4	62	58	102	24	6
Drugs and Chemicals.	4	est	ablis	hmen	ts.											
Manufacturing:																
Chemists	2	------	------	2	------	------	------	------	------	------	------	------	------	1	1	------
Dentists, mechanical	4	------	------	4	------	------	------	------	------	------	------	------	------	------	1	3
Dentists, apprentices	2	------	------	2	------	------	------	------	------	1	1	------	------	------	------	------
Engineers	2	------	------	2	------	------	------	------	------	------	------	------	------	------	1	1
Labelers (F.)	2	------	2	------	------	------	------	------	1	1	------	------	------	------	------	------
Machinists	5	------	------	5	------	------	------	------	------	------	------	------	5	------	------	------
Machinists, helpers	9	------	------	9	------	------	------	------	------	4	5	------	------	------	------	------

Managers and foremen	4		1	3												4
Teamsters	3			3						1			1	1		
General help	4			4							1		3			
Clerical:																
Bookkeepers (F.)	2		2											1	1	
Errand boys	2			2						2						
Office clerks	13			13									6	1		6
Office clerks (F.)	1		1										1			
Shipping clerks	1			1												1
Stenographers (F.)	4		4								1		1	2		
Stock clerks	2			2								2				
Telephone girls (F.)	1		1									1				
Totals	63		11	52					1	9	8	3	17	6	4	15
Electrical Goods and Supplies.	15	est	ablis	hmen	ts.											
Manufacturing:																
Armature winders	8			8								1		1	6	
Chemists	2				2								1			1
Draughtsmen	3			3										1	2	
Electricians	87		64	17	6						4	4	14	12	31	22
Electricians, apprentices	11		3	8						9	2					
Electricians, helpers	9			9								5		4		
Engineers, electrical	4		2	2											1	3
Machinists	32		1	31								3	9	12	7	1
Machinists, apprentices	2			2								2				
Machinists, helpers	9			9						1	8					
Managers and foremen	18		6	11	1									1	1	16
Mechanics	3			2	1						1	1		1		
Teamsters	1			1									1			
General help	12		1	4	7					3	5	4				
Clerical:																
Bookkeepers	1		1							1						
Bookkeepers (F.)	9		9								1	1	2	3	2	
Cashiers	1		1													1
Cashiers (F.)	3		3								1		2			
Collectors	1		1							1						
Errand boys	4		3	1						3	1					
Office clerks	24		5	19							7	6	5	5	1	
Office clerks (F.)	1		1										1			
Salesmen	17		11	4	2							2			1	14
Shipping clerks	6		3	2	1							1	3		1	1
Solicitors	1		1									1				

TABLE No. 7. CITY OF LOS ANGELES.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical—Continued.																
Stenographers (F.)	12		12							1	4	1	1	4	1	
Stock clerks	4		3	1								3			1	
Telephone girls	3		3								2	1				
Totals	288		134	134	20					19	36	36	39	44	55	59
Elevators.	1	establishment.														
Manufacturing:																
Electricians, helpers	4		4										4			
Managers and foremen	3		3												2	1
Clerical:																
Solicitors	1		1													1
Totals	8		8										4		2	2
Fertilizers.	2	establishments.														
Manufacturing:																
Managers and foremen	1				1											1
General help	53			45	8							46	4	2		1
Totals	54			45	9							46	4	2		2
Fixtures, Gas and Electric.	6	establishments.														
Manufacturing:																
Assemblers	12		3	9								2	1	3	4	2
Assemblers, helpers	3		3							2	1					
Carpenters	1			1							1					
Designers	6		2	4						1		1	1		1	2
Designers (F.)	1		1									1				
Fixture makers	39		19	20							2	2	3	8	24	
Fixture makers, helpers	13		7	6					1	12						
Fixture hangers	17		17						1	1	1	1	1	5	7	
Managers and foremen	11		4	7										2	1	8

Molders	3			3										2	1	
Platers	25		13	12					1	3	2	4	1	7	5	2
Polishers	2		2												2	
Porters and packers	1		1								1					
Repair men	1		1											1		
Spinners	4			4						1		1		1	1	
Teamsters	1		1										1			
Clerical:																
Bookkeepers	4		1	3							1			1	1	1
Bookkeepers (F.)	1		1								1					
Errand boys	4		1	3					2	2						
Office clerks	2		2								1				1	
Office clerks (F.)	1		1									1				
Salesmen	14		10	4							1			5	1	7
Shipping clerks	5		3	2						1		1	1	2		
Solicitors	1		1										1			
Stock clerks	4		4							2		1		1		
Stenographers (F.)	5		5								1	2	1	1		
Totals	181		103	78					5	25	13	17	11	39	49	22
Flouring Mill Products.	7	establishments.														
Manufacturing:																
Engineers	5				3		2								3	2
Firemen	1				1								1			
Managers and foremen	11		4	7								1		1	1	8
Mechanics	7				7								1	2	2	2
Millers	25				25								14		2	9
Millwrights	2		2												2	
Oilers	3				2	1							2	1		
Packers and labelers (F.)	29		29							22	6	1				
Porters and packers	11				3	7	1					1	4	6		
Stablemen	1			1							1					
Teamsters	11			2	9							2	6	3		
Warehousemen	95				95							24	54	11	6	
General help	35		1	2	32							3	29	3		
Clerical:																
Bookkeepers	6			6										1	3	2
Bookkeepers (F.)	1		1												1	
Cashiers	1			1												1
Collectors	1		1										1			
Office clerks	23		10	13						1	1	3	1	5	10	2
Office clerks (F.)	5		5								1	2	2			

TABLE No. 7. CITY OF LOS ANGELES.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical—Continued.																
Salesmen	30		8	22										1	5	24
Shipping clerks	3			1	2									1	1	1
Stenographers	1			1										1		
Stenographers (F.)	3		3								1	1				1
Stock clerks	1				1										1	
Telephone girls	1		1									1				
Totals	312		65	56	180	8	3			23	10	39	115	36	37	52
Foundries.	5	establishments.														
Manufacturing:																
Casting chippers	1			1								1				
Coremakers	7			7								1	3	2		1
Cupolamen	1			1									1			
Foundry helpers	10			10								10				
Machinists	7			7										6		1
Machinists, apprentices	3			3					2	1						
Machinists, helpers	2			2								2				
Managers and foremen	7			7												7
Metal workers	3			3							1		1	1		
Molders	24			24										13	10	1
Molders, helpers	3			3								3				
Patternmakers	2			2												2
Teamsters	1			1								1				
Watchmen	1			1									1			
General help	10			10									9	1		
Clerical:																
Bookkeepers	1			1							1					
Bookkeepers (F.)	3		3										2	1		
Office clerks	1			1										1		
Salesmen	1			1												1
Shipping clerks	1			1									1			

Stenographers	1		1									1			
Stenographers (F.)	1		1								1				
Totals	91		5	86					2	1	3	19	18	25	10	13
Furniture.	11	est	ablis	hmen	ts.											
Manufacturing:																
Assemblers	1				1							1				
Broom makers	6				6								3	1	1	1
Cabinetmakers	27		2	24	1								15		7	5
Finishers	11		1	8	2							2	6	1		2
Lacquerers (F.)	1	1										1				
Machinists	10		8	2							1			3	6	
Managers and foremen	15		1	12	2									2	3	10
Mattress makers	2		2												2	
Metal workers	9		7	1	1							3	1	3	1	1
Mill hands	17			15	2							1	15	1		
Painters	4		4								1	1	1	1		
Platers	1			1											1	
Porters and warehousemen	10			1	9					3	2	2	2	1		
Reed workers	28				28						1	7	7	13		
Sanders	2				2							1				1
Seamstresses	3		3								1	2				
Teamsters	3			3									3			
Upholsterers	4		2	2									2		1	1
Wood workers	26		12	10	4					1	1	3	4	8	8	1
General help	2			2										1	1	
Clerical:																
Bookkeepers	2	1		1							1		1			
Bookkeepers (F.)	5		5							1		1	2	1		
Errand boys	3			3						3						
Salesmen	6			6												6
Saleswomen	1		1										1			
Shipping clerks	5			5									5			
Stenographers (F.)	2		2										1	1		
Totals	206	2	50	96	58					8	8	25	69	37	31	28
Garages and Repair Shops.	10	est	ablis	hmen	ts.											
Manufacturing:																
Blacksmiths	8			8						1			1	2	2	2
Chauffeurs	17		6		11									4	10	3
Machinists	24		1	2	21							2	6	12	3	1
Managers and foremen	6		1	3	1		1							1	1	4

TABLE No. 7. CITY OF LOS ANGELES.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Mechanics	14			14									1	7	5	1
Mechanics, helpers	7			7					1	4	1	1				
Painters	11			11										9	2	
Porters	1			1									1			
Trimmers	4			4										1	2	1
Vulcanizers	7			7							2			4	1	
Washers	7		1	4			2					2		2	3	
Wood workers	4			4											3	1
General help	2			2								2				
Clerical:																
Bookkeepers	1			1												1
Bookkeepers (F.)	2	1	1									1	1			
Office clerks	3			3									1		1	1
Salesmen	2			2												2
Solicitors	1			1										1		
Stenographers (F.)	3		3								3					
Totals	124	1	13	74	33		3		1	5	6	8	11	43	33	17
Glass and Glassware.	5	establishments.														
Manufacturing:																
Art glass workers	25		21	4							1	4	3	12	3	2
Bevelers	15		10	5							1		4	4	6	
Designers	1		1													1
Designers, apprentices	3		3					2		1						
Fixture makers	2		2											2		
Fixture hangers	1		1										1			
Glaziers	18		6	12						1	1	1	5	4	5	1
Glaziers, apprentices	1		1									1				
Managers and foremen	5		5											1		4
Porters and packers	1		1									1				
Teamsters	4		1	3								1	3			

Clerical:																
Bookkeepers	2	-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	1
Bookkeepers (F.)	1	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	-----
Cashiers (F.)	1	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	-----
Salesmen	3	-----	1	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	3
Shipping clerks	1	-----	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
Stenographers	1	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	-----
Stenographers (F.)	1	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	-----
Totals	86	-----	58	28	-----	-----	-----	2	-----	2	3	8	20	24	14	13
Gloves.	1	establishment.														
Manufacturing:																
Cutters (F.)	5	-----	5	-----	-----	-----	-----	-----	-----	-----	1	-----	3	1	-----	-----
Managers and foremen	1	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	-----
Operators (F.)	14	-----	14	-----	-----	-----	-----	-----	3	6	2	3	-----	-----	-----	-----
Clerical:																
Bookkeepers	1	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	-----
Salesmen	2	-----	2	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	-----	1	-----
Stenographers (F.)	1	-----	1	-----	-----	-----	-----	-----	-----	1	-----	-----	-----	-----	-----	-----
Totals	24	-----	24	-----	-----	-----	-----	-----	3	7	4	3	3	2	2	-----
Harness and Saddlery.	3	establishments.														
Manufacturing:																
Leather workers	102	-----	1	100	1	-----	-----	-----	-----	6	26	28	14	20	5	3
Leather workers (F.)	8	-----	8	-----	-----	-----	-----	-----	-----	4	3	1	-----	-----	-----	-----
Managers and foremen	13	-----	-----	13	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	13
Machinists	2	-----	-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	2	-----
Porters and packers	14	-----	-----	14	-----	-----	-----	-----	-----	-----	-----	2	10	2	-----	-----
Clerical:																
Bookkeepers	1	-----	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	-----
Bookkeepers (F.)	3	-----	3	-----	-----	-----	-----	-----	-----	-----	-----	-----	2	-----	1	-----
Cashiers	1	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
Office clerks	3	-----	-----	3	-----	-----	-----	-----	-----	-----	2	-----	-----	-----	1	-----
Salesmen	21	-----	-----	20	-----	1	-----	-----	-----	-----	-----	-----	4	1	-----	16
Shipping clerks	2	-----	-----	2	-----	-----	-----	-----	-----	-----	-----	-----	2	-----	-----	-----
Stenographers (F.)	8	-----	8	-----	-----	-----	-----	-----	-----	-----	1	2	5	-----	-----	-----
Totals	178	-----	21	155	1	1	-----	-----	-----	10	32	33	37	23	10	33

TABLE No. 7. CITY OF LOS ANGELES.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Hats, Caps and Furnishings.	6	establishments.														
Manufacturing:																
Cutters (F.)	3		3							1			2			
Finishers (F.)	8		8						2			6				
Flangers	2		2												1	1
Frame makers	3	3									1	2				
Managers and foremen	3		2	1												3
Operators	15		15						1					10		4
Operators (F.)	39		39						5	8	20	5		1		
Porters and packers	1			1							1					
Teamsters	1		1										1			
Trimmers (F.)	14		14						1	2	5	1	3	2		
Clerical:																
Bookkeepers	1			1												1
Bookkeepers (F.)	1		1							1						
Errand boys	1			1						1						
Office clerks	13		6	7						1	4	5		2	1	
Salesmen	18			18									1	1	4	12
Stenographers (F.)	3	1	2							1		1		1		
Stock clerks	3		3								1		1			1
Totals	129	4	96	29					9	15	32	20	8	17	6	22
Ice.	4	establishments.														
Manufacturing:																
Engineers	17			5	7		5								4	13
Firemen	4				2		2						4			
Managers and foremen	12	2		4		6										12
Mechanics	49		1	18	30							24	5	7	11	2
Oilers	7			2	1		4						1	6		
Stablemen	25			7		3	15					4	18	3		
Teamsters	184		3	44	137						12	25	57	29	51	10
Warehousemen	29				27		2					1	26			2
General help	72		10	22	26	3	11				2	7	41	12	8	2

Clerical:																
Bookkeepers	8	------	------	6	2	------	------	------	------	------	------	1	2	2	1	2
Cashiers	1	------	------	1	------	------	------	------	------	------	------	------	------	------	------	1
Collectors	2	------	------	1	1	------	------	------	------	------	------	------	------	1	1	------
Office clerks	28	1	------	26	1	------	------	------	------	1	1	1	6	4	7	8
Salesmen	2	------	------	2	------	------	------	------	------	------	------	------	------	------	------	2
Stenographers (F.)	5	------	5	------	------	------	------	------	------	------	1	------	2	1	------	1
Telephone girls	3	------	3	------	------	------	------	------	------	------	2	1	------	------	------	------
Totals	448	3	22	138	234	12	39	------	------	1	18	64	162	65	83	55
Incubators.	2	est	ablis	hmen	ts.											
Manufacturing:																
Carpenters	3	------	------	3	------	------	------	------	------	------	------	------	------	3	------	------
Machinists	2	------	------	------	2	------	------	------	------	------	------	------	2	------	------	------
Managers and foremen	5	------	------	------	5	------	------	------	------	------	------	------	------	3	------	2
Tinners	2	------	------	------	2	------	------	------	------	------	------	2	------	------	------	------
Warehousemen	1	------	------	1	------	------	------	------	------	------	------	------	------	------	1	------
General help	6	------	------	------	6	------	------	------	------	------	3	3	------	------	------	------
Clerical:																
Bookkeepers	1	------	1	------	------	------	------	------	------	------	------	------	------	1	------	------
Bookkeepers (F.)	1	------	1	------	------	------	------	------	------	------	------	------	1	------	------	------
Office clerks	8	------	------	8	------	------	------	------	------	------	------	8	------	------	------	------
Salesmen	4	------	1	3	------	------	------	------	------	------	------	------	1	2	------	1
Stenographers	2	------	2	------	------	------	------	------	------	------	------	------	2	------	------	------
Stenographers (F.)	1	------	1	------	------	------	------	------	------	------	1	------	------	------	------	------
Totals	36	------	6	15	15	------	------	------	------	------	4	13	6	9	1	3
Iron, Structural and Agricultural.	5	est	ablis	hmen	ts.											
Manufacturing:																
Blacksmiths	12	------	------	12	------	------	------	------	------	------	------	------	------	1	8	3
Blacksmiths, apprentices	1	------	------	1	------	------	------	------	------	------	------	1	------	------	------	------
Blacksmiths, helpers	14	------	------	14	------	------	------	------	------	------	------	7	6	1	------	------
Boilermakers	14	------	------	14	------	------	------	------	------	------	------	3	3	2	5	1
Boilermakers, helpers	20	------	------	20	------	------	------	------	------	------	------	20	------	------	------	------
Casting chippers	8	------	------	8	------	------	------	------	------	------	------	5	3	------	------	------
Coremakers	5	------	------	5	------	------	------	------	------	------	------	------	------	5	------	------
Cupolamen	1	------	------	1	------	------	------	------	------	------	------	------	1	------	------	------
Draughtsmen	20	------	------	20	------	------	------	------	------	------	------	1	2	5	9	3
Draughtsmen, apprentices	4	------	------	4	------	------	------	------	1	1	2	------	------	------	------	------
Electricians	14	------	------	14	------	------	------	------	------	------	------	------	------	6	7	1
Electricians, helpers	9	------	------	9	------	------	------	------	------	------	------	5	4	------	------	------
Engineers	3	------	------	1	------	------	2	------	------	------	------	------	------	2	------	1

TABLE No. 7. CITY OF LOS ANGELES.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Firemen	5			3			2						2	1	2	
Flaskmakers	2			2										2		
Foundry helpers	2			2								2				
Machine hands	57			57							16	20	12	1	6	2
Machinists	62			62									4	34	24	
Machinists, apprentices	9			9					4	3	2					
Machinists, helpers	34			34								27	7			
Managers and foremen	40			40											1	39
Mechanics	9		1	6	2							3	1	1	3	1
Molders	15			15										5	10	
Molders, apprentices	3			3						2			1			
Molders, helpers	25			25								11	14			
Patternmakers	6			6										1	5	
Patternmakers, apprentices	5			5					1		2	1	1			
Sheet metal workers	41			41								2	18	15	6	
Sheet metal workers, apprentices	5			5						4	1					
Sheet metal workers, helpers	26			26						1	25					
Structural iron workers	253			249	4							41	56	64	60	32
Structural iron workers, apprentices	1			1						1						
Structural iron workers, helpers	80			80								60	20			
Tank builders	55			55										15	40	
Teamsters	7			4		3						1	4	1		1
Watchmen	37			33		2	2					1	2	19	15	
General help	72			43	29							51	20	1		
Clerical:																
Bookkeepers	7		1	6							1		2			4
Bookkeepers (F.)	1		1										1			
Office clerks	39			39					1	1	4	9	7		6	11
Office clerks (F.)	3		3									2		1		
Salesmen	10			10										1		9
Shipping clerks	2			2										1	1	
Stenographers	2		1	1								1		1		
Stenographers (F.)	4		4										4			

Stock clerks	1			1								1			
Telephone girls (F.)	1		1								1				
Totals	1046		12	988	35	5	6		7	13	54	275	195	186	208	108
Jewelry.	8	establishments.														
Manufacturing:																
Gem cutters	6			6								2	2	1		1
Jewelers	66			66							4	5	11	13	18	15
Jewelers (F.)	1		1										1			
Jewelers, apprentices	8			8					2	5	1					
Managers and foremen	5			5											1	4
Opticians	1			1												1
Polishers	1			1								1				
Porters and packers	2	1		1						1		1				
Watchmakers	3			3									1	1		1
Clerical:																
Bookkeepers	1			1												1
Bookkeepers (F.)	4		4								1	1	2			
Errand boys	3			3						3						
Office clerks	2			2						1						1
Office clerks (F.)	1		1							1						
Salesmen	6			6								1	2		1	2
Saleswomen (F.)	3		3									2		1		
Stenographers (F.)	3		3							1	1	1				
Stock clerks (F.)	3		3							1		2				
Totals	119	1	15	103					2	13	7	16	19	16	20	26
Laundries, Hand.	3	establishments.														
Manufacturing:																
Drivers	4			2	2						1			2		1
Engineers	2			1	1									1		1
Ironers, hand	4				4						3		1			
Ironers, hand (F.)	9		9							6	3					
Managers and foremen	2			1	1										1	1
Markers and distributors	1				1								1			
Seamstresses (F.)	2		2							2						
Washroom hands	2			1	1						1				1	
General help	1				1					1						
Totals	27		11	5	11					9	8		2	3	2	3

TABLE No. 7. CITY OF LOS ANGELES.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Laundries, Steam.	25	establishments.														
Manufacturing:																
Cleaners	2	------	------	2	------	------	------	------	------	------	------	------	1	1	------	------
Drivers	268	28	------	222	18	------	------	------	------	1	64	36	41	54	19	53
Engineers	25	------	1	9	13	1	1	------	------	------	------	------	2	8	8	7
Firemen	9	------	1	6	2	------	------	------	------	1	2	1	3	1	------	1
Ironers, hand	13	------	5	8	------	------	------	------	------	------	------	6	3	3	1	------
Ironers, hand (F.)	336	------	336	------	------	------	------	------	7	129	137	32	27	4	------	------
Ironers, machine	10	------	------	10	------	------	------	------	------	------	4	1	3	1	------	1
Ironers, machine (F.)	290	------	290	------	------	------	------	------	------	145	110	31	4	------	------	------
Machinists	2	------	------	------	2	------	------	------	------	------	------	------	------	------	------	2
Managers and foremen	48	------	------	42	6	------	------	------	------	------	------	------	3	8	2	35
Managers and forewomen (F.)	12	------	12	------	------	------	------	------	------	1	4	1	4	2	------	------
Manglers	50	------	7	43	------	------	------	------	------	24	13	5	5	2	1	------
Manglers (F.)	541	------	541	------	------	------	------	------	85	451	5	------	------	------	------	------
Markers and distributors	205	------	28	173	4	------	------	------	------	19	23	42	88	20	10	3
Markers and distributors (F.)	93	------	93	------	------	------	------	------	4	12	27	30	16	4	------	------
Porters and watchmen	15	------	------	7	1	------	7	------	------	------	4	5	3	3	------	------
Pressers	3	------	------	3	------	------	------	------	------	------	------	------	2	1	------	------
Pressers (F.)	3	------	3	------	------	------	------	------	------	------	------	2	1	------	------	------
Seamstresses (F.)	28	------	28	------	------	------	------	------	------	17	10	1	------	------	------	------
Shakers	61	------	------	46	15	------	------	------	------	40	17	2	1	1	------	------
Shakers (F.)	65	------	65	------	------	------	------	------	10	54	1	------	------	------	------	------
Shirt folders (F.)	68	------	68	------	------	------	------	------	16	42	6	4	------	------	------	------
Shirt finishers	4	------	------	4	------	------	------	------	------	------	------	------	2	2	------	------
Shirt finishers (F.)	42	------	42	------	------	------	------	------	------	18	15	8	1	------	------	------
Stablemen	7	------	------	2	5	------	------	------	------	------	1	2	2	2	------	------
Starchers	34	------	3	31	------	------	------	------	1	11	9	3	6	4	------	------
Starchers (F.)	66	------	66	------	------	------	------	------	1	30	30	5	------	------	------	------
Washroom hands	145	------	4	104	25	3	9	------	------	1	43	35	38	22	4	2
Wrappers (F.)	1	------	1	------	------	------	------	------	------	1	------	------	------	------	------	------
General help	20	------	------	18	2	------	------	------	------	------	14	4	2	------	------	------
General help (F.)	7	------	7	------	------	------	------	------	------	5	2	------	------	------	------	------

Clerical:																
Bookkeepers	12	1	------	10	1	------	------	------	------	1	------	------	1	1	------	9
Bookkeepers (F.)	13	------	13	------	------	------	------	------	------	3	2	2	2	2	1	1
Cashiers	1	------	------	1	------	------	------	------	------	------	------	------	------	------	1	------
Collectors	3	------	------	3	------	------	------	------	------	------	------	------	1	2	------	------
Office clerks	6	------	3	3	------	------	------	------	------	------	3	------	1	1	1	------
Office clerks (F.)	173	------	173	------	------	------	------	------	40	90	33	8	2	------	------	------
Solicitors	1	------	1	------	------	------	------	------	------	------	------	------	------	------	------	1
Stenographers (F.)	7	------	7	------	------	------	------	------	------	2	3	2	------	------	------	------
Telephone girls (F.)	1	------	1	------	------	------	------	------	------	------	1	------	------	------	------	------
Totals	2690	29	1799	747	94	4	17	------	164	1098	583	268	265	149	48	115
Leather and Leather Goods.	6	establishments.														
Manufacturing:																
Artists (F.)	9	------	9	------	------	------	------	------	------	6	2	1	------	------	------	------
Cutters	12	------	8	4	------	------	------	------	------	1	1	1	1	7	1	------
Leather workers	15	------	12	3	------	------	------	------	------	1	2	3	9	------	------	------
Leather workers (F.)	67	------	67	------	------	------	------	------	7	3	53	4	------	------	------	------
Managers and foremen	7	------	1	2	4	------	------	------	------	------	------	------	------	1	------	6
Managers and forewomen (F.)	5	------	5	------	------	------	------	------	------	------	1	4	------	------	------	------
Tanners	28	------	------	------	28	------	------	------	------	------	------	10	18	------	------	------
Wool pullers	35	------	------	------	35	------	------	------	------	------	------	20	15	------	------	------
Clerical:																
Bookkeepers	2	------	------	2	------	------	------	------	------	------	------	1	------	------	------	1
Salesmen	2	------	------	2	------	------	------	------	------	------	------	------	1	------	------	1
Stenographers (F.)	4	------	4	------	------	------	------	------	------	------	1	2	1	------	------	------
Totals	186	------	106	13	67	------	------	------	7	11	60	46	45	8	1	8
Liquors, Malt.	6	establishments.														
Manufacturing:																
Brewers	15	------	15	------	------	------	------	------	------	------	------	------	------	------	15	------
Brewers, apprentices	1	------	1	------	------	------	------	------	------	------	------	------	------	1	------	------
Brewmasters	4	------	4	------	------	------	------	------	------	------	------	------	------	------	------	4
Bottlers	117	------	117	------	------	------	------	------	------	------	------	------	18	96	2	1
Cellarmen	19	------	19	------	------	------	------	------	------	------	------	------	------	------	19	------
Drivers, bottle	57	------	32	25	------	------	------	------	------	------	------	------	------	41	14	2
Drivers, keg	17	------	10	4	------	3	------	------	------	------	------	------	------	1	16	------
Engineers	21	------	21	------	------	------	------	------	------	------	------	------	------	2	5	14
Firemen	4	------	4	------	------	------	------	------	------	------	------	------	------	4	------	------
Managers and foremen	22	------	12	10	------	------	------	------	------	------	------	------	------	------	------	22
Mechanics	18	------	18	------	------	------	------	------	------	------	------	------	------	4	9	5
Porters and packers	2	------	1	1	------	------	------	------	1	------	------	------	------	------	------	1

TABLE No. 7. CITY OF LOS ANGELES.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Stablemen	15		9	6										11	3	1
General help	10		10									3	2	5		
Clerical:																
Bookkeepers	16		15	1									2	2	3	9
Collectors	3		3												2	1
Office clerks	12		7	5								2	6	2	1	1
Shipping clerks	7		7											4	1	2
Salesmen	9		9													9
Stenographers (F.)	3		3										2	1		
Stock clerks	1		1										1			
Telephone girls (F.)	1		1									1				
Totals	374		319	52		3			1			6	31	174	90	72
Lithographing.	4	establishments.														
Manufacturing:																
Bindery girls (F.)	48		48						10	25	11	2				
Bookbinders	18		18						1	2	1	2	2	6	4	
Bookbinders, apprentices	6		6						3	1	2					
Compositors	20		10	10								4	5	2	6	3
Compositors, apprentices	6		1	5					2	1	2	1				
Engravers	12		8	4								1		2	1	8
Engravers, apprentices	3		1	2					3							
Linotype operators	2		1	1												2
Lithographers	5		5													5
Lithographers, apprentices	3		3								2		1			
Managers and foremen	13		11	2												13
Paper cutters	3		2	1									1	1		1
Porters and packers	6		3		1		2					5	1			
Press feeders	27		19	8						1	4	10	9	3		
Pressmen	15		9	6									2	2	2	9
Pressmen, apprentices	5		2	3					2	3						
Proofreaders (F.)	1		1									1				

Teamsters	2	------	1	1	------	------	------	------	------	1	------	------	1	------	------	------
Wrappers (F.)	2	------														
General help	8	------	2	------	------	------	------	------	------	2	------	------	------	------	------	------
			8	------	------	------	------	------	------	1	1	------	2	------	------	4
Clerical:																
Bookkeepers	4	------	1	2	1	------	------	------	------	------	------	1	------	------	------	3
Bookkeepers (F.)	2	------	2	------	------	------	------	------	------	------	------	------	------	------	------	2
Cashiers (F.)	1	------	1	------	------	------	------	------	------	------	------	------	------	1	------	------
Errand boys	4	------	4	------	------	------	------	------	1	3	------	------	------	------	------	------
Office clerks	8	------	------	8	------	------	------	------	------	2	------	2	3	------	1	------
Office clerks (F.)	5	------	5	------	------	------	------	------	------	------	3	1	1	------	------	------
Salesmen	26	------	13	13	------	------	------	------	------	------	------	2	5	2	1	16
Shipping clerks	2	------	2	------	------	------	------	------	------	------	------	1	1	------	------	------
Solicitors	3	------	3	------	------	------	------	------	------	1	------	------	------	------	------	2
Stenographers (F.)	6	------	6	------	------	------	------	------	------	------	1	1	3	1	------	------
Stock clerks	2	------	------	2	------	------	------	------	------	------	------	------	1	1	------	------
Stock clerks (F.)	2	------	2	------	------	------	------	------	1	------	1	------	------	------	------	------
Telephone girls (F.)	4	------	4	------	------	------	------	------	------	1	1	2	------	------	------	------
Totals	274	------	202	68	2	------	2	------	23	44	29	36	38	21	15	68
Lumber and Milling.	12	establishments.														
Manufacturing:																
Bench hands	116	------	1	115	------	------	------	------	------	------	------	------	------	62	54	------
Blacksmiths	19	------	2	17	------	------	------	------	------	------	3	------	------	4	9	3
Cabinetmakers	40	------	------	40	------	------	------	------	------	------	------	------	------	16	24	------
Cabinetmakers, apprentices	1	------	------	1	------	------	------	------	------	------	------	1	------	------	------	------
Cabinetmakers, helpers	11	------	------	11	------	------	------	------	------	------	------	11	------	------	------	------
Carpenters	46	------	15	31	------	------	------	------	------	------	------	2	6	34	3	1
Draughtsmen	6	------	------	6	------	------	------	------	------	------	------	------	2	------	3	1
Engineers	5	------	1	4	------	------	------	------	------	------	------	------	------	------	2	3
Estimaters	5	------	------	5	------	------	------	------	------	------	------	------	------	------	1	4
Firemen	4	------	1	3	------	------	------	------	------	------	------	------	------	2	2	------
Glaziers	9	------	------	9	------	------	------	------	------	1	------	------	1	5	2	------
Glue workers	9	------	------	9	------	------	------	------	------	------	1	2	4	1	1	------
Lumber hands	636	------	------	636	------	------	------	------	------	------	------	156	354	126	------	------
Managers and foremen	77	------	2	75	------	------	------	------	------	------	------	------	------	------	31	46
Mill hands	135	------	5	130	------	------	------	------	------	8	19	63	31	12	2	------
Millwrights	8	------	2	6	------	------	------	------	------	------	------	------	------	1	3	4
Oilers	1	------	------	1	------	------	------	------	------	------	------	------	1	------	------	------
Planers	17	------	2	15	------	------	------	------	------	------	------	------	3	11	3	------
Porters	6	------	------	5	------	------	1	------	------	------	------	------	3	3	------	------
Sanders	18	------	1	17	------	------	------	------	------	------	------	5	7	4	2	------
Sash and door makers	33	------	------	33	------	------	------	------	------	------	------	8	12	6	7	------
Sawyers	49	------	3	46	------	------	------	------	------	------	------	------	13	26	10	------

TABLE No. 7. CITY OF LOS ANGELES.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Stablemen	2			2									1	1		
Stair builders	5			5										1	4	
Stickers	54		7	47							1	1	4	25	21	2
Tallymen	60		2	58									47	5	4	4
Teamsters	128			128							2	13	83	20	10	
Timekeepers	1			1											1	
Varnishers and finishers	27			27							2			25		
Woodturners	6		1	5										4	1	1
General help	42		12	36						6	7	8	11	6	4	
Clerical:																
Bookkeepers	18		1	17									1	5	3	9
Bookkeepers (F.)	3	1	2						1			1			1	
Cashiers	1		1											1		
Cashiers (F.)	1		1													1
Collectors	3			3							1			1		1
Office clerks	70		9	61							5		13	17	14	21
Office clerks (F.)	4		4								1		2	1		
Salesmen	24			24									1	4	10	9
Saleswomen (F.)	1		1													1
Solicitors	4		4													4
Stenographers	5		5										2	3		
Stenographers (F.)	5		5										1	4		
Telephone girls (F.)	4		4							1	3					
Totals	1719	1	94	1623			1		1	16	45	271	603	436	232	115
Machinery and Machine Shop Products.	41	establishments.														
Manufacturing:																
Blacksmiths	19			19								1	1	4	4	9
Blacksmiths, apprentices	3			3								3				
Blacksmiths, helpers	27			27								2	14	11		
Boilermakers	7			6	1									1	4	2
Boilermakers, helpers	22			22								12	10			

Braziers	2			2										1	1		
Casting chippers	17			17								5	7	4	1		
Coremakers	10			10									1		7	2	
Cupolamen	3			3										3			
Draughtsmen	5		1	4										1		2	2
Draughtsmen, apprentices	1			1						1							
Engineers	3			3											2	1	
Erectors	6		6														6
Foundry helpers	10		3	7								2		5	2	1	
Machine hands	18		8	10							3	3	3	5	4		
Machinists	210		12	195	3								2	22	65	73	48
Machinists, apprentices	28			28						3	8	6	5	5	1		
Machinists, helpers	48		4	44							4	6	18	19	1		
Managers and foremen	62		8	53	1											11	51
Mechanics	46			46									1	5	24	12	4
Molders	23			23									3		4	15	1
Molders, apprentices	4			4						1		3					
Molders, helpers	9			9									9				
Patternmakers	5		1	4									1			3	1
Patternmakers, apprentices	2			2							1	1					
Porters	7			3			4							3		4	
Pump-fitters	5			5										4	1		
Range makers	1			1											1		
Sheet metal workers	5		5													5	
Sheet metal workers, helpers	3			3							3						
Steamfitters	14		14													4	10
Steamfitters, helpers	15		15										6	6	3		
Teamsters	9		1	8										5	3	1	
Tinsmiths	5		5													5	
General help	32			23	9						1		21	10			
Clerical:																	
Bookkeepers	17		1	15	1							1		3	3	4	6
Bookkeepers (F.)	10		10									1	2	3	2		2
Buyers	1			1													1
Cashiers (F.)	1		1														1
Collectors	2			1	1										1		1
Errand boys	3			3							3						
Office clerks	26			26							2	2	2	5	6	1	8
Office clerks (F.)	6		6									2	1		3		
Salesmen	22		4	18											1	4	17
Shipping clerks	8		1	7								2	2	1	3		
Stock clerks	12		2	10								3	2	2	3		2
Stenographers	2			2										2			

TABLE No. 7. CITY OF LOS ANGELES.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical—Continued.																
Stenographers (F.)	17	1	16							2	3	5	5	2		
Telephone girls (F.)	2		2								2					
Totals	815	1	126	668	16		4		5	27	42	109	144	160	156	172
Mattresses, Pillows and Bedding.	4	establishments.														
Manufacturing:																
Cotton workers	1			1							1					
Cutters (F.)	3		3								1	1	1			
Finishers	3			3									3			
Machinists	1			1											1	
Managers and foremen	8		5	3											1	7
Mattress makers	41		12	29								8	4	17	8	4
Mattress makers, apprentices	2			2							2					
Mattress makers, helpers	14		4	10						4	3	2	2	2	1	
Mechanics	1			1											1	
Porters	10			10								10				
Seamstresses (F.)	28		28							12	5	11				
Shade makers	3			3						1	1		1			
Teamsters	7			7								6	1			
Upholsterers	31		23	8									4	24	2	1
Wire workers	10		8	2								5		3		2
Wood workers	9			9						2		5	2			
Clerical:																
Bookkeepers (F.)	2		2								1					1
Errand boys	1			1						1						
Office clerks	3			3						2			1			
Office clerks (F.)	1		1													1
Salesmen	5			5										1		4
Shipping clerks	8			8						1		2	4			1
Stenographers (F.)	5		5								1	4				
Totals	197		91	106						23	15	54	23	47	14	21

Millinery.	1	establishment.														
Manufacturing:																
Finishers (F.)	2		2								2					
Hat makers	3		3											2	1	
Clerical:																
Bookkeepers (F.)	1		1									1				
Salesmen	1		1													1
Totals	7		7								2	1		2	1	1
Moldings, Picture.	2	establishments.														
Manufacturing:																
Managers	1			1												1
General help	35		1	34					1	2	3	4	10	11	3	1
Clerical:																
Bookkeepers (F.)	1		1										1			
Errand boys	1			1						1						
Salesmen	5			5										1	1	3
Saleswomen	3		3									3				
Stenographers (F.)	1		1								1					
Totals	47		6	41					1	3	4	7	11	12	4	5
Newspapers.	9	establishments.														
Manufacturing:																
Artists, photographers, etc.	37		27	10							4	1	1	5	3	23
Artists (F.)	1		1											1		
Bindery girls	6		6							6						
Carpenters	2		2												1	1
Carriers	43		43					1	3	2	3	8	11	6	5	4
Compositors	156		114	42									5	7	3	141
Compositors (F.)	1		1									1				
Compositors, apprentices	13		9	4				2		2	1	3	3		2	
Copy holders (F.)	5		5											5		
Electricians	21		13	8							1	1	4	4	9	2
Engravers	16		16													16
Engravers, apprentices	1		1							1						
Linotype operators	145		104	41									2			143
Linotype operators (F.)	4		4											2		2
Linotype operators, apprentices	11		2	9						2	3	4	1		1	
Machinists	14		8	6								3		2	1	8
Mailing room hands	74		51	23					14	9	12	6	6	4	16	7

TABLE No. 7. CITY OF LOS ANGELES.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Managers and foremen	67		50	17											1	66
Paper cutters	1		1												1	
Porters	20		14	4			2		2			8	7	3		
Press feeders	9		9									9				
Pressmen	95		72	23								12	9	4	8	62
Pressmen, apprentices	19		19					1		2	1	3	5	5		2
Proof readers	25		12	13								3	2	1	2	17
Proof readers (F.)	12		12								1	6			1	4
Reporters and editors	202		157	45				4	5	8	6	6	13	17	10	133
Reporters (F.)	5		5									2			1	2
Stereotypers	30		20	10							2	1	3	4	10	10
Stereotypers, helpers	11		11							1			1	7	2	
Teamsters	7		7					2					2	1	2	
General help	4		4							1			1	2		
Clerical:																
Bookkeepers	34		30	4								1	8	13	1	11
Bookkeepers (F.)	16		16								9	2	3	1	1	
Collectors	10		3	7								1		5	1	3
Errand boys	18		18						2	13	2	1				
Office clerks	205	4	185	16					12	21	17	47	48	24	8	28
Office clerks (F.)	58		58								21	11	3	22		1
Solicitors	153		64	89						5	10	12	12	26	25	63
Solicitors (F.)	3		3								3					
Stenographers	7		7									2	1	2		2
Stenographers (F.)	19		19							1	3	1	7	3	3	1
Stock clerks	1		1										1			
Telephone girls	5		5								4	1				
Totals	1586	4	1209	371			2	10	38	74	103	156	159	176	118	752
Oils, Producing and Refining.	10	establishments.														
Manufacturing:																
Chemists	2			1			1								1	1

Drillers	40				9		31								2	38
Drillers, helpers	6				6										6	
Engineers	8			1			7							3	3	2
Gaugers	4			4											2	2
Machinists	10		8	1	1							2		1	2	5
Managers and foremen	33		3	25	3	1	1								4	29
Mechanics	15			15											10	5
Pumpmen	73			41	14	2	16						14	48	11	
Stillmen	9		3		2		4								4	5
Teamsters	42			15	27							13	20	6	2	1
Tool dressers	59		2	2	7		48							14	42	3
Watchmen	2			2									1		1	
General help	160			104	53	3						42	75	4	38	1
Clerical:																
Bookkeepers	11		5	6									1	3	2	5
Bookkeepers (F.)	3		3										1			2
Cashiers	1		1											1		
Draughtsmen	2		2												1	1
Errand boys	2		1	1						1	1					
Office clerks	28		28									1	5	5	7	10
Salesmen	1			1												1
Stenographers (F.)	10		10										5	4	1	
Telephone girls	1		1									1				
Totals	522		67	219	122	6	108			1	1	59	122	89	139	111
Paints, Varnishes, etc.	6	establishments.														
Manufacturing:																
Glaziers	3			3										3		
Labelers (F.)	2		2							2						
Managers and foremen	26		19	6	1									17		9
Paint makers	2				2										1	1
Paint makers, helpers	11			6	5				1	2	1	4	2	1		
Porters	5			5							2		3			
Teamsters	9			6	3							1	4	3		1
Warehousemen	3			3											3	
General help	56		41	15							1	48		6		1
Clerical:																
Bookkeepers	6			4	2							1	1	1		3
Bookkeepers (F.)	1		1										1			
Cashiers	2			2										1		1
Collectors	1			1												1

TABLE No. 7. CITY OF LOS ANGELES.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical—Continued.																
Office clerks	11		1	2	8						3	3	1	1	2	1
Office clerks (F.)	7		7								4		2			1
Salesmen	32		19	13										1	2	29
Shipping clerks	3			3								1	1	1		
Stenographers (F.)	7		7								1	1	2	3		
Stock clerks	5			5								3		1		1
Telephone girls	1		1								1					
Totals	193		98	74	21				1	4	13	62	17	39	8	49
Pastes, Macaroni, etc.	1	establishment.														
Manufacturing:																
Macaroni makers	9		9								2		5	2		
Packers (F.)	14		14							11		3				
Clerical:																
Salesmen	4		4												4	
Totals	27		27							11	2	3	5	2	4	
Patterns and Models.	4	establishments.														
Manufacturing:																
Machinists	4			4									2		2	
Managers and foremen	4		1	3												4
Patternmakers	17		4	13												17
Patternmakers, apprentices	2			2						2						
Clerical:																
Bookkeepers	1			1									1			
Totals	28		5	23						2			3		2	21

Pennants and Sporting Goods.	4	establishments.														
Manufacturing:																
Artists	1			1												1
Managers and foremen	4			4												4
Managers and forewomen	1		1									1				
Operators (F.)	21		21						2	8	11					
Porters	1			1								1				
Seamstresses	19		19							11	6	1	1			
General help	2		2							2						
Clerical:																
Bookkeepers (F.)	4		4									3		1		
Cashiers (F.)	1		1									1				
Errand boys	2			2					1	1						
Salesmen	12			12						2				5	3	2
Solicitors	2			2							1					1
Stenographers (F.)	1		1									1				
Totals	71		49	22					3	24	18	8	1	6	3	8
Photographs.	5	establishments.														
Manufacturing:																
Blue print makers	6			6						2	2		1	1		
Embossers (F.)	1		1							1						
Finishers	3			3							2		1			
Finishers (F.)	12		12							4	2	3	3			
Managers and foremen	4			4												4
Photographers	4			4									1	1		2
Porters	3			3								2	1			
Photograph printers	7			7									1	2		4
Photograph printers (F.)	1		1							1						
Retouchers	6			6										4		2
Retouchers (F.)	4		4										1	3		
General help (F.)	1		1								1					
Clerical:																
Bookkeepers	3		1	2										1		2
Bookkeepers (F.)	3		3								2			1		
Errand boys	2			2					1	1						
Office clerks (F.)	6		6								1	1	1		1	2
Salesmen	6			6									2			4
Saleswomen	2		2							1		1				
Shipping clerks	1			1										1		

TABLE No. 7. CITY OF LOS ANGELES.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical—Continued.																
Stenographers (F.)	2		2								2					
Stock clerks	1			1								1				
Totals	78		33	45					1	10	12	8	12	14	1	20
Pickles, Preserves, Sauces, etc.	4	establishments.														
Manufacturing:																
Engineers	2			1	1								2			
Managers and foremen	4		1	2	1										2	2
Machinists	2				2								2			
Packers and labelers (F.)	13		13						2	6	2	3				
Teamsters	4			3	1						2	1	1			
Vinegar makers	3			3										3		
General help	14		3	2	9				1	2		9	1		1	
Clerical:																
Bookkeepers	1			1												1
Bookkeepers (F.)	2		2										1	1		
Office clerks	3			3								1	2			
Salesmen	3			3											1	2
Shipping clerks	1		1												1	
Stenographers (F.)	1		1									1				
Totals	53		21	18	14				3	8	4	15	9	4	5	5
Plating.	2	establishments.														
Manufacturing:																
Burnishers	1			1						1						
Managers and foremen	2		1	1											1	1
Platers	1			1										1		
Polishers	2		2											2		
Polishers, helpers	2		2							1		1				

Clerical:																
Bookkeepers (F.)	1		1													1
Errand boys	1			1						1						
Office clerks	1			1										1		
Totals	11		6	5						3		1		4	1	2
Plumbing, Steam and Gas Fitting.	9	establishments.														
Manufacturing:																
Composition men (bath tub)	18		18									6				12
Estimators	1		1													1
Machinists	2			2										2		
Managers and foremen	9		5	4										1		8
Molders	4			4										4		
Molders, helpers	2			2								2				
Plumbers	55		44	11										6	6	43
Plumbers, apprentices	2		2							1			1			
Plumbers, helpers	15		12	3					3	7	4		1			
Riveters	35			35									20	8	7	
Riveters, helpers	28			28								28				
Steam fitters	11		10	1											1	10
Steam fitters, helpers	9		9									7	2			
Teamsters	2		2										2			
General help	5		2	3								5				
Clerical:																
Bookkeepers	3		1	2											1	2
Bookkeepers (F.)	1		1								1					
Salesmen	2		1	1										1		1
Stenographers (F.)	1		1											1		
Stock clerks	1		1												1	
Totals	206		110	96					3	8	5	48	26	23	16	77
Printing and Binding.	65	establishments.														
Manufacturing:																
Bindery girls	124		124						9	63	49	1	1	1		
Bookbinders	46		42	4						2	1	1	6	20	8	8
Bookbinders, apprentices	13		13						1	7	4	1				
Compositors	120		84	33	3						1	11	12	27	49	20
Compositors (F.)	8		8									4	3		1	
Compositors, apprentices	12		8	2	2				2	2	2	4	2			
Die stampers	2		2							1				1		
Die stampers (F.)	4		4							1		3				

TABLE No. 7. CITY OF LOS ANGELES.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Embossers	4		4								1			2	1	
Embossers (F.)	2		2								2					
Embossers, apprentices	3		3						2	1						
Engravers	19		15	4										1	12	6
Engravers, apprentices	4		4					2	1	1						
Linotype operators	26		26												1	25
Linotype operators, apprentices	1		1								1					
Machinists	2			2												2
Managers and foremen	70		50	17	3										3	67
Managers and forewomen	1		1													1
Packers (F.)	2		2						1	1						
Paper cutters	14		7	4	3							1	3	5	4	1
Paper rulers	12		9	3						1		2	3	4	2	
Paper rulers (F.)	3		3							3						
Photographers and artists	5		5											1	1	3
Plate feeders (F.)	1		1						1							
Plate printers	10		10							1	2	2	1	1	3	
Press feeders	103		68	22	13				2		19	48	30	4		
Press feeders (F.)	12		12						4		6	2				
Pressmen	74		42	20	12							12	11	23	17	11
Pressmen, apprentices	6		3	3						3	3					
Proofreaders (F.)	4		4									1	2			1
Porters	6			4	2							2	1			3
Stereotypers	3			3											3	
Stereotypers, apprentices	1			1						1						
Teamsters	1		1							1						
General help	7		7							4	1	1		1		
Clerical:																
Bookkeepers	10		7	3									1	5		4
Bookkeepers (F.)	23	1	22							1	7	5	6	3		1
Cashiers	2			2												2
Errand boys	32		23	9					8	24						
Office clerks	3		3							1	1	1				

Office clerks (F.)	6	1	5							1	4					1
Salesmen	18		14	4								2	2	1	2	11
Shipping clerks	8		4	4						1	1	2	2	2		
Solicitors	6		3	3									1	2		3
Stenographers (F.)	26		26							4	8	8	4	1	1	
Stock clerks	2		1	1								1				1
Totals	861	2	673	148	38			2	31	125	113	115	91	105	108	171
Restaurants.	155	establishments.														
Manufacturing:																
Bakers	46		3	19	21	2	1				1	1	13	13	11	7
Bakers (F.)	22	1	21							9	4	6	2	1		
Bakers, apprentices	1			1						1						
Bakers, helpers	14			4	9	1				3	6	4	1			
Bartenders	14				14					1	1	3	4	2	2	1
Bus boys	131	2	24	60	35	7	3		5	61	62	3				
Candy makers	1			1										1		
Cashiers	18		3	5	9	1				4	1	3	8			2
Cashiers (F.)	108	22	86						3	52	46	2	5			
Cooks	325	2	18	20	216	35	34		1	5	20	54	74	91	28	52
Cooks (F.)	16	3	13						1		3	5	2	4		1
Cooks, helpers	122	2	5	12	70	23	10		2	41	36	23	14	3	3	
Cooks, helpers (F.)	3		3							3						
Countermen	13	2		4	7			2			7	3	1			
Engineers	1				1								1			
Kitchen help	491	6	25	42	333	46	39	1	9	159	278	38	3	2		1
Kitchen help (F.)	64	6	58						16	43	4			1		
Linen girls	2		2							2						
Managers and foremen	74		3	15	44	4	8					7	1	5	5	56
Managers and forewomen	7	2	5							2	3	1				1
Meat cutters	5				5						1	1	2		1	
Mechanics	2				2							1		1		
Porters	54	2		4	43	2	3			16	23	13	1			1
Storeroom men	11		1		8	2				7	1	1	1	1		
Teamsters	2			1	1						1	1				
Waiters	556	20	30	67	340	80	19		10	53	260	203	9	8	6	7
Waitresses	730	157	573					2	110	541	60	13	3			1
Clerical:																
Bookkeepers	4		1	2	1					1						3
Bookkeepers (F.)	5	1	4								2	2	1			

TABLE No. 7. CITY OF LOS ANGELES.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical—Continued.																
Office clerks (F.)	1		1									1				
Salesmen	4	2				2			1	1			2			
Totals	2847	230	879	257	1159	205	117	5	158	1005	820	389	148	133	56	133
Rubber Goods.	2	establishments.														
Manufacturing:																
Engineers	1			1									1			
Machinists	1			1									1			
Managers and foremen	2			2									1			1
Operators (F.)	4		4							4						
Vulcanizers, rubber workers, etc.	22			22						3	2	7	4	5	1	
Clerical:																
Salesmen	1			1									1			
Stenographers (F.)	1		1									1				
Totals	32		5	27						7	2	8	8	5	1	1
Safes and Vaults.	1	establishment.														
Manufacturing:																
Draughtsmen	1		1										1			
Iron workers	4		4											2	2	
Locksmiths	2		2									1		1		
Clerical:																
Bookkeepers (F.)	1		1												1	
Salesmen	2		2												1	1
Stenographers (F.)	1		1										1			
Totals	11		11									1	2	3	4	1

Slaughtering and Meat Packing.	5	est	ablis	hmen	ts.											
Manufacturing:																
Coolermen	4			2	2							1	3			
Engineers	5				2		3								2	3
Firemen	4						4						4			
Killers and dressers	53				53						15	8	2	24	4	
Killers and dressers, apprentices	30				30						20	10				
Laundresses	3		3								2	1				
Managers and foremen	28			5	23										1	27
Meat cutters	30				11	19						1	6	19	1	3
Mechanics, coopers, etc.	61				61					6	1	19	7	16	9	3
Packers (F.)	13	1	12							11	2					
Porters and packers	181			3	177		1				36	111	22	6	4	2
Sausage makers	39				35	4					4	23	7	3		2
Stablemen	18				18							13	4	1		
Teamsters	54			3	45	6						3	31	20		
Timekeepers	2			1	1										1	1
Vaqueros	7				7							2	1	3		1
Wool pullers, hidemen, etc.	15				15							12	2			1
General help	69			2	67						25	41	1	2		
Clerical:																
Bookkeepers	17			11	6							3	3	5	2	4
Buyers	5				5										1	4
Cashiers	1			1											1	
Cashiers (F.)	2		2									2				
Collectors	1			1									1			
Errand boys	3			3						3						
Office clerks	46			46					1	1	1	5	13	12	7	6
Salesmen	67			22	45								16	13	14	24
Shipping clerks	15				15								10	4	1	
Solicitors	4					4							1	1	2	
Stenographers (F.)	10		10							1		2	6	1		
Stenographers	2			2									1	1		
Stock clerks	2				2							1		1		
Telephone girls	3	2	1								2	1				
Totals	794	3	28	102	620	33	8		1	22	108	259	141	132	50	81
Soap, Tallow, and Glue.	1	est	ablis	hmen	t.											
Manufacturing:																
Managers and foremen	7		7											3	2	2
Soap wrappers (F.)	10		10								10					
General help	57		57									43	10	4		

TABLE No. 7. CITY OF LOS ANGELES.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical:																
Office clerks	7		7												2	5
Office clerks (F.)	4		4										3	1		
Shipping clerks	2		2											2		
Totals	87		87								10	43	13	10	4	7
Soda and Mineral Water.	1	establishment.														
Manufacturing:																
Bottlers	2		2									1	1			
Bottlers, helpers	2			2							1	1				
Chemists	1			1												1
Managers and foremen	1			1											1	
Teamsters	1			1								1				
Clerical:																
Salesmen	5			5									2	3		
Stenographers	1		1								1					
Totals	13		3	10							2	3	3	3	1	1
Stencils and Stamps.	4	establishments.														
Manufacturing:																
Assemblers and composers (F.)	6		6								2	1		2	1	
Engravers	9			9										4	3	2
Machinists	1			1										1		
Managers and foremen	8			8												8
Mechanics	2			2									1	1		
Porters	1			1									1			
Sign makers	2			2										1		1
Stamp makers	3			3									1	1	1	
Clerical:				4						2	2					
Bookkeepers	2															
General help	4			2							1			1		

Bookkeepers (F.)	1		1										1			
Collectors	1			1									1			
Errand boys	6			6						6						
Office clerks	1			1									1			
Salesmen	13			13									4	6		3
Shipping clerks	1			1										1		
Stenographers (F.)	2		2								1			1		
Totals	63		9	54						8	6	1	10	19	5	14
Stone and Marble.	1	est	ablis	hmen	t.											
Manufacturing:																
Blacksmiths	5		5													5
Draughtsmen	1		1													1
Engineers	2		2										1		1	
Managers and foremen	2		2													2
Stone cutters	42		42													42
General help	8		8										8			
Totals	60		60										9		1	50
Stoves and Furnaces.	3	est	ablis	hmen	ts.											
Manufacturing:																
Managers and foremen	5		3	2											1	4
Mechanics	4		4											3	1	
Plumbers	1			1										1		
Stove men	2			2									2			
Teamsters	2			2								2				
Tinsmiths	22		21	1							4	2	7	1	7	1
Warehousemen	5			5								2	1	2		
Clerical:																
Office clerks	1		1										1			
Totals	42		29	13							4	6	11	7	9	5
Tailor Shops.	93	est	ablis	hmen	ts.											
Manufacturing:																
Bushelmen	22		3	16	3								2	16	4	
Cutters	53		11	38	4									4	4	45
Dressmakers (F.)	28		28							4	6	12	1	4		1
Fitters (F.)	1		1								1					
Managers and foremen	55		11	44										1	1	53
Managers and forewomen (F.)	2		2													2
Operators	15		8	7									1	5	4	5

TABLE No. 7. CITY OF LOS ANGELES.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Operators (F.)	13		13							1	5	6	1			
Porters	7	1	1	4	1				1			5	1			
Pressers	38		18	20							1	2	4	13	13	5
Seamstresses	20		20							4	5	7	4			
Tailors	406		132	266	8					1	4	16	15	106	149	115
Tailoresses	369		369						16	48	118	120	57	8	2	
Tailoresses, apprentices	9		9					2	4	3						
Tailors, apprentices	2		1	1					1	1						
Tailors, helpers	4			4							3	1				
Clerical:																
Bookkeepers	7		1	6							1		1	2	2	1
Bookkeepers (F.)	22		22							2	4	7	4	5		
Cashiers	1			1							1					
Collectors	1			1									1			
Errand boys	30		2	28					5	16	7	1	1			
Office clerks	2		1	1						1		1				
Office clerks (F.)	9		9						1		4	2	1	1		
Salesmen	46		5	34	7							1		5	6	34
Saleswomen	8		8								1	3	1	2		1
Stenographers (F.)	2		2								2					
Totals	1172	1	677	471	23			2	28	81	163	184	95	172	185	262
Tinware, Sheet Metal, etc.	13	establishments.														
Manufacturing:																
Can makers	89			76	13					6	17	17	16	15	18	
Can makers (F.)	23		23							1	20	2				
Coppersmiths	1		1													1
Laboratory help	1			1										1		
Laboratory help (F.)	1		1							1						
Managers and foremen	23		4	19										1	5	17
Sheet metal workers	221		50	171								14	73	69	64	1
Sheet metal workers, apprentices	4		2	2						1	3					

Sheet metal workers, helpers	17	------	9	8	------	------	------	------	------	------	8	------	4	5	------	------
Teamsters	6	------	2	4	------	------	------	------	------	------	------	1	4	1	------	------
Tinsmiths	21	------	7	14	------	------	------	------	------	3	1	------	10	7	------	------
Tinsmiths, helpers	2	------	------	2	------	------	------	------	------	2	------	------	------	------	------	------
Warehousemen	18	------	------	18	------	------	------	------	------	------	3	11	2	2	------	------
Clerical:																
Bookkeepers	4	------	------	4	------	------	------	------	------	------	------	------	------	------	1	3
Bookkeepers (F.)	2	------	2	------	------	------	------	------	------	------	------	1	1	------	------	------
Buyers	2	------	------	2	------	------	------	------	------	------	------	------	------	------	------	2
Office clerks	17	------	------	17	------	------	------	------	------	------	1	8	1	3	1	3
Office clerks (F.)	1	------	1	------	------	------	------	------	------	------	------	1	------	------	------	------
Salesmen	6	------	------	6	------	------	------	------	------	------	------	1	------	------	------	5
Stenographers	1	------	------	1	------	------	------	------	------	------	------	------	1	------	------	------
Stenographers (F.)	2	------	2	------	------	------	------	------	------	1	------	------	1	------	------	------
Totals	462	------	104	345	13	------	------	------	------	15	53	56	113	104	89	32
Tools, Hardware, etc.	4	establishments.														
Manufacturing:																
Blacksmiths	17	------	------	17	------	------	------	------	------	------	------	------	------	------	2	15
Blacksmiths, helpers	47	------	------	47	------	------	------	------	------	------	------	------	19	24	4	------
Brass finishers	15	------	------	15	------	------	------	------	------	1	2	4	4	2	2	------
Brass polishers	9	------	------	9	------	------	------	------	------	------	------	------	------	9	------	------
Coremakers	16	------	------	16	------	------	------	------	------	------	1	------	6	3	5	1
Cupolamen	15	------	------	15	------	------	------	------	------	------	------	------	14	1	------	------
Draughtsmen	6	------	5	1	------	------	------	------	------	------	------	------	2	------	2	2
Electricians	2	------	------	2	------	------	------	------	------	------	------	------	1	------	1	------
Engineers	5	------	------	5	------	------	------	------	------	------	------	------	1	3	1	------
Foundry helpers	4	------	------	4	------	------	------	------	------	------	------	1	2	------	1	------
Machinists	106	------	------	106	------	------	------	------	------	------	------	1	20	15	55	15
Machinists, apprentices	6	------	------	6	------	------	------	------	------	2	------	3	1	------	------	------
Machinists, helpers	25	------	------	25	------	------	------	------	------	1	1	3	20	------	------	------
Managers and foremen	23	------	8	15	------	------	------	------	------	------	------	------	------	------	3	20
Molders	24	------	------	24	------	------	------	------	------	------	------	------	------	4	18	2
Molders, helpers	25	------	------	25	------	------	------	------	------	------	------	------	24	------	1	------
Patternmakers	4	------	------	4	------	------	------	------	------	------	------	1	------	------	------	3
Platers	5	------	------	5	------	------	------	------	------	1	------	2	------	1	1	------
Teamsters	3	------	------	3	------	------	------	------	------	------	1	1	------	------	------	1
Timekeepers	5	------	------	5	------	------	------	------	------	------	------	1	------	3	------	1
Watchmen	2	------	------	2	------	------	------	------	------	------	------	------	2	------	------	------
General help	19	------	------	19	------	------	------	------	------	------	------	------	19	------	------	------

TABLE No. 7. CITY OF LOS ANGELES.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical:																
Bookkeepers	4		1	3											1	3
Cashiers	1		1													1
Errand boys	1		1								1					
Office clerks	8		8											3		5
Office clerks (F.)	1		1											1		
Salesmen	1			1											1	
Shipping clerks	4		2	2							1				2	1
Stenographers	1			1											1	
Stenographers (F.)	3		3										3			
Telephone girls	1		1							1						
Totals	408		31	377						6	7	17	138	69	101	70
Trunks, Valises, etc.	8	establishments.														
Manufacturing:																
Bag makers	2			2										2		
Box makers	1			1							1					
Managers and foremen	3			3												3
Suitcase makers	14			14					1	3	2	4		4		
Suitcase makers (F.)	6		6								6					
Trunk makers	27			27								2	14	10	1	
Trunk makers, apprentices	1			1						1						
Trunk makers, helpers	2			2						2						
Clerical:																
Salesmen	3			3											1	2
Totals	59		6	53					1	6	9	6	14	16	2	5
Wire and Wire Products.	1	establishment.														
Manufacturing:																
Bench hands	3			3										3		

Fitters	2			2											2	
Managers and foremen	1			1											1	
Stickers	1			1											1	
Totals	7			7										3	4	
Miscellaneous.	21	establishments.														
Manufacturing:																
Artificial limb makers	8		8								1			4		3
Artificial limb makers, helpers (F.)	1		1									1				
Artists (F.)	2		2								1	1				
Button makers	2		1	1							1	1				
Button makers (F.)	6		6							4	2					
Chemists	1			1												1
Engineers, stationary	2				2								2			
Feather dyers	1			1												1
Feather workers (F.)	11		11							2	5	3	1			
Laboratory girls	1		1							1						
Machinists	7			7						1			3	2	1	
Managers and foremen	18		5	12		1							1	1	1	15
Managers and forewomen	1		1											1		
Mechanics	6		1	4		1							1		4	1
Operators, surgical goods	4			4							1	1		1	1	
Optical grinders, etc.	13			13						4	1	1	2	2	2	1
Opticians, manufacturing	5			5												5
Painters	16		1	15									15		1	
Paint makers	2			2										2		
Piano makers	5		5											3	2	
Piano makers, apprentices	1		1										1			
Pipe organ builders	29			29							3	4		8	11	3
Porters	5			3	1		1				1	1	3			
Printers	14		2	12									10	1		3
Seamstresses	3		3								2	1				
Shade makers	3			3								3				
Teamsters	3			2		1						2	1			
Tinsmiths	2			2								1		1		
General help	36		1	34			1			1	1	24	10			
Clerical:																
Bookkeepers	1	1	3	5						1			1		1	6
Bookkeepers (F.)	7		7										4	1		2
Errand boys	6		1	5					1	5						
Office clerks	10		2	8									2	3		5
Office clerks (F.)	5		5							2	1		2			

TABLE No. 7. CITY OF LOS ANGELES.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical—Continued.																
Salesmen	17	------	3	14	------	------	------	------	------	------	------	1	1	5	1	9
Saleswomen	5	------	5	------	------	------	------	------	------	------	2	2	1	------	------	------
Shipping clerks	6	------	------	6	------	------	------	------	------	------	------	------	5	1	------	------
Solicitors	2	------	------	2	------	------	------	------	------	------	------	------	1	------	------	1
Stenographers (F.)	7	1	6	------	------	------	------	------	------	1	2	3	1	------	------	------
Totals	282	2	82	190	3	3	2	------	1	22	24	50	68	36	25	56

TABLE No. 8. CITY OF LOS ANGELES.

Wholesale Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Boots and Shoes.	5	est	ablis	hmen	ts.											
Bookkeepers (F.)	4	------	4	------	------	------	------	------	------	------	------	------	2	------	------	2
Errand boys	3	------	3	------	------	------	------	------	------	2	1	------	------	------	------	------
Office clerks	3	------	1	2	------	------	------	------	------	------	1	1	------	------	------	1
Salesmen	18	------	8	10	------	------	------	------	------	------	------	------	------	2	4	12
Saleswomen	1	------	1	------	------	------	------	------	------	------	------	------	------	1	------	------
Stenographers (F.)	5	------	5	------	------	------	------	------	------	------	1	1	3	------	------	------
Stock clerks	10	------	2	8	------	------	------	------	------	------	------	------	9	1	------	------
Teamsters	4	------	1	3	------	------	------	------	------	1	1	------	1	------	1	------
Totals	48	------	25	23	------	------	------	------	------	3	4	2	15	4	5	15

Building Materials.	8	establishments.														
Bookkeepers	9		4	5									2	4		3
Bookkeepers (F.)	3		3									2				1
Cashiers	2		1	1												2
Cashiers (F.)	1		1												1	
Collectors	1		1													1
Errand boys	1			1						1						
Glaziers	1			1										1		
Managers and foremen	20		7	11	2									3	5	12
Office clerks	5		2	3							1		2	2		
Office clerks (F.)	2		2													2
Porters	5			5								5				
Roofers	17		17									6	11			
Salesmen	22		10	12									3	1	1	17
Shipping clerks	3		2	1							1		1		1	
Stenographers	3			3									3			
Stenographers (F.)	10		10									1	6	3		
Teamsters	5			5								2	3			
Telephone girls	1		1													1
Warehousemen	14			14								2	12			
General help	78			3	75							76	1	1		
Totals	203		61	65	77					1	2	94	44	15	8	39
Butcher Supplies.	3	establishments.														
Bookkeepers	1				1											1
Bookkeepers (F.)	1		1									1				
Cashiers (F.)	2		2							1		1				
Collectors	1			1									1			
Errand boys	1			1						1						
Grinders	2			2											2	
Laboratory help	2			2							1		1			
Managers and foremen	1				1											1
Office clerks	7			4	3					3			1		2	1
Porters	6			6							2	1	2	1		
Salesmen	10		2	4	4						1	3	2	1	3	
Saleswomen	1		1											1		
Shipping clerks	3			3							1		2			
Stenographers	1		1						1							
Stenographers (F.)	1		1									1				
Totals	40		8	23	9				1	5	5	7	9	3	7	3

TABLE No. 8. CITY OF LOS ANGELES.

Wholesale Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Cigars and Cigarettes.	5	establishments.														
Bookkeepers	8		3	5								1	1	1	1	4
Cashiers	1			1												1
Collectors	2		1	1								2				
Managers and foremen	3		2	1												3
Office clerks	8		4	4								1	3	2		2
Office clerks (F.)	7		7							2	2		2			1
Porters	7		2	5							1	2	4			
Salesmen	58		50	8							2	3	10	13	4	26
Saleswomen	4	4								2		2				
Shipping clerks	2		1	1									1		1	
Stenographers (F.)	3		3									2	1			
Stock clerks	4		1	3								1	3			
Teamsters	3		1	2								3				
Totals	110	4	75	31						4	5	17	25	16	6	37
Clothing and Furnishings.	8	establishments.														
Bookkeepers	4		1	3									1		1	2
Bookkeepers (F.)	6		6									3				3
Cutters	4			4								2	1		1	
Errand boys	2			2						2						
Managers and foremen	4			4												4
Office clerks	7			7						2	2	2	1			
Porters and packers	1			1								1				
Salesmen	41		1	40								1		7	5	28
Saleswomen	1		1								1					
Shipping clerks	4		1	3							1		1	2		
Stenographers (F.)	10		10						1			6	2	1		
Stock clerks	26		5	21					2	4	4	3	13			
Tailors	1			1									1			
Teamsters	1			1							1					
Totals	112		25	87					3	8	9	18	20	10	7	37

Commission Merchants.	33	est	ablis	hmen	ts.											
Bookkeepers	24	1	5	2	16	------	------	------	------	------	------	2	6	4	3	9
Bookkeepers (F.)	7	1	6	------	------	------	------	------	------	1	1	------	------	3	------	2
Buyers	3	------	1	------	2	------	------	------	------	------	------	------	------	------	2	1
Cashiers	2	------	2	------	------	------	------	------	------	------	------	------	------	------	------	2
Collectors	5	------	1	------	3	1	------	------	------	------	1	1	1	------	1	1
Errand boys	1	------	1	------	------	------	------	------	------	------	1	------	------	------	------	------
Inspectors	11	------	8	2	1	------	------	------	------	------	------	2	3	------	------	6
Managers and foremen	22	------	11	3	5	------	3	------	------	------	------	------	2	1	------	19
Office clerks	87	------	66	2	18	1	------	------	------	2	6	12	25	23	------	19
Office clerks (F.)	13	------	13	------	------	------	------	------	------	------	------	6	5	1	------	1
Packers (F.)	4	------	4	------	------	------	------	------	------	4	------	------	------	------	------	------
Porters and packers	170	------	2	32	123	1	12	------	------	2	2	44	66	41	3	12
Poultry dressers	4	------	1	3	------	------	------	------	------	------	------	------	2	2	------	------
Salesmen	75	------	17	11	45	------	2	------	------	1	------	2	6	11	15	40
Shipping clerks	16	------	------	6	10	------	------	------	------	------	------	3	4	4	2	3
Solicitors	1	------	------	------	1	------	------	------	------	------	------	------	------	------	------	1
Stablemen	3	------	------	------	1	------	2	------	------	------	------	1	------	1	1	------
Stenographers	9	------	6	------	3	------	------	------	------	1	1	1	5	------	1	------
Stenographers (F.)	23	1	22	------	------	------	------	------	------	------	1	5	11	4	2	------
Teamsters	53	------	3	9	23	14	4	------	------	------	2	26	16	8	1	------
Totals	533	3	169	70	251	17	23	------	------	11	15	105	152	103	31	116
Drugs and Chemicals.	5	est	ablis	hmen	ts.											
Bookkeepers	6	------	6	------	------	------	------	------	------	------	------	1	------	3	1	1
Bookkeepers (F.)	5	------	5	------	------	------	------	------	------	1	------	------	4	------	------	------
Cashiers	2	------	1	1	------	------	------	------	------	------	------	------	------	------	1	1
Collectors	1	------	------	1	------	------	------	------	------	------	------	------	------	------	------	1
Errand boys	22	------	22	------	------	------	------	------	2	12	------	8	------	------	------	------
Laboratory help	5	------	------	5	------	------	------	------	------	2	------	------	------	------	------	3
Laboratory help (F.)	2	------	2	------	------	------	------	------	------	2	------	------	------	------	------	------
Managers and foremen	20	------	15	5	------	------	------	------	------	------	------	------	------	------	3	17
Office clerks	99	------	------	99	------	------	------	------	2	17	13	16	19	10	9	13
Office clerks (F.)	31	------	31	------	------	------	------	------	------	17	8	6	------	------	------	------
Porters and packers	29	------	10	17	------	------	2	------	------	2	7	11	7	2	------	------
Salesmen	31	------	14	17	------	------	------	------	------	------	------	------	3	2	1	25
Shipping clerks	15	------	11	4	------	------	------	------	------	1	5	2	4	1	1	1
Stenographers	1	------	------	1	------	------	------	------	------	------	------	------	1	------	------	------
Stenographers (F.)	17	------	17	------	------	------	------	------	------	------	1	8	5	2	1	------
Stock clerks	59	------	59	------	------	------	------	------	------	14	16	19	7	2	1	------
Teamsters	1	------	1	------	------	------	------	------	------	------	------	------	------	------	------	1
Telephone girls	2	------	2	------	------	------	------	------	------	------	2	------	------	------	------	------
Totals	348	------	196	150	------	------	2	------	4	68	52	71	50	22	18	63

TABLE No. 8. CITY OF LOS ANGELES.

Wholesale Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Dry Goods.	1	establishment.														
Managers and foremen	4			4												4
Porters and packers	15			15						1			10	2	2	
Office clerks	7			7									2	2	1	2
Salesmen	31			31							2	1	4	4	4	16
Shipping clerks	8			8						6		1		1		
Stenographers (F.)	4		4							2		2				
Teamsters	2			2									2			
Totals	71		4	67						9	2	4	18	9	7	22
Furniture.	4	establishments.														
Bookkeepers	1			1								1				
Bookkeepers (F.)	6		6									2		3		1
Cabinet makers	2		1	1										1	1	
Cashiers	1			1												1
Chair makers	10		4		6					1	1	2	5	1		
Furniture handlers	9		1	1	7						3	2	1	3		
Machinists	3			3								2		1		
Managers and foremen	8		3	3	2										1	7
Office clerks (F.)	4		4									1	3			
Salesmen	29			21	8							1	1	1	3	23
Sanders (F.)	3		3							1	2					
Shipping clerks	4		2	1	1								1	2	1	
Stenographers (F.)	3		3									1	2			
Stock clerks	2			1	1							1		1		
Teamsters	2			2								1	1			
Upholsterers	3		3							1		1		1		
Varnishers and finishers	25		2		23					1	10	6	3	4		1
Warehousemen	13				13						1	6	4	2		
General help	23		23							23						
Totals	151		55	35	61					27	17	27	21	20	6	33

Gas and Electric Goods.	8	est	ablis	hmen	ts.											
Bookkeepers	4		3	1											1	3
Cashiers	2		2												1	1
Collectors	1		1													1
Errand boys	2		2							2						
Managers and foremen	20		18	2												20
Meter experts	1		1										1			
Office clerks	73		71	2					1	6	9	12	11	10	10	14
Office clerks (F.)	17		17								1	2	7	5	2	
Porters and packers	27		27									5	22			
Salesmen	86		75	11							2	4	2	7	18	53
Shipping clerks	6		4	2								2	1	2	1	
Stenographers (F.)	42	1	41							1	3	6	15	13	4	
Stock clerks	7		1	6							1	3	1	1	1	
Teamsters	1			1								1				
Telephone girls	2		2								1	1				
Warehousemen	7		7								1	3	1		1	1
Totals	298	1	272	25					1	9	18	39	61	38	39	93
Glass.	3	est	ablis	hmen	ts.											
Bevelers	6			6							1		3	2		
Bookkeepers	2		2													2
Collectors	1		1													1
Grinders and setters	5		5										5			
Glaziers	7			7										7		
Managers and foremen	3		3												1	2
Office clerks	4		2				2									4
Office clerks (F.)	1		1										1			
Porters and packers	7			7								4	3			
Salesmen	7		7													7
Shipping clerks	3		1	2										1	2	
Stenographers (F.)	4		4								1		2		1	
Stock clerks	2		2										2			
Teamsters	5		1	4									4			1
Totals	57		29	26			2				2	4	20	10	4	17
Groceries.	16	est	ablis	hmen	ts.											
Bookkeepers	21		8	13								1	3	4	1	12
Bookkeepers (F.)	11		11									1	3	5	1	1
Buyers	2			2											1	1
Cashiers	4			4												4
Chemists	1			1											1	
Coffee roasters	6			6									3	1	1	1

TABLE No. 8. CITY OF LOS ANGELES.

Wholesale Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Groceries—Continued.																
Demonstrators (F.)	1	------	1	------	------	------	------	------	------	------	------	------	1	------	------	------
Errand boys	4	------	1	3	------	------	------	------	------	4	------	------	------	------	------	------
Managers and foremen	20	------	3	17	------	------	------	------	------	------	------	------	------	1	------	19
Office clerks	77	------	1	76	------	------	------	------	------	3	11	11	30	8	3	11
Office clerks (F.)	24	------	24	------	------	------	------	------	------	4	7	7	4	1	1	------
Packers (F.)	40	------	40	------	------	------	------	------	3	23	13	------	------	1	------	------
Porters and packers	123	------	------	123	------	------	------	------	------	1	8	74	30	10	------	------
Salesmen	170	------	30	140	------	------	------	------	------	------	------	3	22	8	6	131
Shipping clerks	24	------	1	23	------	------	------	------	------	------	1	3	7	7	2	4
Spice grinders	1	------	------	1	------	------	------	------	------	------	------	------	1	------	------	------
Stenographers	1	------	1	------	------	------	------	------	------	------	------	------	------	1	------	------
Stenographers (F.)	18	------	18	------	------	------	------	------	------	1	3	3	7	2	2	------
Stock clerks	2	------	------	2	------	------	------	------	------	------	------	------	------	2	------	------
Teamsters	16	------	------	16	------	------	------	------	------	------	1	4	6	4	1	------
Telephone girls	4	------	4	------	------	------	------	------	------	1	3	------	------	------	------	------
Totals	570	------	143	427	------	------	------	------	3	37	47	107	117	55	20	181
Hardware.	13	establishments.														
Bookkeepers	22	------	3	19	------	------	------	------	------	2	1	------	------	13	3	3
Bookkeepers (F.)	2	------	2	------	------	------	------	------	------	------	------	------	1	1	------	------
Cashiers	5	------	------	5	------	------	------	------	------	------	------	------	------	------	1	4
Cashiers (F.)	1	------	1	------	------	------	------	------	------	------	------	------	------	------	1	------
Collectors	2	------	------	2	------	------	------	------	------	------	------	------	1	1	------	------
Errand boys	4	------	------	4	------	------	------	------	------	3	1	------	------	------	------	------
Machinists	10	------	------	10	------	------	------	------	------	------	------	5	------	3	1	1
Managers and foremen	40	------	1	39	------	------	------	------	------	------	------	------	------	1	1	38
Mechanics	2	------	1	1	------	------	------	------	------	------	------	------	------	2	------	------
Porters and packers	74	------	------	72	1	1	------	------	------	2	2	33	32	5	------	------
Office clerks	346	------	27	319	------	------	------	------	5	53	41	81	94	34	14	24
Office clerks (F.)	30	------	30	------	------	------	------	------	------	------	11	10	5	2	1	1
Salesmen	142	------	14	128	------	------	------	------	------	------	------	1	15	8	10	108
Shipping clerks	14	------	1	13	------	------	------	------	------	------	------	2	7	1	3	1
Stenographers (F.)	50	------	50	------	------	------	------	------	------	2	12	20	14	1	1	------

Stock clerks	14			14						3	3	2	5	1		
Teamsters	42		1	41							7	15	15	5		
Telephone girls	2		2								1		1			
Totals	802		133	667	1	1			5	65	79	169	190	78	36	180
Importers.	1	establishment.														
Bookkeepers	1		1												1	
Errand boys	1		1							1						
Managers and foremen	1		1													1
Office clerks (F.)	1		1							1						
Porters and packers	2		2								2					
Salesmen	4		4													4
Saleswomen	7		7							3	2	1		1		
Stenographers (F.)	1		1									1				
Totals	18		18							5	4	2		1	1	5
Jewelry.	6	establishments.														
Bookkeepers	4		2	2									1			3
Bookkeepers (F.)	9		9								1	6	1	1		
Cashiers (F.)	1		1								1					
Errand boys	15		6	9						14	1					
Jewelers, manufacturing	1		1													1
Jewelers, helpers	3		3							1		2				
Managers and foremen	10		1	9												10
Office clerks	1			1					1							
Office clerks (F.)	2		2								1	1				
Opticians, manufacturing	14		5	9										9	1	4
Opticians, manufacturing, apprentices	2			2						2						
Porters and packers	1			1											1	
Salesmen	38		13	25						2	1		5	8		22
Saleswomen	1		1									1				
Shipping clerks	3		1	2							1	1	1			
Stenographers (F.)	7		7								5	2				
Stock clerks	7		7							1	2	4				
Stock clerks (F.)	4		4							2		2				
Telephone girls	1		1							1						
Totals	124		64	60					1	23	13	19	8	18	2	40
Leather Goods.	2	establishments.														
Bookkeepers	1		1													1
Bookkeepers (F.)	2		2								1		1			
Errand boys	1			1						1						

TABLE No. 8. CITY OF LOS ANGELES.

Wholesale Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Leather Goods—Continued.																
Managers and foremen	2			2												2
Office clerks	2			2						1						1
Salesmen	4		3	1												4
Stenographers (F.)	1		1										1			
Teamsters	1			1									1			
General help	8			8									5	3		
Totals	22		7	15						2	1		8	3		8
Machinery, Implements, Engines, etc.	21	establishments.														
Bookkeepers	17		14	3							1	2	1	5	3	5
Bookkeepers (F.)	6		6							1			3		1	1
Cashiers	5		5													5
Collectors	1		1											1		
Erectors	20		10	10								3	2	3	6	6
Errand boys	4		4						1	3						
Machinists	36		35	1							2	3	2	18	10	1
Managers and foremen	30		21	9											1	29
Mechanics	8			8									1	2	5	
Office clerks	132		97	35					3	5	7	11	23	23	18	42
Office clerks (F.)	7		7							1	2		1	2	1	
Porters and packers	35		30	5							3	6	21	4	1	
Salesmen	125		86	39								1	9	5	17	93
Shipping clerks	18		9	9						1			4	5	4	4
Stenographers	15		14	1									3	9	3	
Stenographers (F.)	43		43							3	8	9	15	6	2	
Stock clerks	8		7	1						2	2		1	2	1	
Teamsters	7			7									2	3	2	
Telephone girls	4		4							2		1	1			
Warehousemen	23			23								6	7	2	5	3
General help	17		6	11							4	2	7	4		
Totals	561		399	162					4	18	29	44	103	94	80	189

Manufacturers' Agencies.	12	est	ablis	hmen	ts.											
Bookkeepers	3			3									1	1		1
Bookkeepers (F.)	5		5										4	1		
Cashiers (F.)	4		4							2	1		1			
Collectors	15			15									10		5	
Errand boys	3			3						2		1				
Managers and foremen	8		2	6												8
Mechanics	9		1	8								3	1	1	3	1
Office clerks	3		3							2		1				
Porters and packers	1		1						1							
Salesmen	70		41	29								5	1	35	5	24
Saleswomen	12		12									2	8	2		
Shipping clerks	1			1									1			
Stenographers (F.)	13		13							1	2	3	5	2		
Teamsters	1			1							1					
Totals	148		82	66					1	7	4	15	32	42	13	34
Meats.	2	est	ablis	hmen	ts.											
Bookkeepers	11		5	6									2	4	1	4
Bookkeepers (F.)	1		1												1	
Cashiers	1		1											1		
Engineers	2						2							1	1	
Errand boys	1		1								1					
Managers and foremen	9		6	2	1									2	2	5
Office clerks	6		5	1								1	2	2	1	
Office clerks (F.)	2		2								1		1			
Porters and packers	71		49		22							52	15	4		
Salesmen	33		33											6	7	20
Shipping clerks	6		3		3								2	3		1
Stenographers (F.)	3		3											3		
Teamsters	9				9							2	6	1		
Totals	155		109	9	35		2				2	55	28	27	13	30
Millinery.	6	est	ablis	hmen	ts.											
Bookkeepers (F.)	4		4								1			2		1
Cashiers (F.)	1		1									1				
Decorators	1			1												1
Errand boys	2			2						2						
Hat makers (F.)	21		21							3	12	3	3			
Hat makers, apprentices (F.)	8		8						7	1						
Managers and foremen	7		5	2												7
Milliners (F.)	24		24						6	11	1	2	2	2		
Office clerks	3		2	1						2			1			

TABLE No. 8. CITY OF LOS ANGELES.

Wholesale Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Millinery—Continued.																
Office clerks (F.)	3		3								2			1		
Porters and packers	1			1								1				
Salesmen	15		6	9										6		9
Saleswomen	20		20						2	3		5	5	4		1
Shipping clerks	3		1	2						1				2		
Shipping clerks (F.)	1		1							1						
Stenographers (F.)	1		1							1						
Stock clerks	5		4	1								2	2	1		
Stock clerks (F.)	1		1							1						
Trimmers (F.)	10		10								1		2	4		3
General help	12		7	5								9	2		1	
Totals	143		119	24					15	26	17	23	17	22	1	22
Notions, Toys, etc.	4	establishments.														
Bookkeepers	3		3										1	1		1
Bookkeepers (F.)	7		7						1		2	1	2	1		
Managers and foremen	14		12	2												14
Office clerks	3			3						1	1		1			
Office clerks (F.)	1		1										1			
Porters and packers	4			4								2	2			
Salesmen	32			32							2	3	4	15		8
Saleswomen	20		20							5	15					
Shipping clerks	2			2								1	1			
Stenographers (F.)	4		4								2	1		1		
Stock clerks	17			17					1	5	1	8		1		1
Tailors	6			6									6			
Teamsters	1			1										1		
Totals	114		47	67					2	11	23	16	18	20		24
Paints, Oils, Wall Paper, etc.	9	establishments.														
Bookkeepers	7		2	5								3	1	1	2	
Bookkeepers (F.)	1		1										1			

Cashiers	2			1	1											2
Cashiers (F.)	1		1									1				
Glaziers	19				19							2	6	8	3	
Managers and foremen	9		2	7											1	8
Office clerks	26		2	15	9					3	3	5	2	4	2	7
Porters and packers	9			1	8						1	3	4		1	
Salesmen	48			48									3	16	6	23
Shipping clerks	2			1	1							1			1	
Stenographers	6		2		4							4	2			
Stenographers (F.)	8	1	7						1		2	3	1	1		
Stock clerks	10			10						1	2	1	5	1		
Teamsters	9			9							2	5	1		1	
Telephone girls	1		1									1				
General help	12			12							1	2	3	4	1	1
Totals	170	1	18	109	42				1	4	11	31	29	35	18	41
Paper.	3	establishments.														
Bookkeepers	10		3	2	5						1	3		4	2	
Bookkeepers (F.)	2		2											2		
Collectors	5		1	4							1		1	1	1	1
Errand boys	9		9									3	6			
Managers and foremen	14		6	8												14
Office clerks	29		2	12	15							14	2	5	3	5
Office clerks (F.)	8		8							2	4	1	1			
Porters and packers	11		4	7						1	1	5		4		
Salesmen	59		15	26	18						1	2	2	7	8	39
Shipping clerks	13			13							3	7	2	1		
Stenographers (F.)	12		12								2	3	4	1	2	
Stock clerks	38			25	13					1	3	17	10	7		
Teamsters	21		6	15							2	3	15	1		
Telephone girls	2		2								1	1				
General help	111		109	2									101	1	9	
Totals	344		179	114	51					4	19	59	144	34	25	59
Plumbing Supplies.	5	establishments.														
Bookkeepers	3			3									2	1		
Bookkeepers (F.)	1		1											1		
Cashiers	1			1												1
Collectors	1			1												1
Managers and foremen	13			13								1	2			10
Office clerks	23			23						1	2	10	4	1	3	2
Office clerks (F.)	6		6									4	1			1
Porters and packers	39			6	32		1				1	33	3	1	1	

TABLE No. 8. CITY OF LOS ANGELES.

Wholesale Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Plumbing Supplies—Continued.																
Salesmen	22			22								2		5	3	12
Shipping clerks	4			4								1	2	1		
Stenographers (F.)	11		11									9	1		1	
Stock clerks	3			3								1	2			
Stove repairmen	3			3									2		1	
Teamsters	2			2								2				
General help	11			11							1	8	2			
Totals	143		18	92	32		1			1	4	71	21	10	9	27
Rubber Goods.	3	establishments.														
Bookkeepers	1		1							1						
Managers and foremen	2			2												2
Office clerks	7			7							2	1		3		1
Salesmen	3			3									1			2
Stenographers (F.)	2		2								1	1				
Totals	15		3	12						1	3	2	1	3		5
Seeds.	2	establishments.														
Bookkeepers	2			1	1									1		1
Cashiers (F.)	1		1								1					
Errand boys	3				3			1	2							
Managers and foremen	4			4												4
Nursery girls	1		1									1				
Office clerks	7			3	4									6		1
Office clerks (F.)	11		11							4	2	2	2			1
Packers (F.)	1		1							1						
Porters and packers	1				1						1					
Salesmen	24			22	2					1	1	2	8	4	2	6
Shipping clerks	6				6								5	1		
Stenographers (F.)	9		9							1		6	2			
Teamsters	6			3	3					1		2	2	1		

Telephone girls	1		1								1					
General help	9				9							9				
Totals	86		24	33	29			1	2	8	6	22	19	13	2	13
Stationery.	4	establishments.														
Bookkeepers	3			3								1	2			
Bookkeepers (F.)	5		5								3				1	1
Cashiers	1			1												1
Cashiers (F.)	1		1								1					
Collectors	1			1								1				
Errand boys	1			1					1							
Managers	7			7							1		1	2		3
Office clerks	3			3								3				
Porters and packers	10			10							1	6	3			
Salesmen	16			16							2	2	1			11
Saleswomen	8		8							4	1	1	1	1		
Shipping clerks	6			6							2	3	1			
Stenographers (F.)	4		4								1	3				
Stock clerks	5			5						1	1	2	1			
Teamsters	2			2							1		1			
Totals	73		18	55					1	5	14	22	11	3	1	16
Miscellaneous.	14	establishments.														
Blacksmiths	3			3							1				2	
Bookkeepers	6		1	4	1								1	1		4
Bookkeepers (F.)	2		2								1				1	
Buyers	1			1												1
Cashiers	1		1													1
Cashiers (F.)	1		1									1				
Collectors	1			1										1		
Errand boys	5		1	4						5						
Inspectors	2			2												2
Managers and foremen	15		4	11							1					14
Mechanics	13		1	12						2	3	1	2			5
Office clerks	10			9	1							1	7			2
Office clerks (F.)	5		5										3	2		
Operators	3			3										1		2
Operators (F.)	3		3								2			1		
Packers (F.)	2		2							2						
Porters and packers	2		1	1								2				
Salesmen	39		15	24									2	13	2	22
Stenographers	4	1	1	2							1	2	1			

TABLE No. 8. CITY OF LOS ANGELES.

Wholesale Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Miscellaneous—Continued.																
Stenographers (F.)	9		9							1		1	4			3
Shipping clerks	3			2	1								2		1	
Stock clerks	8		2		6						1	4	3			
Teamsters	21			5	16								19	1		1
Telephone girls	1		1							1						
General help	19			19								16	3			
Totals	179	1	50	103	25					11	10	28	47	20	6	57

TABLE No. 9. CITY OF LOS ANGELES.

Retail Establishments. Hours of Labor and Wages. (Tabulated by iudustry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Automobiles and Accessories.	9	establishments.														
Bookkeepers	3			3									1	1		1
Bookkeepers (F.)	4		4										2	2		
Credit men	1			1												1
Errand boys	3			3						2	1					
Managers and foremen	12			12											1	11
Mechanics	40			40						1	1	6	2	17	12	1
Office clerks	4			4							1	1				2
Porters and packers	7			7							1	4	1			1
Salesmen	42			42							3	3	6	7	4	19

Shipping clerks	3			3							1		2			
Stenographers (F.)	13	1	12							1		7	4	1		
Stock clerks	4			4								1	1	2		
Totals	136	1	16	119						4	8	22	19	30	17	36
Bicycles, Motorcycles, etc.	5	est	ablis	hmen	ts.											
Bookkeepers	4		3	1								1	2		1	
Bookkeepers (F.)	4		4								1		2			1
Errand boys	2			2						2						
Machinists	6			6											6	
Managers and foremen	6			4	2										1	5
Mechanics	18			15	3						1	1	9	5	2	
Office clerks (F.)	1		1									1				
Salesmen	22			22							1	2	4	5	4	6
Shipping clerks	2			2							1		1			
Stenographers (F.)	4		4									2	2			
Stock clerks	1			1									1			
Totals	70		12	53	5					2	4	7	21	10	14	12
Boots and Shoes.	17	est	ablis	hmen	ts.											
Bookkeepers	2		1	1							1		1			
Bookkeepers (F.)	9		9								2		4	2		1
Cashiers	2			2							1	1				
Cashiers (F.)	16		16							5	5	2	4			
Errand boys	23			22	1					20	3					
Managers and foremen	16			14	2											16
Office clerks (F.)	9		9							2	1	2	2	2		
Porters and packers	23			23						2	6	11	4			
Salesmen	169			156	13						1	11	32	75	28	22
Saleswomen	13		13							2	4	5	1	1		
Shipping clerks	2			2							1				1	
Shoemakers	17			8	9							1	6	3	3	4
Stenographers (F.)	2		2								1	1				
Teamsters	1			1										1		
Telephone girls	1		1								1					
General help (F.)	2		2								1	1				
Totals	307		53	229	25					31	28	35	54	84	32	43
Butcher Shops.	12	est	ablis	hmen	ts.											
Bookkeepers	5			1	2		2								1	4
Bookkeepers (F.)	8		8								1	2	4	1		
Cashiers	2				1	1							1	1		

TABLE No. 9. CITY OF LOS ANGELES.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Butcher Shops—Continued.																
Cashiers (F.)	3	1	2									1	2			
Drivers	29		8	1	19	1				1		24	4			
Managers and foremen	9			2	6	1										9
Meat cutters	78				44	27	7					5	6	39	23	5
Salesmen	22			2	10	10					4	1	6	9	1	1
Sausage makers	9				8	1							3	4	2	
Stenographers (F.)	1		1										1			
Telephone girls	2		2									2				
Wrappers	7				6	1					4	1	2			
Totals	175	1	21	6	96	42	9			1	9	36	29	54	27	19
Clothing and Furnishings.	35	establishments.														
Alteration hands (F.)	264		264						1	12	131	83	13	22		2
Bookkeepers	8		4	4								1	1	1		5
Bookkeepers (F.)	27		27								2	5	13	4		3
Buyers	1				1											1
Cashiers	4			2	2						1		1	1		1
Cashiers (F.)	31		31						5	4	5	9	7			1
Collectors	5			4	1							1	3	1		
Errand boys	23	1	4	17	1				4	14	3	1	1			
Managers and foremen	50		24	18	8									2	2	46
Managers and forewomen (F.)	5		5											2		3
Millinery makers (F.)	30		30					1	3	12	7		3	1	1	2
Millinery trimmers (F.)	2		2								1	1				
Office clerks	2			2							2					
Office clerks (F.)	21	3	18						3	4	4	2	4	4		
Porters and packers	44		11	27	4		2				7	24	9	2		2
Pressers	7		2	3	2							1		5	1	
Salesmen	268			233	35				1	5	9	10	26	66	44	107
Saleswomen	313		313						10	58	42	44	68	60	11	20
Shipping clerks	7		3	4						1	1	2	1	1		1
Shipping clerks (F.)	1		1									1				
Stenographers (F.)	13		13								4	3	5	1		

Stock clerks	9		4	5						2		1	3	2		1
Stock clerks (F.)	2		2							2						
Tailors	42		5	30	7							1	5	22	8	6
Tailoresses	19		19								2	11	4	2		
Teamsters	3			3							1	1		1		
Telephone girls	2		2								1	1				
Window trimmers	3		1	2											1	2
Wrappers	10		1	9						1	3	3	2	1		
Wrappers (F.)	5		5							5						
Totals	1,221	4	791	363	61		2	1	27	120	226	206	169	201	68	203
Confectionery.	13	establishments.														
Bookkeepers	1			1											1	
Bookkeepers (F.)	2	1	1									1	1			
Candy makers	15			11	4					3	4	1	3	1	1	2
Cashiers (F.)	5		5							2	3					
Chocolate dippers (F.)	10		10								4	6				
Cooks	4			4										2		2
Cooks (F.)	5		5								2	2	1			
Ice cream makers	1			1									1			
Kitchen help	4			3	1					1	3					
Managers and foremen	4			2	2										1	3
Office clerks	2	1		1						1		1				
Porters and packers	1			1							1					
Salesmen	11	3		2	6				1	1	5	3		1		
Saleswomen	37	5	32							10	23	3	1			
Soda dispensers	12	3	2	3	4					1	1	2	3	2	1	2
Waiters	2			2										1		1
Waitresses	35		35							30	4		1			
Totals	151	13	90	31	17				1	49	50	19	11	7	4	10
Department Stores.	5	establishments.														
Alteration hands	20			20							2	1	3	9	4	1
Alteration hands (F.)	136		136						10	23	55	31	8	5	2	2
Bookkeepers	5		3	2								2	1		1	1
Bookkeepers (F.)	11		11							1	4	2	2	1	1	
Cashiers	8		5	3							4	1	1	1	1	
Cashiers (F.)	172		172						9	148	12	1	2			
Collectors	1		1										1			
Errand boys	40		40						26	8	6					
Errand girls	69		69						68	1						
Managers and foremen	116		8	108							1	1	8	16	11	79
Managers and forewomen (F.)	37		37							1	2		2	2	2	28

TABLE No. 9. CITY OF LOS ANGELES.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Department Stores—Continued.																
Mechanics	34		16	18							3	15	2	3	9	2
Office clerks	42		3	39					6	4	5	6	7	6	5	3
Office clerks (F.)	120		120						8	56	31	15	4	4		2
Packers (F.)	10		10						1	8				1		
Porters and packers	139		10	129					3	5	56	34	26	11	3	1
Salesmen	263			263					10	26	47	61	73	38	6	2
Saleswomen	732		732						102	311	202	67	33	17		
Shipping clerks	7		6	1							4	1	1		1	
Stenographers (F.)	18		18						1	1	4	6	5			1
Stock clerks	81		5	76					1	14	24	21	14	5		2
Stock clerks (F.)	29		29						8	20			1			
Teamsters	71		8	63						6	16	43	2	3	1	
Telephone girls	2		2								2					
Window trimmers	16			16						5	1	2	1	3		4
Window trimmers (F.)	1		1											1		
Wrappers	22		9	13					6	4	9	2		1		
Wrappers (F.)	25		25						16	9						
Restaurant department:																
Bakers	3			3								1		1	1	
Bakers, helpers	2			2							1	1				
Cooks	2		1	1										1	1	
Cooks, helpers	2			2							1		1			
Kitchen help	12			12					2	9	1					
Kitchen help (F.)	1		1								1					
Waitresses	37	34	3						29	6	2					
Totals	2,286	34	1481	771					306	666	496	314	198	129	49	128
Dry Goods.	12	establishments.														
Alteration hands	8		8										1	4	1	2
Alteration hands (F.)	293		293					2	19	27	103	87	33	17		5
Bookkeepers	16		12	4								3	4	3	2	4
Bookkeepers (F.)	32		32						1	8	10	3	7	2	1	

Cashiers	7		7											2	1	4
Cashiers (F.)	92		92						4	62	17	6	3			
Collectors	3		2	1									1	2		
Errand boys	84		82	2					58	11	15					
Errand girls	106		106						106							
Inspectors	5		5						1	2	1		1			
Inspectors (F.)	41		41						25	12	3	1				
Managers and foremen	132		57	75									9	10	14	99
Managers and forewomen	5		5													5
Mechanics	5		3	2										4	1	
Millinery makers (F.)	32		32					2	7	5	7	5	3	1	1	1
Office clerks	32		21	11					2	7	4	6	3	3	2	5
Office clerks (F.)	92		92						4	40	26	15	6	1		
Porters and packers	93		56	36	1				2	3	17	36	26	7		2
Salesmen	317		148	169					2	13	18	38	117	58	37	34
Saleswomen	1193		1193						51	332	365	221	152	50	7	15
Shipping clerks	34		8	26					2	4	3	8	8	5	1	3
Stenographers (F.)	13		13								1	7	5			
Stock clerks	34		18	16					3	9	7	9	1	4	1	
Stock clerks (F.)	63		63						22	23	11	2	3	1	1	
Teamsters	37		9	28						6	1	26	2	1	1	
Telephone girls	1		1									1				
Window trimmers	20		15	5						3	5	1	2	3	1	5
Wrappers	20		20						1	9	3	4	3			
Wrappers (F.)	67		67						45	21	1					
General help	14		8	6					3	1	1	2	2	3	2	
General help (F.)	8		8						1	1	3	3				
Restaurant department:																
Bakers	1		1										1			
Busboys	2		2						1	1						
Cooks	1		1												1	
Cooks, helpers	2		2							1			1			
Kitchen help	5		5							4		1				
Kitchen help (F.)	1		1						1							
Waitresses	22		22						20		1	1				
General help	11		11							5	1	2	1	2		
General help (F.)	29		29						23	5	1					
Totals	2973		2591	381	1			4	404	615	625	488	395	183	75	184
Drug Stores.	23	establishments.														
Bookkeepers	1			1												1
Bookkeepers (F.)	3		3								1	1	1			
Cashiers	2	2									2					

TABLE No. 9. CITY OF LOS ANGELES.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Drug Stores—Continued.																
Cashiers (F.)	17		17							13	4					
Collectors	1		1											1		
Drug clerks	109		7	2	100					1	2	4	24	17	36	25
Drug clerks, apprentices	1			1							1					
Errand boys	15			13	2					12	1	1	1			
Laboratory help	2			2								1		1		
Laboratory help (F.)	1		1						1							
Managers and foremen	16			4	12										2	14
Office clerks	1			1								1				
Office clerks (F.)	10		10								5	4	1			
Porters and packers	13				13						1	11	1			
Saleswomen	16		16							2	6	7	1			
Shipping clerks	2			1	1						1		1			
Stenographers (F.)	2		2								1	1				
Stock clerks	10			5	5						2	5	1	1		1
Soda dispensers	14	1		5	8					1	1	1	7	1		3
Totals	236	3	57	35	141				1	29	28	37	38	21	38	41
Florists and Nurseries.	4	establishments.														
Bookkeepers (F.)	3		3							1		1	1			
Errand boys	9		5	1	3					9						
Managers and foremen	4			1	3											4
Salesmen	17		6	2	6	3						1	2	10	3	1
Teamsters	1				1									1		
General help	8			8							1	5		1		1
General help (F.)	1		1								1					
Totals	43		15	12	13	3				10	2	7	3	12	3	6
Furniture.	21	establishments.														
Advertising men	2		1	1							1			1		
Bookkeepers	20			20							1	1	2	3	4	9
Bookkeepers (F.)	8		8									2	3	1	2	

Buyers	1			1													1
Cabinet makers	57			33	24								9	22	14	12	
Carpenters	4		4											3	1		
Carpet layers	39		2	31	6									4	14	20	1
Cashiers (F.)	5		5						1		1			2		1	
Collectors	15		1	12	2								3	3	5	3	1
Credit men	3		1	2											1		2
Designers and decorators	8		8													7	1
Drapers	15		4	11										7	3	5	
Engineers	2			2											1	1	
Errand boys	9			9					1	5	3						
Furniture handlers	5				5								5				
Managers and foremen	58		11	41	6									1	3	5	49
Mattress makers	5		4		1									1	4		
Mattress makers, apprentices	4		4								4						
Office clerks	35		1	21	13						2		12	11	5	4	1
Office clerks (F.)	26		26							8	3		12	3			
Painters	10		10												10		
Paperhangers	3		3												1	2	
Plumbers	1			1										1			
Polishers	20			1	19								16	4			
Porters and packers	87			41	43		3	1		1	6		56	18	4	1	
Salesmen	137	10	17	82	28								10	15	37	14	61
Saleswomen	9		9							1	3			1	1	3	
Seamstresses	68		68							2	56		6	4			
Shade makers and hangers	8			8										8			
Shipping clerks	34			7	27						1		10	13	6	2	2
Solicitors	8			8												2	6
Stenographers (F.)	18		18							2	5		10	1			
Stock clerks	24		5	19							1		4	17	1	1	
Stock clerks (F.)	2		2								1		1				
Stove repair men	5				5								2	1	2		
Teamsters	87			38	49						3		29	41	11	3	
Telephone girls	2		2							2							
Upholsterers	23		20	3									1	12	1	9	
General help	50			28	22					1	21		28				
Totals	917	10	234	420	250		3	1	2	22	112		217	198	130	101	134
Fixtures, Gas and Electric.	7	est	ablis	hmen	ts.												
Bookkeepers	3		1	2											1		2
Bookkeepers (F.)	6		6								1		1	1	3		
Designers	1		1										1				
Electricians	1		1												1		
Errand boys	2			2						2							

TABLE No. 9. CITY OF LOS ANGELES.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Fixtures, Gas and Electric—Continued.																
Fixture hangers	4		4												4	
Fixture makers	1		1												1	
Managers and foremen	4		1	3												4
Mechanics	2		2									1		1		
Metal workers	1		1											1		
Office clerks	4		2	2							2	1	1			
Office clerks (F.)	2		2									2				
Pipe fitters	4			4									3	1		
Pipe fitters, helpers	4			4							4					
Platers	2		2										1	1		
Polishers	1		1											1		
Porters and packers	6			5	1							4	1	1		
Salesmen	22		3	19									1	5	4	12
Shipping clerks	1		1									1				
Stenographers (F.)	4		4									2		1	1	
Stock clerks	1		1											1		
Teamsters	2		1	1							1		1			
Trimmers	17			17							17					
Totals	95		35	59	1					2	25	13	9	18	10	18
Groceries.	17	establishments.														
Bakers	38			6	32					1	5	16	11	4	1	
Bakers (F.)	3		3							1	2					
Bookkeepers	19	1	2	14	2					2		1	6	6	1	3
Bookkeepers (F.)	8		8								1	5	2			
Candy makers	2				2							1	1			
Candy makers (F.)	15		15						1	7	7					
Cashiers (F.)	24	1	23							4	14	4	2			
Collectors	2			2										1	1	
Cooks	13			2	11					8		1	2	1		1
Cooks (F.)	2		2								1		1			
Errand boys	24	17		7				1	6	16	1					
Kitchen help	4			1	3					3	1					

Managers and foremen	38		1	6	28	2	1							1	4	33
Managers and forewomen (F.)	1		1													1
Mechanics	2				2									2		
Meat cutters	21			1	12	5	3					1	3	15	1	1
Office clerks	31			20	11					3	3	8	9	6	1	1
Office clerks (F.)	22		22							4	8	9	1			
Order clerks	40				40					1	9	23	6	1		
Order clerks (F.)	25		25							1	9	8	6	1		
Porters and packers	15			2	12		1				7	4	3	1		
Salesmen	273		12	12	185	54	10			7	10	81	117	37	7	14
Saleswomen	81	1	80						1	38	31	8	2	1		
Shipping clerks	28		1		24	3				1	3	8	11	4	1	
Soda dispensers	2				2									2		
Stablemen	11				8	3						8	1	1	1	
Stenographers	1				1								1			
Stenographers (F.)	7		7								3	2	2			
Stock clerks	49		1		48						3	15	27	2	1	1
Teamsters	90				40	50				1	13	37	37	2		
Telephone girls	6		6							1	4	1				
Waitresses	30	22	8						22	6	1		1			
General help	1				1						1					
Totals	928	42	217	73	464	117	15	1	30	105	137	241	252	88	19	55
Hardware.	16	establishments.														
Bookkeepers	11		2	5	4							1	2	2	2	4
Bookkeepers (F.)	7		7							1	1	3	1	1		
Cashiers	3		1	1	1									1	2	
Cashiers (F.)	1		1								1					
Collectors	3			2	1								1	2		
Collectors (F.)	1		1								1					
Electricians	6		6									1	1	1	2	1
Errand boys	6		1	5						5	1					
Managers and foremen	14		5	7	2									1	3	10
Mechanics	4			1	3								1	2		1
Office clerks	15		2	1	12				1		3	1	2	3	3	2
Office clerks (F.)	1		1													1
Plumbers	16		16											1	1	14
Porters and packers	19		5	1	13					8	2	3	1	5		
Printers (F.)	1		1							1						
Salesmen	128		4	68	56					1	4	15	36	23	13	36
Shipping clerks	13		1	5	7					1		3	4	3	2	
Stablemen	1			1								1				
Stenographers (F.)	16		16							1	6	4	1		4	
Stock clerks	14			14							3	8	2	1		

TABLE No. 9. CITY OF LOS ANGELES.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Hardware—Continued.																
Teamsters	27		1	8	18						2	19	6			
Telephone girls	1		1								1					
Tinners	28		27	1					1	3	2	1	5	6	10	
General help	19		2		17					2	2	8	5	1	1	
Totals	355		101	120	134				2	23	29	68	68	53	43	69
Household Goods.	2	establishments.														
Bookkeepers (F.)	13		13								5	5	1			2
Carpenters	2			2								1		1		
Cashiers (F.)	5		5								5					
Engineers	2			2								1			1	
Errand boys	13			13					2	11						
Managers and foremen	19			19									11	2		6
Office clerks	11			11						4	6	1				
Office clerks (F.)	9		9							3	5	1				
Pipe fitters	1			1										1		
Porters and packers	14			14						1		6	7			
Salesmen	31			31							1	2	18	6		4
Saleswomen	22		22							1	20		1			
Shipping clerks	2			2									2			
Stenographers (F.)	6		6							1	3	1	1			
Stock clerks	39			39						16	8	13		2		
Teamsters	8			8							1	6	1			
Window trimmers	2			2							1		1			
Totals	199		55	144					2	37	55	37	43	12	1	12
Jewelry.	16	establishments.														
Bookkeepers	5	1		4							1				1	3
Bookkeepers (F.)	5		5								1	1	1	1		1
Cashiers (F.)	5	1	4									2	2			1
Designers	2		1	1												2
Engravers	12			12									2	3		7

Errand boys	12	------	4	8	------	------	------	------	1	9	1	1	------	------	------	------
Jewelers	39	------	------	39	------	------	------	------	------	------	------	------	------	8	9	22
Jewelers (F.)	2	------	2	------	------	------	------	------	------	1	------	1	------	------	------	------
Jewelers, apprentices	6	------	------	6	------	------	------	------	1	2	3	------	------	------	------	------
Managers and foremen	12	------	1	11	------	------	------	------	------	------	------	------	------	------	------	12
Office clerks	1	------	------	1	------	------	------	------	------	------	------	------	------	1	------	------
Office clerks (F.)	11	------	11	------	------	------	------	------	------	2	5	2	2	------	------	------
Opticians	3	------	------	3	------	------	------	------	------	------	------	1	------	------	------	2
Opticians (F.)	1	------	1	------	------	------	------	------	------	------	------	------	------	1	------	------
Polishers	6	------	------	6	------	------	------	------	------	------	------	------	------	5	------	1
Porters and packers	12	------	------	12	------	------	------	------	------	1	------	7	3	1	------	------
Salesmen	77	------	5	72	------	------	------	------	------	------	1	1	6	9	13	47
Saleswomen	17	------	17	------	------	------	------	------	------	------	7	1	6	3	------	------
Shipping clerks	4	------	------	4	------	------	------	------	------	------	------	1	2	1	------	------
Solicitors	11	------	------	11	------	------	------	------	------	------	------	------	11	------	------	------
Stenographers (F.)	6	------	6	------	------	------	------	------	------	------	3	------	3	------	------	------
Stock clerks	4	------	------	4	------	------	------	------	------	------	1	1	1	1	------	------
Teamsters	1	------	------	1	------	------	------	------	------	------	------	------	1	------	------	------
Watchmakers	30	------	1	29	------	------	------	------	------	------	------	------	------	2	4	24
Window trimmers	1	------	------	1	------	------	------	------	------	------	------	------	------	------	------	1
Totals	285	2	58	225	------	------	------	------	2	15	23	19	40	36	27	123
Leather Goods.	1	establishment.														
Managers and foremen	1	------	------	------	1	------	------	------	------	------	------	------	------	------	------	1
Salesmen	2	------	------	------	2	------	------	------	------	------	------	1	------	1	------	------
Saleswomen	1	------	1	------	------	------	------	------	------	------	------	------	1	------	------	------
Totals	4	------	1	------	3	------	------	------	------	------	------	1	1	1	------	1
Millinery.	24	establishments.														
Bookkeepers (F.)	3	------	3	------	------	------	------	------	------	------	------	2	1	------	------	------
Cashiers (F.)	3	------	3	------	------	------	------	------	------	1	------	2	------	------	------	------
Errand boys	3	------	1	2	------	------	------	------	------	3	------	------	------	------	------	------
Makers	5	------	5	------	------	------	------	------	------	1	3	------	------	------	------	1
Makers (F.)	91	------	91	------	------	------	------	1	9	24	18	21	16	2	------	------
Makers, apprentices	4	------	4	------	------	------	------	4	------	------	------	------	------	------	------	------
Makers, apprentices (F.)	9	------	9	------	------	------	------	2	6	1	------	------	------	------	------	------
Makers, helpers (F.)	6	------	6	------	------	------	------	1	4	1	------	------	------	------	------	------
Managers and foremen	9	------	1	6	2	------	------	------	------	------	------	------	1	------	------	8
Managers and forewomen	4	------	4	------	------	------	------	------	------	------	------	------	------	1	------	3
Office clerks (F.)	1	------	1	------	------	------	------	------	------	------	------	1	------	------	------	------
Porters and packers	4	------	------	4	------	------	------	------	------	1	1	2	------	------	------	------
Salesmen	1	------	------	------	1	------	------	------	------	------	------	------	------	1	------	------
Saleswomen	111	------	111	------	------	------	------	------	------	7	25	23	25	17	3	11

TABLE No. 9. CITY OF LOS ANGELES.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Millinery—Continued.																
Stock clerks	1			1								1				
Stock clerks (F.)	2		2						1	1						
Trimmers	1		1													1
Trimmers (F.)	34		34									2	5	14	2	11
Trimmers, apprentices (F.)	23		23					7	16							
Wrappers (F.)	1		1						1							
Totals	316		300	13	3			15	37	40	47	54	48	35	5	35
Music, Musical Instruments, etc.	11	establishments.														
Bookkeepers	9			9									2	2		5
Bookkeeprs (F.)	8		8									2	5	1		
Cabinet makers	1			1												1
Cashiers	4			4										1	3	
Cashiers (F.)	4		4								2		2			
Collectors	8		1	7								2	3	2		1
Errand boys	8		1	7						8						
Finishers	6		4	2									1	3	2	
Managers and foremen	22		3	18	1							1			5	16
Office clerks	4		1	3					1	1		2				
Office clerks (F.)	5		5								4			1		
Porters and packers	24		3	13	8						4	11	6	3		
Repair men, tuners, etc.	46		6	28	12					2		1		10	12	21
Salesmen	100		14	86						6	4	8	9	14	9	50
Saleswomen	20		20							9	6	4				1
Shipping clerks	5		1	3	1							1		1	1	2
Solicitors	5	2	2	1									2	1		2
Stenographers	2		1	1										2		
Stenographers (F.)	13		13							3	3	6				1
Stock clerks	2			2							1		1			
Stock clerks (F.)	1		1							1						
Teamsters	5		1	4									2	3		

Telephone girls	1		1							1						
Totals	303	2	90	189	22				1	31	24	38	33	44	32	100
Paints, Glass, Wall Paper, etc.	5	establishments.														
Bookkeepers	2		1				1								1	1
Bookkeepers (F.)	2		2									2				
Decorators	10		10											3	6	1
Managers and foremen	12		11	1											11	1
Paper hangers	6			6											5	1
Salesmen	10		2	3	5							3	4	1		2
Seamstresses	2		2								1	1				
Stock clerks	1			1								1				
Teamsters	3			2	1						3					
Upholsterers	1			1											1	
Totals	49		28	14	6		1				4	7	4	4	24	6
Stationery.	10	establishments.														
Artists (F.)	7		7						2	1			3	1		
Bookkeepers	3			3											1	2
Bookkeepers (F.)	11		11								1	1	5	3	1	
Cashiers	2			1	1									1		1
Cashiers (F.)	2		2								2					
Collectors	2			2										1		1
Credit men	1				1											1
Die stampers	5		3	2								1	2	2		
Die stampers (F.)	5		5						2	1	2					
Engravers	1		1													1
Engravers, apprentices	1		1							1						
Errand boys	18	1	1	16					1	16	1					
Managers and foremen	23		3	14	5		1								1	22
Office clerks	6			5	1						1	3		1		1
Office clerks (F.)	11		11							1	1	6	2		1	
Packers (F.)	1		1							1						
Picture frame makers	3		3										1	1	1	
Picture framers	5			5							1			4		
Porters and packers	2			2								1		1		
Printers	11		6	5							2	2	2	3	1	1
Printers (F.)	3		3						1			2				
Salesmen	68		3	49	16					2	4	9	15	16	7	15
Saleswomen	13		13									8	3	2		
Shipping clerks	11			9	2					1	1	2	4	2	1	
Solicitors	6				6								2	1		3

TABLE No. 9. CITY OF LOS ANGELES.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Stationery—Continued.																
Stenographers (F.)	8	-----	8	-----	-----	-----	-----	-----	-----	-----	2	3	2	1	-----	-----
Stock clerks	9	-----	1	7	1	-----	-----	-----	-----	1	1	2	4	1	-----	-----
Totals	238	1	83	120	33	-----	1	-----	6	25	19	40	45	41	14	48
Miscellaneous.	21	establishments.														
Bookkeepers	3	-----	-----	2	1	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	2
Bookkeepers (F.)	8	1	7	-----	-----	-----	-----	-----	1	-----	-----	-----	6	1	-----	-----
Cashiers	1	-----	-----	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
Cashiers (F.)	4	-----	4	-----	-----	-----	-----	-----	-----	1	2	-----	1	-----	-----	-----
Chemists	2	-----	-----	2	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	1	-----
Cigar makers	3	-----	3	-----	-----	-----	-----	-----	-----	-----	-----	-----	3	-----	-----	-----
Cigar makers (F.)	6	-----	6	-----	-----	-----	-----	-----	-----	-----	-----	6	-----	-----	-----	-----
Collectors	2	-----	-----	1	1	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	1
Errand boys	9	-----	3	6	-----	-----	-----	-----	1	5	2	1	-----	-----	-----	-----
Feather dyers	2	-----	-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	2	-----	-----
Feather workers (F.)	6	-----	6	-----	-----	-----	-----	-----	-----	4	1	-----	1	-----	-----	-----
Managers and foremen	25	-----	7	5	13	-----	-----	-----	-----	-----	-----	-----	-----	2	-----	23
Mechanics	24	-----	4	20	-----	-----	-----	-----	-----	-----	1	1	3	4	11	4
Office clerks	9	-----	5	3	1	-----	-----	-----	-----	-----	1	2	1	3	2	-----
Office clerks (F.)	15	-----	15	-----	-----	-----	-----	-----	1	1	1	4	5	1	2	-----
Porters and packers	7	-----	-----	3	4	-----	-----	-----	-----	-----	3	1	1	2	-----	-----
Photographers	1	-----	-----	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	-----
Salesmen	159	-----	13	127	19	-----	-----	-----	1	5	9	27	30	33	16	38
Saleswomen	8	-----	8	-----	-----	-----	-----	-----	-----	1	5	2	-----	-----	-----	-----
Seamstresses	2	-----	2	-----	-----	-----	-----	-----	-----	1	-----	1	-----	-----	-----	-----
Shipping clerks	5	-----	-----	3	2	-----	-----	-----	-----	-----	1	-----	4	-----	-----	-----
Stenographers	2	-----	-----	2	-----	-----	-----	-----	-----	-----	1	-----	-----	1	-----	-----
Stenographers (F.)	11	-----	11	-----	-----	-----	-----	-----	-----	3	3	-----	2	2	1	-----
Stock clerks	1	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
Teamsters	2	-----	-----	-----	2	-----	-----	-----	-----	-----	1	-----	1	-----	-----	-----
Totals	317	1	95	176	45	-----	-----	-----	4	21	31	46	59	52	34	70

TABLE No. 10. CITY OF LOS ANGELES.

Miscellaneous Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Feed and Fuel.	8	establishments.														
Bookkeepers	7			5	2							1				6
Bookkeepers (F.)	8		8									3	4		1	
Cashiers	1			1												1
Cashiers (F.)	2		2										1			1
Collectors	3		2	1								1	2			
Engineers	1				1									1		
Errand boys	1			1							1					
Managers and foremen	8		3	5									2	1	1	4
Office clerks	1				1									1		
Office clerks (F.)	2		2									2				
Porters and packers	5				4		1					4	1			
Salesmen	11		4	7											1	10
Shipping clerks	1				1										1	
Stablemen	1						1							1		
Stenographers	1			1									1			
Stenographers (F.)	1		1									1				
Teamsters	48			16	32							14	29	5		
Warehousemen	19			1	18							1	18			
General help	30			30							1	29				
Totals	151		22	68	59		2				2	56	58	9	4	22
Lumber and Shipping.	8	establishments.														
Bookkeepers	10		5	5										1	5	4
Bookkeepers (F.)	3		3								1				1	1
Cashiers	1		1													1
Collectors	1			1											1	
Lumber hands	57		42	15							5	7	38	7		
Managers and foremen	34		20	13	1								1	5	7	21
Mill hands	8		2	6							1	1	2	1	2	1
Office clerks	20		9	11									4	8		8
Office clerks (F.)	1		1										1			
Planers	1		1										1			
Salesmen	39		30	9								1	12	16	5	5

TABLE No. 10. CITY OF LOS ANGELES.

Miscellaneous Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Lumber and Shipping.—Continued.																
Shipping clerks	1			1											1	
Stenographers	4	1	2	1								1	2	1		
Stenographers (F.)	3		3									1		2		
Stickers	1		1												1	
Tallymen	3		3										2	1		
Teamsters	53		30	23							4	8	40	1		
Telephone girls	1		1										1			
Watchmen	3		2				1					1	2			
General help	101		49	45	7						2	48	5	1	45	
Totals	345	1	205	130	8		1				13	68	111	44	68	41
Offices.	12	establishments.														
Bookkeepers	2		1	1										1	1	
Bookkeepers (F.)	9		9							1		3	2		2	1
Civil engineers	1			1												1
Collectors	2		2									1	1			
Draughtsmen	12		12								1	1	1	2	2	5
Editors	2			2										1		1
Errand boys	12		12							10	2					
Insurance adjusters	7			7												7
Laboratory help	2			2												2
Laboratory apprentices	2			2						1	1					
Managers and foremen	13		9	4										2		11
Managers and forewomen	1		1													1
Office clerks	79		78	1								10	25	20	8	16
Office clerks (F.)	14		14									2	8	2	2	
Porters	2			1	1							1		1		
Salesmen	10		10											2		8
Solicitors	2			2										2		
Stenographers	3		2	1										2		1
Stenographers (F.)	47	1	46							1	22	14	4	4	2	

Telephone girls	3		3								2	1				
Totals	225	1	199	24	1					13	28	33	41	39	17	54
Teaming, Livery and Storage.	25	est	ablis	hmen	ts.											
Agents, depot	3				3									3		
Blacksmiths	9			9									2	5	1	1
Bookkeepers	6			5	1								1	2		3
Bookkeepers (F.)	3		3										2	1		
Cashiers	2			1	1							1				1
Collectors	2			1	1									2		
Drivers	251			28	217		6				27	65	157			2
Errand boys	1			1						1						
Harness makers	2			2								1		1		
Harness washers	5				5								5			
Managers and foremen	50		1	30	16		3							1	8	41
Office clerks	105			91	14							8	33	55	6	3
Office clerks (F.)	6		6								3	1	2			
Painters	2			2									1	1		
Porters	21				21							17	4			
Riggers	4				4									4		
Stablemen	90			1	80		9					44	43	1	2	
Stenographers	3			3										3		
Stenographers (F.)	15		15							2	1	10	2			
Teamsters	256			53	197		6				3	29	154	69	1	
Telephone girls	4		4									4				
Wagon washers	8				6		2						6	2		
Warehousemen	61			22	38		1					25	33	3		
Totals	909		29	249	604		27			3	34	205	445	153	18	51
General.	17	est	ablis	hmen	ts.											
Artists	2		1	1												2
Auctioneers	1		1													1
Bill posters	4				4											4
Bill posters, helpers	4				4								4			
Bookkeepers	4		3	1									1		1	2
Bookkeepers (F.)	3		3										1			2
Canvassers	8			8								1	7			
Carpenters	1		1												1	
Engineers	8			3	5									2	4	2
Errand boys	2		2								2					
Janitresses	20	20								20						
Managers and foremen	22		14	3	5									1	1	20
Mechanical instructors	7		7											1	1	5

TABLE NO. 10. CITY OF LOS ANGELES.

Miscellaneous Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
General—Continued.																
Nurses	27		27					22		2	1	1		1		
Office clerks	19		14	4			1					2	2	7		8
Office clerks (F.)	6		6								3		2	1		
Painters	26		22	4									2	4		20
Painters, helpers	20		16	4					2	2	1	2	5	6	2	
Porters and janitors	70		14	49	4	1	2			2		57	10		1	
Salesmen	4		4												1	3
Solicitors	6		6													6
Stablemen	1			1									1			
Stenographers (F.)	10		10							1		2	4	3		
Stock clerks	2		2									1	1			
Teamsters	4		4									4				
General help	83		3	29	44		7				5	46	28		4	
Totals	364	20	160	107	66	1	10	22	2	27	12	116	68	26	16	75

TABLE No. 11. CITY OF LOS ANGELES.

Summary of All Establishments. Hours of Labor and Wages.

INDUSTRY.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing.																
Automobiles and accessories	214	1	19	194						4	13	18	23	106	25	25
Awnings, tents, etc.	33		15	18						2	10	6	9	6		
Bakery products	349	3	57	160	119	10			2	42	50	79	51	81	25	19
Bar and store fixtures	133		129	2	1		1			7	5	12	23	31	36	19
Blacksmithing and horseshoeing	17			17								2		7		8
Boilers, engines and tanks	288	1	36	251					1		12	71	44	70	30	60
Boxes, paper	173		101	72					27	62	25	15	13	19	5	7
Boxes, wood	156		9	116	31					18	24	53	27	10	8	16
Brick, tile and pottery	1052		141	709	202					21	198	522	107	90	57	57
Building materials, cement, etc.	650		33	593	5		19			5	203	174	120	60	49	39
Carriages and wagons	75		2	73								11	18	27	16	3
Cigars and cigarettes	252		233	19				1	3	36	20	33	58	66	24	11
Cleaning and dyeing	135		67	53	14	1				16	36	29	22	25	5	2
Clothing, garments, etc.	1411	2	1236	173				15	115	374	404	211	104	51	45	92
Coffins	45		4	41							1	5	6	17	12	4
Confectionery	887	1	441	204	241				41	291	190	122	73	56	48	66
Construction work, general contracting, etc.	3172	2	1520	881	769				1	14	141	1033	506	617	489	371
Copper and brass goods	120		8	69	43				1	5	5	10	19	14	49	17
Dairy products	259		120	119	17		3			3	4	62	58	102	24	6
Drugs and chemicals	63		11	52					1	9	8	3	17	6	4	15
Electrical goods and supplies	288		134	134	20					19	36	36	39	44	55	59
Elevators	8		8										4		2	2
Fertilizers	54			45	9							46	4	2		2
Fixtures, gas and electric	181		103	78					5	25	13	17	11	39	49	22
Flouring mill products	312		65	56	180	8	3			23	10	39	115	36	37	52
Foundries	91		5	86					2	1	3	19	18	25	10	13
Furniture	206	2	50	96	58					8	8	25	69	37	31	28
Garages and repair shops	124	1	13	74	33		3		1	5	6	8	11	43	33	17
Glass and glassware	86		58	28				2		2	3	8	20	24	14	13
Gloves	24		24						3	7	4	3	3	2	2	
Harness and saddlery	178		21	155	1	1				10	32	33	37	23	10	33
Hats, caps and furnishings	129	4	96	29					9	15	32	20	8	17	6	22
Ice	448	3	22	138	234	12	39			1	18	64	162	65	83	55

TABLE No. 11. CITY OF LOS ANGELES.

Summary of All Establishments. Hours of Labor and Wages.—Continued.

INDUSTRY.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Incubators	36	------	6	15	15	------	------	------	------	------	4	13	6	9	1	3
Iron, structural and architectural	1046	------	12	988	35	5	6	------	7	13	54	275	195	186	208	108
Jewelry	119	1	15	103	------	------	------	------	2	13	7	16	19	16	20	26
Laundries, hand	27	------	11	5	11	------	------	------	------	9	8	------	2	3	2	3
Laundries, steam	2690	29	1799	747	94	4	17	------	164	1098	583	268	265	149	48	115
Leather and leather goods	186	------	106	13	67	------	------	------	7	11	60	46	45	8	1	8
Liquors, malt	374	------	319	52	------	3	------	------	1	------	------	6	31	174	90	72
Lithographing	274	------	202	68	2	------	2	------	23	44	29	36	38	21	15	68
Lumber and milling	1719	1	94	1623	------	------	1	------	1	16	45	271	603	436	232	115
Machinery and machine shop products	815	1	126	668	16	------	4	------	5	27	42	109	144	160	156	172
Mattresses, pillows, bedding, etc.	197	------	91	106	------	------	------	------	------	23	15	54	23	47	14	21
Millinery	7	------	7	------	------	------	------	------	------	------	2	1	------	2	1	1
Moldings, picture	47	------	6	41	------	------	------	------	1	3	4	7	11	12	4	5
Newspapers	1586	4	1209	371	------	------	2	10	38	74	103	156	159	176	118	752
Oils, producing and refining	522	------	67	219	122	6	108	------	------	1	1	59	122	89	139	111
Paints, varnishes, etc.	193	------	98	74	21	------	------	------	1	4	13	62	17	39	8	49
Pastes, macaroni, etc.	27	------	27	------	------	------	------	------	------	11	2	3	5	2	4	------
Patterns and models	28	------	5	23	------	------	------	------	------	2	------	------	3	------	2	21
Pennants and sporting goods	71	------	49	22	------	------	------	------	3	24	18	8	1	6	3	8
Photographs	78	------	33	45	------	------	------	------	1	10	12	8	12	14	1	20
Pickles, preserves, sauces, etc.	53	------	21	18	14	------	------	------	3	8	4	15	9	4	5	5
Plating	11	------	6	5	------	------	------	------	------	3	------	1	------	4	1	2
Plumbing, steam and gas fitting	206	------	110	96	------	------	------	------	3	8	5	48	26	23	16	77
Printing and bookbinding	861	2	673	148	38	------	------	2	31	125	113	115	91	105	108	171
Restaurants	2847	230	879	257	1159	205	117	5	158	1005	820	389	148	133	56	133
Rubber goods	32	5	27	------	------	------	------	------	------	7	2	8	8	5	1	1
Safes and vaults	11	------	11	------	------	------	------	------	------	------	------	1	2	3	4	1
Slaughtering and meat packing	794	3	28	102	620	33	8	------	1	22	108	259	141	132	50	81
Soap, tallow and glue	87	------	87	------	------	------	------	------	------	------	10	43	13	10	4	7
Soda and mineral water	13	------	3	10	------	------	------	------	------	------	2	3	3	3	1	1
Stencils and stamps	63	------	9	54	------	------	------	------	------	8	6	1	10	19	5	14
Stone and marble	60	------	60	------	------	------	------	------	------	------	------	------	9	------	1	50
Stoves and furnaces	42	------	29	13	------	------	------	------	------	------	4	6	11	7	9	5

Tailor shops	1172	1	677	471	23	------	------	2	28	81	163	184	95	172	185	262
Tinware, sheet metal, etc.	462	------	104	345	13	------	------	------	------	15	53	56	113	104	89	32
Tools, hardware, etc.	408	------	31	377	------	------	------	------	------	6	7	17	138	69	101	70
Trunks, valises, etc.	59	------	6	53	------	------	------	------	1	6	9	6	14	16	2	5
Wire and wire products	7	------	------	7	------	------	------	------	------	------	------	------	------	3	4	------
Miscellaneous	282	2	82	190	3	3	2	------	1	22	24	50	68	36	25	56
Totals	29125	299	11906	12064	4230	291	335	37	692	3724	3846	5389	4399	4215	3017	3806
Wholesale.																
Boots and shoes	48	------	25	23	------	------	------	------	------	3	4	2	15	4	5	15
Building materials	203	------	61	65	77	------	------	------	------	1	2	94	44	15	8	39
Butchers' supplies	40	------	8	23	9	------	------	------	1	5	5	7	9	3	7	3
Cigars, cigarettes, etc.	110	4	75	31	------	------	------	------	------	4	5	17	25	16	6	37
Clothing and furnishings	112	------	25	87	------	------	------	------	3	8	9	18	20	10	7	37
Commission merchants	533	3	169	70	251	17	23	------	------	11	15	105	152	103	31	116
Drugs and chemicals	348	------	196	150	------	------	2	------	4	68	52	71	50	22	18	63
Dry goods	71	------	4	67	------	------	------	------	------	9	2	4	18	9	7	22
Furniture	151	------	55	35	61	------	------	------	------	27	17	27	21	20	6	33
Gas and electric goods	298	1	272	25	------	------	------	------	1	9	18	39	61	38	39	93
Glass	57	------	29	26	------	------	2	------	------	------	2	4	20	10	4	17
Groceries	570	------	143	427	------	------	------	------	3	37	47	107	117	55	20	184
Hardware	802	------	133	667	1	1	------	------	5	65	79	169	190	78	36	180
Importers	18	------	18	------	------	------	------	------	------	5	4	2	------	1	1	5
Jewelry	124	------	64	60	------	------	------	------	1	23	13	19	8	18	2	40
Leather goods	22	------	7	15	------	------	------	------	------	2	1	------	8	3	------	8
Machinery, implements, engines, etc.	561	------	399	162	------	------	------	------	4	18	29	44	103	94	80	189
Manufacturers' agencies	148	------	82	66	------	------	------	------	1	7	4	15	32	42	13	34
Meats	155	------	109	9	35	------	2	------	------	------	2	55	28	27	13	30
Millinery	143	------	119	24	------	------	------	------	15	26	17	23	17	22	1	22
Notions, toys, etc.	114	------	47	67	------	------	------	------	2	11	23	16	18	20	------	24
Paints, oils, wall paper, etc.	170	1	18	109	42	------	------	------	1	4	11	31	29	35	18	41
Paper	344	------	179	114	51	------	------	------	------	4	19	59	144	34	25	59
Plumbers' supplies	143	------	18	92	32	------	1	------	------	1	4	71	21	10	9	27
Rubber goods	15	------	3	12	------	------	------	------	------	1	3	2	1	3	------	5
Seeds	86	------	24	33	29	------	------	1	2	8	6	22	19	13	2	13
Stationery	73	------	18	55	------	------	------	------	1	5	14	22	11	3	1	16
Miscellaneous	179	1	50	103	25	------	------	------	------	11	10	28	47	20	6	57
Totals	5638	10	2350	2617	613	18	30	1	34	373	417	1073	1238	728	365	1409
Retail.																
Automobiles and accessories	136	1	16	119	------	------	------	------	------	4	8	22	19	30	17	36
Bicycles, motorcycles, etc.	70	------	12	53	5	------	------	------	------	2	4	7	21	10	14	12
Boots and shoes	307	------	53	229	25	------	------	------	------	31	28	35	54	84	32	43

TABLE NO. 11. CITY OF LOS ANGELES.

Summary of All Establishments. Hours of Labor and Wages.—Continued.

INDUSTRY.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Butcher shops	175	1	21	6	96	42	9			1	9	36	29	54	27	19
Clothing and furnishings	1221	4	791	363	61		2	1	27	120	226	206	169	201	68	203
Confectionery	151	13	90	31	17				1	49	50	19	11	7	4	10
Department stores	2286	34	1481	771					306	666	496	314	198	129	49	128
Dry goods	2973		2591	381	1			4	404	615	625	488	395	183	75	184
Drug stores	236	3	57	35	141				1	29	28	37	38	21	38	44
Florists and nurseries	43		15	12	13	3				10	2	7	3	12	3	6
Furniture	917	10	234	420	250		3	1	2	22	112	217	198	130	101	134
Fixtures, gas and electric	95		35	59	1					2	25	13	9	18	10	18
Groceries	928	42	217	73	464	117	15	1	30	105	137	241	252	88	19	55
Hardware	355		101	120	134				2	23	29	68	68	53	43	69
Household goods, crockery, etc.	199		55	144					2	37	55	37	43	12	1	12
Jewelry	285	2	58	225					2	15	23	19	40	36	27	123
Leather goods	4		1		3							1	1	1		1
Millinery	316		300	13	3			15	37	40	47	54	48	35	5	35
Music, musical instruments, etc.	303	2	90	189	22				1	31	24	38	33	44	32	100
Paints, glass, wall paper, etc.	49		28	14	6		1				4	7	4	4	24	6
Stationery	238	1	83	120	33		1		6	25	19	40	45	41	14	48
Miscellaneous	317	1	95	176	45				4	21	31	46	59	52	34	70
Totals	11604	114	6424	3553	1320	162	31	22	825	1848	1982	1952	1737	1245	637	1356
Miscellaneous.																
Feed and fuel	151		22	68	59		2				2	56	58	9	4	22
Lumber and shipping	345	1	205	130	8		1				13	68	111	44	68	41
Offices	225	1	199	24	1					13	28	33	41	39	17	54
Teaming, livery and storage	909		29	249	604		27			3	34	205	445	153	18	51
General	364	20	160	107	66	1	10	22	2	27	12	116	68	26	16	75
Totals	1994	22	615	578	738	1	40	22	2	43	89	478	723	271	123	243
Recapitulation.																
Manufacturing	29125	299	11906	12064	4230	291	335	37	692	3724	3846	5389	4399	4215	3017	3806
Wholesale	5638	10	2350	2617	613	18	30	1	34	373	417	1073	1238	728	365	1409

Retail	11604	114	6424	3553	1320	162	31	22	825	1848	1982	1952	1737	1245	637	1356
Miscellaneous	1994	22	615	578	738	1	40	22	2	43	89	478	723	271	123	243
Grand totals	48361	445	21295	18812	6901	472	436	82	1553	5988	6334	8892	8097	6459	4142	6814
Total males	36450	297	9532	18812	6901	472	436	48	421	2242	3262	7002	6940	5916	4023	6596
Total females	11911	148	11763	------	------	------	------	34	1132	3746	3072	1890	1157	543	119	218

TABLE No. 12. CITY OF LOS ANGELES.

Female Employees. Hours of Labor and Wages. (Tabulated by industry.)

INDUSTRY.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing.																
Automobiles and accessories	20	1	19	------	------	------	------	------	------	3	5	8	3	------	1	------
Awnings, tents, etc.	15	------	15	------	------	------	------	------	------	2	9	3	1	------	------	------
Bakery products	55	1	54	------	------	------	------	------	2	29	11	10	------	2	------	1
Bar and store fixtures	3	------	3	------	------	------	------	------	------	------	------	1	2	------	------	------
Boilers, engines and tanks	8	1	7	------	------	------	------	------	1	------	4	2	1	------	------	------
Boxes, paper	101	------	101	------	------	------	------	------	27	57	11	3	1	2	------	------
Boxes, wood	9	------	9	------	------	------	------	------	------	4	1	3	------	------	------	1
Brick, tile and pottery	7	------	7	------	------	------	------	------	------	------	4	------	1	2	------	------
Building materials, cement, etc.	3	------	3	------	------	------	------	------	------	------	1	1	1	------	------	------
Carriages and wagons	2	------	2	------	------	------	------	------	------	------	------	2	------	------	------	------
Cigars and cigarettes	83	------	83	------	------	------	------	1	3	36	15	11	6	7	4	------
Cleaning and dyeing	66	------	66	------	------	------	------	------	------	16	26	21	1	2	------	------
Clothing, garments, etc.	1148	------	1148	------	------	------	------	15	112	349	388	188	59	15	4	18
Coffins	3	------	3	------	------	------	------	------	------	------	------	1	------	2	------	------
Confectionery	416	1	415	------	------	------	------	------	41	272	66	26	9	------	2	------
Construction work, general contracting, etc.	25	2	23	------	------	------	------	------	------	3	2	9	5	2	2	2
Dairy products	24	------	24	------	------	------	------	------	------	3	4	8	7	2	------	------
Drugs and chemicals	10	------	10	------	------	------	------	------	1	1	1	1	2	3	1	------
Electrical goods and supplies	28	------	28	------	------	------	------	------	------	1	8	3	6	7	3	------

TABLE No. 12. CITY OF LOS ANGELES.

Female Employees. Hours of Labor and Wages. (Tabulated by industry.)—Continued.

INDUSTRY.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 nd over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Fixtures, gas and electric	8	-----	8	-----	-----	-----	-----	-----	-----	-----	2	4	1	1	-----	-----
Flouring mill products	39	-----	39	-----	-----	-----	-----	-----	-----	22	8	5	2	-----	1	1
Foundries	4	-----	4	-----	-----	-----	-----	-----	-----	-----	1	-----	2	1	-----	-----
Furniture	12	2	10	-----	-----	-----	-----	-----	-----	1	1	4	4	2	-----	-----
Garages and repair shops	5	1	4	-----	-----	-----	-----	-----	-----	-----	3	1	1	-----	-----	-----
Glass and glassware	3	-----	3	-----	-----	-----	-----	-----	-----	-----	-----	-----	3	-----	-----	-----
Gloves	20	-----	20	-----	-----	-----	-----	-----	3	7	3	3	3	1	-----	-----
Harness and saddlery	19	-----	19	-----	-----	-----	-----	-----	-----	4	4	3	7	-----	1	-----
Hats, caps and furnishings	68	1	67	-----	-----	-----	-----	-----	8	13	25	13	5	4	-----	-----
Ice	8	-----	8	-----	-----	-----	-----	-----	-----	-----	3	1	2	1	-----	1
Incubators	2	-----	2	-----	-----	-----	-----	-----	-----	-----	1	-----	1	-----	-----	-----
Iron, structural and architectural	9	-----	9	-----	-----	-----	-----	-----	-----	-----	1	2	5	1	-----	-----
Jewelry	15	-----	15	-----	-----	-----	-----	-----	-----	3	2	6	3	1	-----	-----
Laundries, hand	11	-----	11	-----	-----	-----	-----	-----	-----	8	3	-----	-----	-----	-----	-----
Laundries, steam	1746	-----	1746	-----	-----	-----	-----	-----	163	1000	386	126	57	12	1	1
Leather and leather goods	85	-----	85	-----	-----	-----	-----	-----	7	9	57	11	1	-----	-----	-----
Liquors, malt	4	-----	4	-----	-----	-----	-----	-----	-----	-----	-----	1	2	1	-----	-----
Lithographing	71	-----	71	-----	-----	-----	-----	-----	11	28	17	7	4	2	-----	2
Lumber and milling	18	1	17	-----	-----	-----	-----	-----	1	1	4	1	3	5	1	2
Machinery and machine shop products	36	1	35	-----	-----	-----	-----	-----	-----	2	8	8	8	7	-----	3
Mattresses, pillows, bedding, etc.	39	-----	39	-----	-----	-----	-----	-----	-----	12	8	16	1	-----	-----	2
Millinery	3	-----	3	-----	-----	-----	-----	-----	-----	-----	2	1	-----	-----	-----	-----
Moldings, picture	5	-----	5	-----	-----	-----	-----	-----	-----	-----	1	3	1	-----	-----	-----
Newspapers	135	-----	135	-----	-----	-----	-----	-----	-----	7	37	27	14	34	6	10
Oils, producing and refining	14	-----	14	-----	-----	-----	-----	-----	-----	-----	-----	1	6	4	1	2
Paints, varnishes, etc.	18	-----	18	-----	-----	-----	-----	-----	-----	2	6	1	5	3	-----	1
Pastes, macaroni, etc.	14	-----	14	-----	-----	-----	-----	-----	-----	11	-----	3	-----	-----	-----	-----
Pennants and sporting goods	47	-----	47	-----	-----	-----	-----	-----	2	19	17	7	1	1	-----	-----
Photographs	32	-----	32	-----	-----	-----	-----	-----	-----	7	8	5	5	4	1	2
Pickles, preserves, sauces, etc.	16	-----	16	-----	-----	-----	-----	-----	2	6	2	4	1	1	-----	-----
Plating	1	-----	1	-----	-----	-----	-----	-----	-----	1	-----	-----	-----	-----	-----	-----
Plumbing, steam and gas fitting	2	-----	2	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	1	-----	-----
Printing and bookbinding	216	2	214	-----	-----	-----	-----	-----	15	74	76	24	16	5	2	4

Restaurants	228	35	193						20	111	62	17	10	6		2
Rubber goods	5		5							4		1				
Safes and vaults	2		2										1		1	
Slaughtering and meat packing	31	3	28							12	6	6	6	1		
Soap, tallow and glue	14		14								10		3	1		
Stencils and stamps	9		9								3	1	1	3	1	
Tailor shops	475		475					2	21	62	145	154	68	18	2	3
Tinware, sheet metal, etc.	29		29							3	20	4	2			
Tools, hardware, etc.	5		5							1			3	1		
Trunks, valises, etc.	6		6								6					
Miscellaneous	49	1	48							10	15	10	10	2		2
Totals	5604	53	5551					18	440	2216	1510	782	373	170	35	60
Wholesale.																
Boots and shoes	10		10								1	1	5	1		2
Building materials	17		17									3	6	3	1	4
Butchers' supplies	5		5							1		3		1		
Cigars, cigarettes, etc.	14		14							4	2	4	3			1
Clothing and furnishings	16		16						1			9	2	1		3
Commission merchants	47	2	45							5	2	11	16	8	2	3
Drugs and chemicals	57		57							20	3	16	15	2	1	
Dry goods	4		4							2		2				
Furniture	16		16							1	2	4	5	3		1
Gas and electric goods	61	1	60							1	5	9	22	18	6	
Glass	5		5								1		3		1	
Groceries	98		98						3	29	26	11	15	9	4	1
Hardware	85		85							2	24	30	21	4	3	1
Importers	9		9							4	2	2		1		
Jewelry	25		25							3	8	12	1	1		
Leather goods	3		3								1		2			
Machinery, implements, engines, etc.	60		60							7	10	10	20	8	4	1
Manufacturers' agencies	34		34							3	3	5	18	5		
Meats	6		6								1		1	3	1	
Millinery	94		94						15	21	17	11	12	13		5
Notions, toys, etc.	32		32						1	5	19	2	3	2		
Paints, oils, wall paper, etc.	11	1	10						1		2	4	3	1		
Paper	24		24							2	7	5	5	3	2	
Plumbers' supplies	18		18									13	2	1	1	1
Rubber goods	2		2								1	1				
Seeds	24		24							6	4	9	4			1
Stationery	18		18							4	6	4	1	1	1	1
Miscellaneous	23		23							4	3	2	7	3	1	3
Totals	818	4	814						21	124	150	183	192	92	28	28

TABLE No. 12. CITY OF LOS ANGELES.

Female Employees. Hours of Labor and Wages. (Tabulated by industry.)—Continued.

INDUSTRY.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Retail.																
Automobiles and accessories	17	1	16							1		7	6	3		
Bicycles, motorcycles, etc.	9		9								1	3	4			1
Boots and shoes	52		52							9	15	11	11	5		1
Butcher shops	14	1	13								1	3	8	2		
Clothing and furnishings	735	3	732					1	22	97	199	160	117	96	12	31
Confectionery	94	6	88							42	36	12	4			
Department stores	1400	34	1366						252	585	315	122	57	31	5	33
Dry goods	2090		2090					4	329	536	549	352	212	72	10	26
Drug stores	49		49						1	15	17	13	3			
Florists	4		4							1	1	1	1			
Furniture	138		138						1	15	69	31	14	2	6	
Fixtures, gas and electric	6		6									4		1	1	
Groceries	143	23	120						22	14	40	46	17	3		1
Hardware	28		28							3	10	7	2	1	4	1
Household goods	55		55							5	38	7	3			2
Jewelry	47	1	46							3	16	7	14	5		2
Leather goods	1		1										1			
Millinery	288		288					11	37	35	43	51	47	34	5	25
Music, musical instruments, etc.	32		32							5	9	8	7	2		1
Paints, glass, wall paper, etc.	4		4								1	3				
Stationery	61		61						5	4	8	20	15	7	2	
Miscellaneous	60	1	59						2	11	12	13	15	4	3	
Totals	5327	70	5257					16	671	1381	1380	881	558	268	48	124
Miscellaneous.																
Feed and fuel	13		13									6	5		1	1
Lumber and shipping	8		8								1	1	2	2	1	1
Offices	74	1	73							2	24	20	14	6	6	2
Teaming, livery and storage	28		28							2	4	15	6	1		
General	39	20	19							21	3	2	7	4		2
Totals	162	21	141							25	32	41	31	13	8	6

Recapitulation.																
Manufacturing	5604	53	5551	------	------	------	------	18	440	2216	1510	782	373	170	35	60
Wholesale	818	4	814	------	------	------	------	------	21	124	150	183	192	92	28	28
Retail	5327	70	5257	------	------	------	------	16	671	1381	1380	881	558	268	48	124
Miscellaneous	162	21	141	------	------	------	------	------	------	25	32	44	34	13	8	6
Grand totals	11911	148	11763	------	------	------	------	34	1132	3746	3072	1890	1157	543	119	218

TABLE No. 13. CITY OF OAKLAND.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Awnings, Tents, etc.	3	establishments.														
Manufacturing:																
Awning hangers	3		3										2	1		
Blacksmiths	1			1											1	
Carpenters	1			1										1		
Managers and foremen	2			2											2	
Operators (F.)	4		4								2	1	1			
Sail makers	1		1											1		
Tent makers	3			3										3		
Tent makers, helpers	2			2							2					
General help	4			4						1		1	2			
Clerical:																
Bookkeepers (F.)	2		2								1	1				
Collectors	1			1											1	
Office clerks (F.)	1		1										1			
Totals	25		11	14						1	5	3	6	6	4	
Bakery Products.	11	establishments.														
Manufacturing:																
Bakers	53	6	3	44								5		7	20	21
Bakers, apprentices	10	3	1	6					2	1	2	2	3			
Bakers, helpers	24	11		13							1	10	7	4	2	
Cooks	9			3	6						1	1		3	1	3
Drivers	42		3	17	19		3				3	13	3	5	17	1
Kitchen help	10			1	9						10					
Managers and foremen	6			4	2											6
Porters and packers	5			1	4							2	1		1	1
Stablemen	6		1	1	4					3	1	1			1	
Waiters	17				17						1	13		2		1
Waitresses	10		10							10						
Clerical:																
Bookkeepers	3			2	1								1	1	1	

Cashiers (F.)	1		1									1				
Collectors	3				3							2	1			
Office clerks	3			3							1	1		1		
Office clerks (F.)	1		1							1						
Saleswomen	19		19							11	5	2		1		
Totals	222	20	39	95	65		3		2	26	25	53	16	24	43	33
Bar and Store Fixtures.	1	establishment.														
Manufacturing:																
Cabinet makers	3		3													3
Cabinet makers, apprentices	1		1								1					
Totals	4		4								1					3
Boilers, Engines and Tanks.	5	establishments.														
Manufacturing:																
Blacksmiths	2		1	1											1	1
Blacksmiths, apprentices	1			1								1				
Blacksmiths, helpers	4			4									4			
Boat builders	9		9													9
Boat builders, apprentices	5		5						2	3						
Boat builders, helpers	3		3									3				
Boiler makers	3		3												3	
Boiler makers, helpers	3		3										3			
Casting chippers	4			4										4		
Core makers	1			1											1	
Cupolamen	1			1											1	
Draughtsmen	4		4											1	2	1
Draughtsmen, apprentices	1		1								1					
Flask makers	1			1										1		
Foundry helpers	6			6								3	3			
Machine hands	8		4	4										4	4	
Machinists	126		109	17										11	113	2
Machinists, apprentices	24		24						10	7	6	1				
Machinists, helpers	30		26	4						1		6	23			
Managers and foremen	8		3	5												8
Molders	8			8											8	
Molders, helpers	4			4									4			
Pattern makers	8		7	1												8
Pattern makers, apprentices	2		2						2							
Watchmen	2						2						1	1		
General help	4		2	2						1				3		

TABLE No. 13. CITY OF OAKLAND.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical:																
Bookkeepers	1			1												1
Bookkeepers (F.)	1		1											1		
Office clerks	1			1							1					
Salesmen	3		1	2												3
Stenographers	1			1										1		
Stenographers (F.)	1		1									1				
Totals	280		209	69			2		14	12	8	15	38	27	133	33
Boots and Shoes.	1	establishment.														
Manufacturing:																
Managers and foremen	6			6												6
Operators	52			52						4	4	17	9	12	4	2
Operators (F.)	35		35							12	9	12	2			
Porters and packers	1			1								1				
Clerical:																
Bookkeepers	1			1												1
Office clerks (F.)	1		1								1					
Totals	96		36	60						16	14	30	11	12	4	9
Boxes, Paper.	1	establishment.														
Manufacturing:																
Box makers	14			14					1	4	1	4	3	1		
Box makers (F.)	51		51						26	20	5					
Managers and foremen	1			1												1
Managers and forewomen	1		1											1		
Paper cutters	2			2									2			
Porters and packers	1			1							1					
Printers	3			3										1	2	
Teamsters	2			2						1			1			

Clerical:																
Bookkeepers	1		1													1
Cashiers (F.)	1		1										1			
Shipping clerks	1			1								1				
Stenographers (F.)	1		1							1						
Totals	79		55	24					27	26	7	5	7	3	2	2
Boxes, Wood.	2	establishments.														
Manufacturing:																
Box makers	10		2	8								1	8	1		
Engineers	1			1											1	
Managers and foremen	1			1												1
Mill hands	14		6	8						2	5	2	4	1		
Saw filers	1			1												1
Sawyers	7			7									3	4		
Teamsters	2				2									2		
Clerical:																
Bookkeepers	1		1													1
Bookkeepers (F.)	1		1										1			
Totals	38		10	26	2					2	5	3	16	8	1	3
Brick, Tile, Pottery, etc.	1	establishment.														
Manufacturing:																
Tile setters	3		3													3
Tile setters, helpers	2		2									2				
Totals	5		5									2				3
Butter and Dairy Products.	4	establishments.														
Manufacturing:																
Butter makers	5			1	4											5
Butter makers, helpers	5			5									5			
Drivers	42			26	16						1	1	2	1	35	2
Engineers	1		1													1
Ice cream makers	2				2										2	
Managers and foremen	5		1		4											5
Packers (F.)	2		2								2					
Stablemen	5			2	3								2	3		
General help	23	4	1	4	14								13	5		5

TABLE No. 13. CITY OF OAKLAND.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical:																
Bookkeepers	1		1													1
Bookkeepers (F.)	11		11								1	3	2	2	2	1
Office clerks	1		1							1						
Salesmen	1			1									1			
Saleswomen	7	2	5								6	1				
Stenographers (F.)	2		2							1				1		
Totals	113	6	25	39	43					2	10	5	25	12	39	20
Carriages and Wagons.	1	establishment.														
Manufacturing:																
Blacksmiths	4		4												4	
Blacksmiths, helpers	4		4								2		2			
Managers and foremen	1		1													1
Painters	2		2												2	
Wagon makers	3		3												3	
Wagon makers, apprentices	1		1											1		
Clerical:																
Bookkeepers (F.)	1		1										1			
Totals	16		16								2		3	1	9	1
Cigars and Cigarettes.	1	establishment.														
Manufacturing:																
Cigarette makers	3			3							2		1			
Total	3			3							2		1			
Clothing.	5	establishments.														
Manufacturing:																
Alteration hands (F.)	17		17							1	4	6	2	3		1
Cutters	2		1	1											1	1
Finishers (F.)	4		4									2	2			

Managers and foremen	3		2	1									1			2
Operators (F.)	21		21						2	8	6	2	3			
Porters and packers	3		3								2		1			
Pressers	2			2											2	
Tailors	25		22	3					1	4	1	3	1	1	9	5
General help	4		4						1	1		1			1	
Clerical:																
Bookkeepers (F.)	4		4							1	1	1			1	
Cashiers (F.)	1		1								1					
Errand boys	5		5						4	1						
Salesmen	13		13							1			4	4		4
Saleswomen	15		15						3	5	4			1		2
Shipping clerks	3		3									1	2			
Stock clerks	1		1					1								
Totals	123		116	7				1	11	22	19	16	16	9	14	15
Coffee, Spices, etc.	1	establishment.														
Manufacturing:																
Coffee roasters	1			1												1
Packers (F.)	1		1							1						
Totals	2		1	1						1						1
Confectionery.	2	establishments.														
Manufacturing:																
Candy makers	9			9							1	1	2	2		3
Chocolate dippers (F.)	15		15								1	11	3			
Packers (F.)	17		17							10	6	1				
Clerical:				1						1						
Errand boys	1			1							1					
Stock clerks	1		2							2						
Saleswomen	2															
Totals	45		34	11						13	9	13	5	2		3
Copper and Brass Goods.	1	establishment.														
Manufacturing:																
Brass finishers	9		9											4	3	2
Brass finishers, apprentices	2		2							1	1					
Brass polishers	3		3											1	2	
Foundry helpers	9		9										3	2	3	1
Molders	7		7												5	2
Molders, apprentices	2		2							1			1			

TABLE No. 13. CITY OF OAKLAND.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical:																
Bookkeepers	2		2													2
Stenographers	1		1										1			
Totals	35		35							2	1		5	7	13	7
Cotton Mills.	1	establishment.														
Manufacturing:																
Managers and foremen	13		13									3	1	2	4	3
Mechanics	14		14							2		1	3	1	5	2
Teamsters	2				2									1	1	
Watchmen	2					1	1						2			
General help	203		201			2			29	68	51	45	7	2	1	
General help (F.)	298		298						82	185	30	1				
Clerical:																
Bookkeepers	7		7											2		5
Stenographers	1		1										1			
Totals	540		534		2	3	1		111	255	81	50	14	8	11	10
Drugs and Chemicals.	3	establishments.														
Manufacturing:																
Chemists	2		2												1	1
Engineers	3				1		2								3	
Labelers (F.)	7		7							7						
Managers and foremen	7		3	1	3									2		5
General help	18		3	11	4							4	9	3	1	1
Clerical:																
Bookkeepers	3		2		1								1	1		1
Shipping clerks	1		1										1			
Stenographers (F.)	1		1										1			
Totals	42		19	12	9		2			7		4	12	6	5	8

Dyeing and Cleaning.	4	est	ablis	hmen	ts.											
Manufacturing:																
Cleaners	9	------	------	9	------	------	------	------	------	------	1	2	3	2	1	------
Cleaners (F.)	5	------	5	------	------	------	------	------	------	2	------	1	1	------	------	1
Drivers	12	------	------	12	------	------	------	------	------	------	------	------	4	6	1	1
Dyers	2	------	------	2	------	------	------	------	------	------	1	------	------	------	------	1
Engineers	1	------	------	1	------	------	------	------	------	------	------	------	------	------	1	------
Ironers	2	------	------	2	------	------	------	------	------	------	------	------	------	2	------	------
Ironers (F.)	13	------	13	------	------	------	------	------	------	6	5	1	1	------	------	------
Machinists	1	------	------	1	------	------	------	------	------	------	------	------	------	------	------	1
Markers and distributors (F.)	3	------	3	------	------	------	------	------	2	1	------	------	------	------	------	------
Pressers	5	------	------	5	------	------	------	------	------	------	------	------	3	2	------	------
Pressers (F.)	18	------	18	------	------	------	------	------	------	5	5	5	3	------	------	------
Washroom hands	2	------	------	2	------	------	------	------	------	------	------	------	1	1	------	------
Watchmen	1	------	------	------	------	------	1	------	------	------	------	------	1	------	------	------
Clerical:																
Bookkeepers	1	------	1	------	------	------	------	------	------	------	------	------	------	------	------	1
Office clerks	1	------	------	1	------	------	------	------	------	------	------	1	------	------	------	------
Office clerks (F.)	7	------	7	------	------	------	------	------	------	2	5	------	------	------	------	------
Stenographers (F.)	1	------	1	------	------	------	------	------	------	------	1	------	------	------	------	------
Totals	84	------	48	35	------	------	1	------	2	16	18	10	17	13	3	5
Electrical Goods and Supplies.	3	est	ablis	hmen	ts.											
Manufacturing:																
Electricians	3	------	3	------	------	------	------	------	------	------	------	------	------	------	------	3
Electricians, helpers	1	------	1	------	------	------	------	------	------	------	------	------	1	------	------	------
Firemen	2	------	------	1	1	------	------	------	------	------	------	------	2	------	------	------
Machine operators	25	------	------	------	25	------	------	------	------	------	------	25	------	------	------	------
Machine operators (F.)	42	------	42	------	------	------	------	------	------	40	2	------	------	------	------	------
Machinists	5	------	------	1	4	------	------	------	------	------	------	------	------	4	------	1
Managers and foremen	3	------	1	1	1	------	------	------	------	------	------	------	------	------	------	3
Mechanics	2	------	------	2	------	------	------	------	------	------	------	------	------	2	------	------
Teamsters	3	------	------	------	3	------	------	------	------	------	------	------	2	------	1	------
General help	22	------	------	20	1	------	1	------	------	2	------	16	3	------	1	------
Clerical:																
Bookkeepers	1	------	------	1	------	------	------	------	------	------	------	------	------	------	------	1
Office clerks	3	------	------	3	------	------	------	------	------	------	1	------	1	------	1	------
Salesmen	1	------	1	------	------	------	------	------	------	------	------	------	------	------	------	1
Stenographers (F.)	2	------	2	------	------	------	------	------	------	------	1	------	------	1	------	------
Totals	115	------	50	29	35	------	1	------	------	42	4	41	9	7	3	9

TABLE No. 13. CITY OF OAKLAND.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Fixtures, Gas and Electric.	3	establishments.														
Manufacturing:																
Electricians	4		4													4
Electricians, helpers	1		1												1	
Fixture makers	6		3	3												6
Fixture makers, helpers	2		2										2			
Machinists	3		3									3				
Managers and foremen	9		8	1										1	3	5
Managers and forewomen	1		1									1				
Mechanics	2		2													2
Operators	21		21							18	3					
Operators (F.)	160		160						28	102	30					
Porters and packers	3		1			1	1				1	1	1			
Clerical:																
Bookkeepers (F.)	3		3								1	1				1
Errand boys	1		1					1								
Office clerks (F.)	6		6								4		1	1		
Salesmen	2		2									1				1
Shipping clerks	1		1								1					
Stenographers (F.)	2		2								1		1			
Stock clerks	2		2								1	1				
Totals	229		223	4		1	1	1	28	120	42	8	5	2	4	19
Flouring Mill Products.	3	establishments.														
Manufacturing:																
Engineers	4			3	1									1		3
Managers and foremen	1				1											1
Millers	3			1	2									1	2	
Teamsters	21			13	8								1	14	5	1
General help	32	2		13	17					2		1	29			
Clerical:																
Bookkeepers	2		2													2

Bookkeepers (F.)	1		1									1				
Office clerks	3		2		1									2	1	
Salesmen	9		7		2										2	7
Stenographers (F.)	1		1									1				
Totals	77	2	13	30	32					2		3	30	18	10	14
Foundries.	7	establishments.														
Manufacturing:																
Blacksmiths	7		7												4	3
Blacksmiths, helpers	8		8										7	1		
Boiler makers	2		2												2	
Boiler makers, apprentices	1		1								1					
Boiler makers, helpers	5		5									2	3			
Brass finishers and molders	2			2										1	1	
Casting chippers	18		10	8							1	5	11	1		
Core makers	12		12												10	2
Cupolamen	7		4	3									4		3	
Draughtsmen	7		7											2	1	4
Draughtsmen, apprentices	2		2						1	1						
Engineers	6		1		5							1			5	
Flask makers	4		3	1									2	2		
Foundry helpers	43		33	10								38	4	1		
Furnacemen	21			21										1	7	13
Machine hands	10		10						2	2	2		3	1		
Machinists	40		40												40	
Machinists, apprentices	9		9						2	6	1					
Machinists, helpers	11		11							1		8	2			
Managers and foremen	14		7	2	5											14
Mechanics	3		2		1								1	1	1	
Molders	47		47												43	4
Molders, apprentices	20		20							1	6	5	8			
Molders, helpers	9		9									2	6	1		
Pattern makers	9		9										1		1	7
Pattern makers, apprentices	5		5							3	1			1		
Structural iron workers	27		13	14											10	17
Structural iron workers, apprentices	12		12									7	2	3		
Structural iron workers, helpers	87		55	32									49	38		
Teamsters	2				2								2			
Watchmen	4			1	1		2						4			
General help	182			27	155						100	48	31	2		1
Clerical:																
Bookkeepers	5		3	2										1	2	2
Office clerks	11		11								2	2		2	1	4

TABLE No. 13. CITY OF OAKLAND.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical—Continued.																
Salesmen	7		7													7
Stenographers (F.)	4		4									2	1	1		
Totals	646		352	123	169		2		5	14	114	120	134	59	125	75
Furniture.	3	establishments.														
Manufacturing:																
Furniture workers	15			7	8							2	7	2	4	
Furniture workers, apprentices	4				4					2		2				
Managers and foremen	2			1	1										1	1
Rattan workers	25				25						3	6	15	1		
Seamstresses	1		1								1					
Teamsters	2			1	1							1	1			
Upholsterers	2			2									2			
Wrappers (F.)	1		1							1						
Clerical:																
Bookkeepers (F.)	1		1										1			
Salesmen	1				1											1
Shipping clerks	2			1	1									2		
Stenographers (F.)	1		1										1			
Totals	57		4	12	41					3	4	11	27	5	5	2
Garages and Repair Shops.	5	establishments.														
Manufacturing:																
Garage help	3				3								2		1	
Machinists	20		4	16					1				1	6	11	1
Managers and foremen	3		1	2												3

Clerical:																
Bookkeepers	2		1	1												2
Bookkeepers (F.)	1		1									1				
Errand boys	1		1						1							
Totals	30		8	19	3				2			1	3	6	12	6
Glass and Glassware.	2	est	ablis	hmen	ts.											
Manufacturing:																
Glaziers	12		12												10	2
Managers and foremen	1		1													1
Teamsters	1		1										1			
Warehousemen	2		2										2			
Clerical:																
Bookkeepers	2		2										1			1
Salesmen	2		2												2	
Stenographers (F.)	1		1											1		
Totals	21		21										4	1	12	4
Gloves.	4	est	ablis	hmen	ts.											
Manufacturing:																
Cutters	10		1	9										6	3	1
Glove makers	14		10	4					2	1	3	1	1	4		2
Glove makers (F.)	4		4										1	3		
Glove makers, apprentices	2			2						2						
Managers and forewomen	1		1									1				
Operators (F.)	22		22						1	7	10	4				
Clerical:																
Bookkeepers	2		1	1							1				1	
Office clerks	2			2						1				1		
Salesmen	1			1										1		
Saleswomen	5		5							3	1	1				
Totals	63		44	19					3	14	15	7	2	15	4	3
Harness and Saddlery.	1	est	ablis	hmen	t.											
Manufacturing:																
Leather workers	4			4										1	3	
Total	4			4										1	3	

TABLE No. 13. CITY OF OAKLAND.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Ice.	1	establishment.														
Manufacturing:																
Engineers	4			4									1	1	1	1
Total	4			4									1	1	1	1
Jewelry, Watches, Silversmiths.	2	establishments.														
Manufacturing:																
Jewelers	13		13											2	7	4
Jewelers, apprentices	4		4						1	3						
Managers and foremen	1		1													1
Clerical:																
Office clerks (F.)	1		1							1						
Totals	19		19						1	4				2	7	5
Laundries, Hand.	3	establishments.														
Manufacturing:																
Drivers	2			1	1						1		1			
Ironers, hand	4		2		2						4					
Ironers, hand (F.)	9		9							2		7				
Markers and distributors (F.)	2		2							2						
Washroom hands	3			2	1					1	1	1				
Totals	20		13	3	4					5	6	8	1			
Laundries, Steam.	9	establishments.														
Manufacturing:																
Drivers	88			35	53					3	1	7	9	8	9	51
Engineers	10			7	3								2	4	2	2
Firemen	2				2								1			1
Ironers, hand	12			12								5	1	6		
Ironers, hand (F.)	75		75							5	21	43	4	2		
Ironers, machine	7			7							2	1	4			

Ironers, machine (F.)	35		35							15	18	1	1			
Managers and foremen	16		2	14												16
Managers and forewomen	1		1									1				
Manglers	16			16						13	2			1		
Manglers (F.)	132		132							120	7	4			1	
Markers and distributors	56			56						1		4	1	42	6	2
Markers and distributors (F.)	29		29							5	9	4	6	5		
Seamstresses	4		4							2	2					
Shakers (F.)	15		15							15						
Shirt finishers	10			10								5	4	1		
Shirt finishers (F.)	26		26							15	4	6	1			
Shirt folders (F.)	8		8							4	4					
Stablemen	10			5	2		3					1	6	2	1	
Starchers	12			12							1	2	6	3		
Starchers (F.)	31		31							13	14	2	2			
Washroom hands	42			42						1		5	12	19	2	3
Watchmen	9				1		8				1	3	5			
General help	7			7						1	1	2	3			
Clerical:																
Bookkeepers (F.)	17		17							1	3	6	5	1	1	
Collectors	4		3	1								1	1			2
Office clerks (F.)	10		10							2	6	1	1			
Stenographers (F.)	2		2							1		1				
Totals	686		390	224	61		11			217	96	105	75	94	22	77
Leather and Leather Goods.	1	establishment.														
Manufacturing:																
Engineers	1			1									1			
Tanners	15			15								1	5	9		
Watchmen	1						1						1			
Totals	17			16			1					1	7	9		
Liquors, Malt.	6	establishments.														
Manufacturing:																
Bottlers	23		23										2	11	10	
Bottlers, apprentices	1		1								1					
Brewers	20		20												20	
Brewmasters	3		3													3
Drivers, bottle	16		10		6										2	14
Drivers, keg	17		14		3										5	12
Engineers	4		4													4
Maltsters	2		2												2	

TABLE No. 13. CITY OF OAKLAND.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over
Manufacturing—Continued.																
Managers and foremen	6		6													6
Stablemen	7		4		3										7	
Watchmen	2						2						1		1	
Clerical:																
Bookkeepers	7		7													7
Bookkeepers (F.)	1		1										1			
Office clerks	1		1													1
Salesmen	3		3													3
Shipping clerks	1		1											1		
Stenographers (F.)	1		1									1				
Totals	115		101		12		2				1	1	4	12	47	50
Lithographing.	1	establishment.														
Manufacturing:																
Bindery girls	2		2								2					
Bookbinders	2		2												1	1
Bookbinders, apprentices	1		1							1						
Compositors	1		1													1
Engravers	2		2												1	1
Lithographers	1		1												1	
Lithographers, apprentices	1		1							1						
Managers and foremen	1		1													1
Pressmen	2		2													2
Pressmen, apprentices	1		1						1							
Clerical:																
Bookkeepers	1		1													1
Errand boys	1		1							1						
Salesmen	1		1													1
Stenographers (F.)	1		1								1					
Totals	18		18						1	3	3				3	8

Lumber and Milling.	19	establishments.													
Manufacturing:															
Bench hands	101	------	95	6	------	------	------	------	------	------	1	------	3	5	19	73
Bench hands, apprentices	11	------	11	------	------	------	------	------	------	1	5	------	2	1	2	------
Cabinet makers	7	------	7	------	------	------	------	------	------	------	------	------	------	1	2	4
Draughtsmen	5	------	5	------	------	------	------	------	------	------	------	------	------	1	1	3
Engineers	6	------	3	3	------	------	------	------	------	------	------	------	------	------	3	3
Firemen	6	------	4	2	------	------	------	------	------	------	------	1	------	2	3	------
Glaziers	10	------	10	------	------	------	------	------	------	------	------	------	2	------	------	8
Lumber hands	268	------	7	261	------	------	------	------	------	------	13	22	67	133	33	------
Managers and foremen	33	------	19	14	------	------	------	------	------	------	------	------	------	------	3	30
Mechanics	2	------	2	------	------	------	------	------	------	------	------	------	------	------	1	1
Mill hands	261	------	59	202	------	------	------	------	1	18	128	21	18	69	6	------
Millwrights	3	------	2	1	------	------	------	------	------	------	------	------	------	------	------	3
Planers	17	------	15	2	------	------	------	------	------	------	------	------	2	1	9	5
Sanders	14	------	12	2	------	------	------	------	------	------	------	------	1	10	2	1
Sash and door makers	197	------	197	------	------	------	------	------	------	------	------	------	------	------	118	79
Saw filers	5	------	5	------	------	------	------	------	------	------	------	------	------	------	1	4
Sawyers	31	------	28	3	------	------	------	------	------	------	------	1	------	4	19	7
Stablemen	6	------	------	6	------	------	------	------	------	------	------	------	2	2	1	1
Stair builders	4	------	4	------	------	------	------	------	------	------	------	------	------	------	------	4
Stickers	50	------	40	10	------	------	------	------	------	------	------	------	------	3	15	32
Tallymen	32	------	1	31	------	------	------	------	------	------	------	------	------	2	30	------
Teamsters	78	------	11	67	------	------	------	------	------	------	------	2	5	63	4	4
Watchmen	12	------	4	1	------	------	7	------	------	------	------	2	4	4	2	------
Wood turners	4	------	3	1	------	------	------	------	------	------	------	------	------	------	2	2
General help	40	------	26	14	------	------	------	------	------	------	------	2	36	2	------	------
Clerical:																
Bookkeepers	15	------	14	1	------	------	------	------	------	------	------	------	------	------	4	11
Bookkeepers (F.)	7	1	6	------	------	------	------	------	------	------	3	1	------	1	1	1
Office clerks	27	------	18	9	------	------	------	------	------	1	3	------	10	5	3	5
Office clerks (F.)	4	------	4	------	------	------	------	------	------	------	2	------	1	1	------	------
Salesmen	14	------	12	2	------	------	------	------	------	------	------	------	------	------	2	12
Shipping clerks	23	------	21	2	------	------	------	------	------	------	------	------	10	9	1	3
Stenographers (F.)	8	------	8	------	------	------	------	------	------	------	1	1	5	------	1	------
Totals	1301	1	653	640	------	------	7	------	1	20	156	53	168	319	288	296
Machinery and Machine Shop Products.	8	establishments.														
Manufacturing:																
Assemblers	10	------	10	------	------	------	------	------	------	------	------	------	------	------	8	2
Blacksmiths	2	------	2	------	------	------	------	------	------	------	------	------	------	1	------	1
Carpenters	3	------	3	------	------	------	------	------	------	------	------	------	------	------	1	2
Carpenters, apprentices	8	------	8	------	------	------	------	------	2	3	3	------	------	------	------	------

TABLE No. 13. CITY OF OAKLAND.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Machinists	49		49											1	47	1
Machinists, apprentices	6		6						2	2				2		
Managers and foremen	2		2													2
Pattern makers	8		8											1		7
Plumbers	2		2										2			
Sheet metal workers	7		7										2		4	1
Sheet metal workers, apprentices	1		1											1		
Tool makers	1		1													1
Watchmen	1						1						1			
General help	17		17									5	9	2	1	
Clerical:																
Bookkeepers	2		2													2
Shipping clerks	1		1											1		
Totals	120		119				1		4	5	3	5	14	9	61	19
Mattresses, Pillows and Bedding.	4	establishments.														
Manufacturing:																
Machine hands	4		4								2	2				
Managers and foremen	4		2	2												4
Mattress makers	13		13										1	2	10	
Seamstresses	7		7							5		2				
Teamsters	4		3	1							1	1	2			
Upholsterers	4		4									1			3	
Watchmen	1						1				1					
General help	7		7							1	3		1	1	1	
Clerical:																
Bookkeepers (F.)	3		3								1	1		1		
Salesmen	2		2												1	1
Shipping clerks	2		2									1	1			

Stenographers (F.)	1		1							1						
Totals	52		48	3			1			7	8	8	5	4	15	5
Moldings and Frames, Picture.	2	establishments.														
Manufacturing:																
Frame makers	11		11							1		1		1	7	1
Teamsters	1		1									1				
Clerical:																
Bookkeepers (F.)	2		2									1				1
Saleswomen	6		6							1	2	2	1			
Stenographers (F.)	1		1									1				
Totals	21		21							2	2	6	1	1	7	2
Oils and Grease.	1	establishment.														
Manufacturing:																
Engineers	1			1										1		
Managers and foremen	2			2												2
Stillmen	2						2									2
Teamsters	2			2									2			
General help	11			11									8	3		
Clerical:																
Shipping clerks	1			1										1		
Totals	19			17			2						10	5		4
Paints, Varnishes, etc.	4	establishments.														
Manufacturing:																
Chemists	1			1												1
Coopers, box makers, etc.	5			5								1	1	1	2	
Engineers	4			1	3										1	3
Felt and roofing workers	84			40	44						3	43	24	6	6	2
Firemen	4				4										3	1
Managers and foremen	7		2	5											1	6
Mechanics	2			2											2	
Paint mixers and makers	16			16							1	11	1	1	2	
Stillmen	3						3							1		2
Teamsters	2			2								1			1	
General help	53			53							5	23	12	8	5	
General help (F.)	2		2							1			1			

TABLE No. 13. CITY OF OAKLAND.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical:																
Bookkeepers	3	1	1	1												3
Bookkeepers (F.)	1	1									1					
Office clerks	1		1										1			
Office clerks (F.)	2		2								2					
Salesmen	6			6									3	1		2
Shipping clerks	2			2										1	1	
Stenographers (F.)	3	1	2							1		1	1			
Totals	201	3	10	134	51		3			2	12	80	44	19	24	20
Pastes, Macaroni, etc.	1	establishment.														
Manufacturing:																
Paste makers	5			5								1	4			
Porters and packers	2			2								2				
Teamsters	1			1								1				
Totals	8			8								4	4			
Patterns and Models.	1	establishment.														
Manufacturing:																
Pattern makers	6		6													6
Totals	6		6													6
Photographs and Photo-engravers.	1	establishment.														
Manufacturing:																
Managers and foremen	1		1													1
Photograph workers	7		7							1						6
Totals	8		8							1						7
Pickles, Preserves, Sauces, etc.	3	establishments.														
Manufacturing:																
Cooks (F.)	8		8							4	3	1				

Cutters (F.)	2		2							2						
Managers and forewomen	1		1										1			
Packers and labelers (F.)	16		16							15	1					
Teamsters	5			1	4								3	1	1	
General help	6			4	2							2	4			
General help (F.)	5		5							5						
Clerical:																
Bookkeepers	1			1									1			
Salesmen	3			1	2										1	2
Totals	47		32	7	8					26	4	3	9	1	2	2
Plating.	2	establishments.														
Manufacturing:																
Brass finishers	1		1												1	
Brass polishers	4		4										1		3	
Coppersmiths	1		1													1
Coppersmiths, helpers	1		1									1				
Housesmiths	3		3													3
Housesmiths, apprentices	2		2										2			
Machinists	2		2													2
Managers and foremen	4		4													4
Platers	1		1										1			
Sheet metal workers	1		1													1
Clerical:																
Bookkeepers (F.)	1		1										1			
Errand boys	1		1						1							
Totals	22		22						1			1	5		4	11
Printing, Binding, Newspapers, etc.	14	establishments.														
Manufacturing:																
Bindery girls	34		34						2	14	13	2	3			
Bookbinders	13		8	5							2		1	1	4	5
Bookbinders, apprentices	2		2									2				
Compositors	37	18	13	6										3	2	32
Compositors (F.)	3		3									1	2			
Compositors, apprentices	9	4	5							2	1	5	1			
Engravers	4		4													4
Linotype operators	20	20														20
Linotype operators (F.)	1	1														1
Linotype operators, apprentices	2	2										1	1			
Lithographers	2			2												2

TABLE No. 13. CITY OF OAKLAND.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Lithographers, apprentices	2			2								2				
Managers and foremen	27		18	9												27
Managers and forewomen	1		1										1			
Paper cutters	9		3	6									3	3	2	1
Porters and packers	14		1	12			1			1	2	5	2	4		
Press feeders	9		9									3	6			
Press feeders (F.)	2		2									1	1			
Pressmen	39		14	25									2	13	7	17
Pressmen, apprentices	14		14							1	4	3	1	5		
Proofreaders	3	3														3
Proofreaders (F.)	3		3									2	1			
Reporters and editors	22		22					2	3		2	2	1	1		11
Reporters (F.)	3	3										1		1		1
Stereotypers	11	5		6						1	1	1		2	2	4
General help	11	2	1	8					1	3			2	2		3
General help (F.)	53	2	51							42	11					
Clerical:																
Bookkeepers	8		2	6									1	1		6
Bookkeepers (F.)	8		8								2	4	1		1	
Collectors	11		11									1		3	7	
Errand boys	19		19						7	11	1					
Office clerks	9			9						2	2	1	1	1		2
Office clerks (F.)	16	4	12						1	4	3	5	1	1		1
Shipping clerks	2			2								1		1		
Solicitors	41		26	15								1	16	3		21
Stenographers (F.)	16		16							3	6	1	3	3		
Totals	480	64	302	113			1	2	14	84	50	45	51	48	25	161
Restaurants.	4	establishments.														
Manufacturing:																
Bartenders	8			5	3										4	4
Cooks	10				10										4	6

Cooks (F.)	6	2	4								3	1	1	1		
Cooks, helpers	1				1							1				
Cooks, helpers (F.)	5	3	2						2	2	1					
Kitchen help	11	1			10					1	2	1	3	4		
Kitchen help (F.)	11	11							3	8						
Managers and forewomen	1	1											1			
Porters and packers	4				4						4					
Waiters	37				37						34					3
Waitresses	21	12	9						7	13	1					
General help	3			1	2					3						
General help (F.)	3	1	2						1	1			1			
Clerical:																
Bookkeepers	2			1	1								1			1
Bookkeepers (F.)	1	1											1			
Cashiers	3				3									1		2
Cashiers (F.)	3	1	2							1	1		1			
Stock clerks	2			2									1			1
Totals	132	33	19	9	71				13	29	46	3	10	6	8	17
Rubber Goods.	1	establishment.														
Manufacturing:																
Engineers	1			1								1				
Machinists	1			1											1	
Managers and foremen	4			4												4
Rubber workers	24			24						3	2	4	8	3	4	
Teamsters	1			1										1		
Watchmen	1			1								1				
Clerical:																
Bookkeepers (F.)	2		2										2			
Salesmen	2			2												2
Totals	36		2	34						3	2	6	10	4	5	6
Safes and Vaults.	1	establishment.														
Manufacturing:																
Cabinet makers	1			1									1			
Machine hands	3			3							2		1			
Machinists	1			1										1		
Machinists, helpers	1			1							1					
Painters	2			2								1		1		

TABLE No. 13. CITY OF OAKLAND.

Manufacturing Establisments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Platers and polishers	1			1											1	
Safe makers	3			3									2		1	
Totals	12			12							3	1	4	2	2	
Shipwrights, Caulking, etc.	2	establishments.														
Manufacturing:																
Boat builders	8		8										1	1	4	2
Boat builders, apprentices	3		3							1	2					
Ship carpenters	10		10												10	
Ship carpenters, helpers	2		2										2			
Totals	23		23							1	2		3	1	14	2
Slaughtering and Meat Packing.	6	establishments.														
Manufacturing:																
Coolermen	10			6	4								7	3		
Engineers	3			2	1								1			2
Killers and dressers	30			18	12								5	15	8	2
Killers and dressers, apprentices	2			2									2			
Managers and foremen	7			3	4											7
Meat cutters	24				24								12	10	2	
Mechanics	7				7								6	1		
Porters and packers	6				6						2		2	1		1
Sausage makers	8				8								2	4	2	
Stablemen	3			1	2								3			
Teamsters	24			10	14								7	10	7	
Vaqueros	4			2	2								1	2	1	
General help	26			6	20								17	9		
Clerical:																
Bookkeepers	8		4	2	2								3	3	1	1
Bookkeepers (F.)	3	1	2									1		2		
Buyers	3			1	2										1	2

Errand boys	1			1						1						
Office clerks	2		1	1									1		1	
Salesmen	8			4	4									4	2	2
Stenographers	1		1										1			
Totals	180	1	8	59	112					1	2	1	70	64	25	17
Soda and Mineral Water.	2	establishments														
Manufacturing:																
Bottlers	5			5								1	1	3		
Bottle washers	3			3								3				
Drivers	13			13								1	1	3	8	
Managers and foremen	1			1												1
Clerical:																
Bookkeepers	1			1												1
Totals	23			23								5	2	6	8	2
Terra Cotta and Stucco Work.	3	establishments.														
Manufacturing:																
Engineers	2			2											2	
Kiln burners	5		3	2									1	2	2	
Managers and foremen	2			2												2
Modelers, plaster	5		5												3	2
Pottery workers	15			15										7	8	
Teamsters	1			1									1			
Watchmen	1						1					1				
General help	44			44								28	16			
Clerical:																
Bookkeepers	2			2									1		1	
Totals	77		8	68			1					29	19	9	16	4
Tinware, Sheet Metal, etc.	3	establishments.														
Manufacturing:																
Sheet metal workers	21		21									1		1	1	18
Sheet metal workers, apprentices	7		7									2	2	2	1	
General help	4		4										4			

TABLE No. 13. CITY OF OAKLAND.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical:																
Bookkeepers	2		2									1				1
Totals	34		34									1	6	3	2	19
Wire and Wire Products.	1	establishment.														
Manufacturing:																
Machinists	2				2								2			
Wire workers	34				34					8	8	8	4	6		
Clerical:																
Shipping clerks	1				1								1			
Totals	37				37					8	8	8	7	6		
Miscellaneous.	5	establishments.														
Manufacturing:																
Broom makers	11		11						1	2		3	3	2		
Chemists	1			1												1
Engineers	2		1	1										1	1	
Managers and foremen	4		3	1									1			3
Managers and forewomen	1		1										1			
Seamstresses	23		23						6	12	3	2				
Wool sorters	14			14									14			
General help	11		6	4	1						1	2		3	2	3
Clerical:																
Bookkeepers	2			2							1					1
Shipping clerks	1		1											1		
Stenographers (F.)	2	1	1									1	1			
Totals	72	1	47	23	1				7	14	5	8	20	7	3	8

TABLE No. 14. CITY OF OAKLAND.

Wholesale Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Building Materials.	2	establishments.														
Bookkeepers	2	1	1											1		1
Office clerks	3		3								1					2
Salesmen	1		1													1
Stablemen	2			2									2			
Stenographers (F.)	1		1								1					
Teamsters	18			18										14	4	
Warehousemen	3			3									3			
Totals	30	1	6	23							2		5	15	4	4
Clothing.	1	establishment.														
Bookkeepers (F.)	1		1										1			
Errand boys	1		1						1							
Managers and foremen	1		1												1	
Packers (F.)	18		18							1	5	7	5			
Stenographers (F.)	1		1							1						
Totals	22		22						1	2	5	7	6		1	
Furniture.	1	establishment.														
Bookkeepers (F.)	1	1									1					
Shipping clerks	1			1										1		
Stenographers (F.)	1	1								1						
Warehousemen	2			2						1			1			
Totals	5	2		3						2	1		1	1		
Groceries.	1	establishment.														
Bookkeepers	1		1													1
Cashiers	1		1													1
Managers and foremen	1		1													1
Office clerks	2		2									1				1
Porters and packers	11			11									11			
Salesmen	4		4													4

TABLE No. 14. CITY OF OAKLAND.

Wholesale Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Groceries—Continued.																
Shipping clerks	1			1										1		
Stenographers (F.)	2		2									2				
Totals	23		11	12								3	11	1		8
Hardware.	2	establishments.														
Bookkeepers	1		1											1		
Bookkeepers (F.)	1	1												1		
Collectors	1		1										1			
Managers and foremen	1		1													1
Office clerks (F.)	4	4									1		2	1		
Salesmen	13		13										1			12
Shipping clerks	1			1									1			
Stenographers (F.)	2	1	1									1	1			
Teamsters	2			2						1			1			
Warehousemen	12			12						1	2	3	2	2	1	1
Totals	38	6	17	15						2	3	4	9	5	1	14
Manufacturers' Agents.	6	establishments.														
Bookkeepers	4		3	1							1			1		2
Bookkeepers (F.)	6		6								2		4			
Cashiers	1			1								1				
Cashiers (F.)	1		1								1					
Collectors	2			2										2		
Machinists	2		2									1	1			
Managers and foremen	6		5	1												6
Office clerks (F.)	1		1								1					
Salesmen	50		47	3										4	1	45
Saleswomen	1		1										1			
Shipping clerks	3		3										2	1		
Stenographers (F.)	2		2								1		1			
Teamsters	4			4							1	2		1		

Warehousemen	2		2											2		
Totals	85		73	12							7	4	9	11	1	53
Plumbing Supplies.	2	establishments.														
Bookkeepers	1		1													1
Cashiers (F.)	1		1									1				
Errand boys	1		1						1							
Managers and foremen	3		2	1												3
Office clerks	5		5							2		3				
Porters and packers	6		6										6			
Salesmen	3		3											2		1
Shipping clerks	2		2									1			1	
Stenographers (F.)	1		1										1			
Stock clerks	3		3									1	1	1		
Stock clerks (F.)	2		2									1		1		
Teamsters	9		6	3									9			
General help	6		1	5									5	1		
Totals	43		34	9					1	2		7	22	5	1	5
Miscellaneous.	3	establishments.														
Bookkeepers	3		2	1											1	2
Glaziers	2			2										2		
Managers and foremen	5		1	3	1											5
Office clerks	6		6								1	1	1	1		2
Porters and packers	6		1	5								1	5			
Salesmen	7		5	2											1	6
Stenographers (F.)	2		2									1	1			
Teamsters	12		1	9	2								3	2	7	
Warehousemen	3			2	1									3		
Totals	46		18	24	4						1	3	10	8	9	15

TABLE No. 15. CITY OF OAKLAND.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Automobile Accessories.	4	establishments.														
Bookkeepers	2			2												2
Bookkeepers (F.)	4		4									1		2		1
Floormen	4			4										1	2	1
Machinists	8		8											3	5	
Machinists, helpers	1		1							1						
Managers and foremen	2			2												2
Mechanics	9		4	5						1		1	1		5	1
Office clerks	1		1													1
Office clerks (F.)	2		2									2				
Porters and packers	1			1								1				
Salesmen	7		5	2												7
Saleswomen	2		2											1	1	
Shipping clerks	2		1	1								1		1		
Stenographers (F.)	2		2									1	1			
Stock clerks	3		2	1							1			2		
Totals	50		32	18						2	1	7	2	10	13	15
Boots and Shoes.	2	establishments.														
Bookkeepers (F.)	1		1											1		
Cashiers (F.)	1		1									1				
Errand boys	2			2					1	1						
Managers and foremen	1			1												1
Office clerks (F.)	2		2							1	1					
Porters and packers	1			1								1				
Salesmen	18			18										5	5	8
Shipping clerks	1			1									1			
Stenographers (F.)	1		1								1					
Stock clerks	1			1										1		
Totals	29		5	24					1	2	2	2	1	7	5	9

Butcher Shops.	3	est	ablis	hmen	ts.											
Bookkeepers (F.)	3		3								1		1			1
Cashiers (F.)	1		1									1				
Managers and foremen	1				1											1
Meat cutters	23				23								1	9	13	
Office clerks (F.)	4		4							2	2					
Sausage makers	4				4									2	2	
Teamsters	3				3							1	2			
Wrappers	5				5							3	2			
Totals	44		8		36					2	3	5	6	11	15	2
Clothing.	12	est	ablis	hmen	ts.											
Alteration hands (F.)	71		71						5	12	25	19	2	5	2	1
Bookkeepers	3		1	2												3
Bookkeepers (F.)	9		9								3	1	3	1		1
Bushelmen	16			16											13	3
Cashiers	4		1	3					2	1						1
Cashiers (F.)	15		15							10	2	1	2			
Collectors	9		1	8							1	2		4	1	1
Errand boys	27	16	4	7					17	10						
Managers and foremen	11		4	7												11
Office clerks (F.)	7		7							4	1	1	1			
Porters and packers	8		1	4	3				1		1	1	4	1		
Salesmen	76		1	75						1	1	3	12	8	10	41
Saleswomen	38		38							4	7	3	8	7	6	3
Stenographers (F.)	3		3								1	1	1			
Stock clerks	1			1								1				
Stock clerks (F.)	3		3						1	2						
Tailors and pressers	6			6									2	2	1	1
Window dressers	1		1											1		
Wrappers	6			6					5			1				
Wrappers (F.)	2		2							2						
Totals	316	16	162	135	3				31	46	42	34	35	29	33	66
Confectionery.	4	est	ablis	hmen	ts.											
Bookkeepers	1			1												1
Bookkeepers (F.)	3		3									1	2			
Candy makers	9		3	6						1	2	1	1	1	1	2
Cashiers (F.)	4		4									2	2			
Chocolate dippers (F.)	7		7							1	6					
Errand boys	2			2						2						
Ice cream makers	5		1	4										2	1	2
Managers and foremen	2			2												2

TABLE No. 15. CITY OF OAKLAND.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Confectionery—Continued.																
Porters and packers	3			3								3				
Salesmen	2			2										2		
Saleswomen	64		64							37	19	5	3			
Shipping clerks	1			1										1		
Soda dispensers	5			3	2									3	2	
Stock clerks	1			1												1
Teamsters	7		1	6							1	1		5		
Totals	116		83	31	2					41	28	13	8	14	4	8
Department Stores.	3	est	ablis	hmen	ts.											
Bookkeepers	1		1													1
Bookkeepers (F.)	6		6								1		4			1
Cash girls	8		8						8							
Cashiers (F.)	15		15							15						
Errand boys	17		17						17							
Managers and foremen	28		25	3								1	1	1	1	24
Managers and forewomen	3		3								1					2
Office clerks	3		3							1	2					
Office clerks (F.)	12		12						1	4	4	3				
Porters and packers	7		7								3		1	3		
Salesmen	62		62							2	7	2	2	10	4	35
Saleswomen	153		153						24	57	37	16		10	6	3
Shipping clerks	6		6							3			2			1
Stenographers (F.)	5		5							1	3		1			
Stock clerks	6		4	2						4		2				
Stock clerks (F.)	4		4						1	3						
Window dressers	4		4							1	1		1			1
Wrappers (F.)	31		31						31							
General help	5		5									1	2			2
General help (F.)	40		40						9	6	17	2		2	2	2
Totals	416		411	5					91	97	76	27	14	26	13	72

Drug Stores.	15	establishments.														
Bookkeepers (F.)	6		6									1	2	1	1	1
Cashiers (F.)	11		11							2	5	3	1			
Drug clerks	77	1		14	62							2	2	17	30	26
Drug clerks, apprentices	3			2	1						3					
Errand boys	19	1	1	15	2				4	12	3					
Managers and foremen	6			1	5										2	4
Office clerks	3	1		2							1				1	1
Office clerks (F.)	6		6							2	2	1	1			
Porters and packers	9			7	2						2	2	5			
Saleswomen	17		17							2	5	7	2			1
Shipping clerks	2			2									1	1		
Soda dispensers	3			3								1	2			
Stenographers (F.)	2		2									1	1			
Stock clerks	15			14	1				1	3	2	1	2	1	1	4
Stock clerks (F.)	3		3							3						
Window dressers	5			5						1			1		1	2
Totals	187	3	46	65	73				5	25	23	19	20	20	36	39
Dry Goods.	4	establishments.														
Alteration hands (F.)	55		55						4	5	14	21		8	3	
Bookkeepers	4		4									1	1	1		1
Bookkeepers (F.)	3		3										1	1		1
Cash boys	6	6						6								
Cashiers	4		4						1			3				
Cashiers (F.)	78		78						33	42		1		1	1	
Engineers	1		1												1	
Errand boys	21		21						19	2						
Errand girls	16		16						16							
Managers and foremen	27		27											2	1	24
Managers and forewomen	1		1													1
Millinery workers (F.)	4		4						2					1	1	
Office clerks	6		6						1	2		2		1		
Office clerks (F.)	25		25							9	8	4	4			
Porters and packers	23		23						1	2	2	5	5	8		
Salesmen	121		120	1						4	5	7	36	34	15	20
Saleswomen	272		272						10	106	82	33	16	6	5	14
Shipping clerks	6		6							2	1		1	1	1	
Stenographers (F.)	5		5							1	2		2			
Stock clerks	6		6						4	1	1					
Tailors	2		2											2		
Teamsters	6		6							1			2		2	1
Waitresses	14		14						7	3	3		1			

TABLE No. 15. CITY OF OAKLAND.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Dry Goods Continued.																
General help	10		10							1	2	1	1	1	1	3
General help (F.)	7		7							3	3			1		
Totals	723	6	716	1				6	98	181	123	78	70	68	31	65
Furniture.	6	establishments.														
Bookkeepers	2		1	1												2
Bookkeepers (F.)	6	2	4									1	4			1
Cabinet makers	5		5												1	4
Cabinet makers, apprentices	1		1										1			
Carpet layers	13		13												5	8
Cashiers	3		1	2												3
Cashiers (F.)	4		4							1			2	1		
Collectors	12		2	10										5	4	3
Errand boys	2		1	1					1			1				
Finishers	5		5												4	1
Finishers, apprentices	1		1										1			
Managers and foremen	12		7	5												12
Mattress makers	5		5												4	1
Office clerks (F.)	10		10							2	3	3	1	1		
Plumbers	4		4											1	3	
Porters and packers	15		4	9	2								13	2		
Salesmen	48		15	33									1	2		45
Seamstresses	6		6								3		3			
Shipping clerks	3			2	1								1	1		1
Solicitors	2			2												2
Stenographers (F.)	6		6								1	1	4			
Stock clerks	10		1	9						2			4	3		1
Teamsters	23		10	11	2								9	14		
Upholsterers	4		4												2	2
Totals	202	2	110	85	5				1	5	7	6	44	30	23	86

Groceries.	5	establishments.														
Bookkeepers	3			3									1		2	
Bookkeepers (F.)	7		7							1	2	4				
Cashiers	1			1												1
Cashiers (F.)	1		1							1						
Collectors	2			2										1	1	
Drivers	19			3	16					1	3	7	8			
Errand boys	10			1	9				3	7						
Managers and foremen	2			1	1										1	1
Office clerks	1			1						1						
Office clerks (F.)	6		6								3	3				
Porters and packers	11				11						1	3	4	3		
Salesmen	68		42	2	24					2	6	2	4	50	3	1
Saleswomen	3		3								3					
Shipping clerks	8				8						1		3	2	2	
Solicitors	7				7								1	1	3	2
Stablemen	5		5										4			1
Stenographers (F.)	6		6								6					
Stock clerks	4				4					2		1	1			
Totals	164		70	14	80				3	15	25	20	26	57	12	6
Hardware.	1	establishment.														
Bookkeepers	1			1												1
Bookkeepers (F.)	1		1											1		
Cashiers (F.)	2		2									1		1		
Collectors	1			1										1		
Fixture hangers	10		10								2				8	
Managers and foremen	2			2												2
Office clerks	1			1						1						
Office clerks (F.)	2		2								2					
Plumbers	2			2							1			1		
Salesmen	18			18						1	7	1	4	2	3	
Saleswomen	1		1								1					
Shipping clerks	2			2									1	1		
Stenographers (F.)	1		1								1					
Teamsters	4			4									4			
Totals	48		17	31						2	14	2	9	7	11	3
Household Goods, Crockery, Glassware, etc.	3	establishments.														
Bookkeepers	1			1												1
Bookkeepers (F.)	2	1	1								2					
Cashiers (F.)	3		3							2	1					
Errand boys	2		1	1					1	1						

TABLE No. 15. CITY OF OAKLAND.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Household Goods, Crockery, etc.—Continued.																
Managers and foremen	3			3												3
Office clerks (F.)	3		3							1	1	1				
Porters and packers	8		2	6					1	1	1	3	2			
Salesmen	19		6	13						1		1	3	4	5	5
Saleswomen	39		39						2	15	16	5		1		
Shipping clerks	2			2										2		
Stenographers (F.)	1		1								1					
Stock clerks	7		4	3						2	3	1		1		
Teamsters	6		2	4									4	2		
Totals	96	1	62	33					4	23	25	11	9	10	5	9
Jewelry.	1	establishment.														
Bookkeepers (F.)	1		1										1			
Engravers	2			2												2
Errand boys	1			1						1						
Jewelers	1			1												1
Salesmen	5			5										1	2	2
Saleswomen	1		1										1			
Shipping clerks	1			1									1			
Stock clerks (F.)	1		1											1		
Watchmakers	3			3											2	1
Totals	16		3	13						1			3	2	4	6
Millinery.	3	establishments.														
Bookkeepers (F.)	1		1								1					
Errand boys	1		1						1							
Makers (F.)	10		10						3		5		1	1		
Managers and forewomen	1		1													1
Porters and packers	1			1							1					
Saleswomen	33		33							28		3	1	1		
Trimmers (F.)	4		4											1	1	2
Totals	51		50	1					4	28	7	3	2	3	1	3

Music and Musical Instruments.	3	establishments.														
Bookkeepers	1			1												1
Bookkeepers (F.)	4		4										2	2		
Cashiers (F.)	2		2								2					
Collectors	2		1	1									1		1	
Errand boys	2			2					2							
Managers and foremen	4		1	3												4
Porters and packers	4		1	3								1	2		1	
Repair men, tuners, etc.	14		6	8					1					3	4	6
Salesmen	22		4	18										1	7	14
Saleswomen	2		2								1		1			
Shipping clerks	1			1							1					
Stenographers (F.)	2		2									2				
Telephone girls	1		1								1					
Totals	61		24	37					3		5	3	6	6	13	25
Stationery.	1	establishment.														
Bookkeepers (F.)	1		1								1					
Errand boys	1			1					1							
Managers and foremen	1			1												1
Salesmen	3			3							3					
Totals	6		1	5					1		4					1
Miscellaneous.	1	establishment.														
Bookkeepers	1		1												1	
Porters and packers	2		2								1			1		
Stenographers (F.)	2		2								1		1			
Totals	5		5								2		1	1	1	

TABLE No. 16. CITY OF OAKLAND.

Miscellaneous Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Feed and Fuel.	3	establishments.														
Bookkeepers	1				1											1
Coal handlers	26			6	20								26			
Collectors	1				1											1
Engineers	1				1											1
Managers and foremen	4		1		3											4
Office clerks	2		2											1		1
Office clerks (F.)	1		1											1		
Salesmen	2		2													2
Teamsters	28				28									28		
Weighers	2		1		1											2
Totals	68		7	6	55								26	30		12
Lumber and Shipping.	1	establishment.														
Bookkeepers	1			1												1
Lumber hands	3			3										1	2	
Tallymen	1			1											1	
Teamsters	2			2										2		
Totals	7			7										3	3	1
Milk Depots.	3	establishments.														
Bookkeepers (F.)	3		3								1	2				
Can washers	2				2								2			
Managers and foremen	1				1											1
Office clerks	1				1						1					
Stablemen	3				3								3			
Teamsters	12		5	5	2								1		11	
Totals	22		8	5	9						2	2	6		11	1
Teaming, Livery and Storage.	7	establishments.														
Bookkeepers	2		1		1										2	
Bookkeepers (F.)	2		2								1				1	

Collectors	2	-----	-----	-----	2	-----	-----	-----	-----	-----	-----	-----	-----	1	1	-----
Delivery boys	3	-----	3	-----	-----	-----	-----	-----	3	-----	-----	-----	-----	-----	-----	-----
Delivery drivers	8	-----	-----	-----	8	-----	-----	-----	-----	-----	-----	-----	8	-----	-----	-----
Harness and wagon washers	3	-----	-----	-----	-----	-----	3	-----	-----	-----	-----	-----	2	1	-----	-----
Hostlers	12	-----	-----	-----	5	-----	7	-----	-----	-----	-----	2	7	3	-----	-----
Managers and foremen	5	-----	1	1	2	-----	1	-----	-----	-----	-----	-----	-----	-----	1	4
Office clerks	1	-----	1	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	-----	-----	-----
Office clerks (F.)	2	-----	2	-----	-----	-----	-----	-----	-----	-----	2	-----	-----	-----	-----	-----
Salesmen	1	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
Stenographers (F.)	1	1	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	-----	-----	-----
Teamsters	30	-----	-----	8	16	-----	6	-----	-----	-----	-----	-----	-----	9	21	-----
Warehousemen	1	-----	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	-----
Watchmen	1	-----	-----	-----	-----	-----	1	-----	-----	-----	-----	-----	1	-----	-----	-----
Totals	74	1	11	10	34	-----	18	-----	3	-----	5	2	18	15	26	5

TABLE No. 17. CITY OF OAKLAND.

Summary of All Establishments. Hours of Labor and Wages. (Tabulated by industry.)

INDUSTRY.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing.																
Awnings, tents, etc.	25	-----	11	14	-----	-----	-----	-----	-----	1	5	3	6	6	4	-----
Bakery products	222	20	39	95	65	-----	3	-----	2	26	25	53	16	24	43	33
Bar and store fixtures	4	-----	4	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	-----	-----	3
Boilers, engines and tanks	280	-----	209	69	-----	-----	2	-----	14	12	8	15	38	27	133	33
Boots and shoes	96	-----	36	60	-----	-----	-----	-----	-----	16	14	30	11	12	4	9
Boxes, paper	79	-----	55	24	-----	-----	-----	-----	27	26	7	5	7	3	2	2
Boxes, wood	38	-----	10	26	2	-----	-----	-----	-----	2	5	3	16	8	1	3
Brick, tile, pottery, etc.	5	-----	5	-----	-----	-----	-----	-----	-----	-----	-----	2	-----	-----	-----	3
Butter and dairy products	113	6	25	39	43	-----	-----	-----	-----	2	10	5	25	12	39	20
Carriages and wagons	16	-----	16	-----	-----	-----	-----	-----	-----	-----	2	-----	3	1	9	1
Cigars and cigarettes	3	-----	-----	3	-----	-----	-----	-----	-----	-----	2	-----	1	-----	-----	-----
Clothing	123	-----	116	7	-----	-----	-----	1	11	22	19	16	16	9	14	15
Coffee, spices, etc.	2	-----	1	1	-----	-----	-----	-----	-----	1	-----	-----	-----	-----	-----	1
Confectionery	45	-----	34	11	-----	-----	-----	-----	-----	13	9	13	5	2	-----	3

TABLE No. 17. CITY OF OAKLAND.

Summary of All Establishments. Hours of Labor and Wages. (Tabulated by industry.)—Continued.

INDUSTRY.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Copper and brass goods	35		35							2	1		5	7	13	7
Cotton mills	540		534		2	3	1		111	255	81	50	14	8	11	10
Drugs and chemicals	42		19	12	9		2			7		4	12	6	5	8
Dyeing and cleaning	84		48	35			1		2	16	18	10	17	13	3	5
Electrical goods and supplies	115		50	29	35		1			42	4	41	9	7	3	9
Fixtures, gas and electric	229		223	4		1	1	1	28	120	42	8	5	2	4	19
Flouring mill products	77	2	13	30	32					2		3	30	18	10	14
Foundries	646		352	123	169		2		5	14	114	120	134	59	125	75
Furniture	57		4	12	41					3	4	11	27	5	5	2
Garages and repair shops	30		8	19	3				2			1	3	6	12	6
Glass and glassware	21		21										4	1	12	4
Gloves	63		44	19					3	14	15	7	2	15	4	3
Harness and saddlery	4			4										1	3	
Ice	4			4									1	1	1	1
Jewelry, watches, silversmiths, etc.	19		19						1	4				2	7	5
Laundries, hand	20		13	3	4					5	6	8	1			
Laundries, steam	686		390	224	61		11			217	96	105	75	94	22	77
Leather, leather goods, etc.	17			16			1					1	7	9		
Liquors, malt	115		101		12		2				1	1	4	12	47	50
Lithographing	18		18						1	3	3				3	8
Lumber and milling	1301	1	653	640			7		1	20	156	53	168	319	288	296
Machinery and machine shop products	120		119				1		4	5	3	5	14	9	61	19
Mattresses, pillows and bedding	52		48	3			1			7	8	8	5	4	15	5
Moldings and frames, picture	21		21							2	2	6	1	1	7	2
Oils and grease	19			17			2						10	5		4
Paints, varnishes, etc.	201	3	10	134	51		3			2	12	80	44	19	24	20
Pastes, macaroni, etc.	8			8								4	4			
Patterns and models	6		6													6
Photographs and photo-engravers	8		8							1						7
Pickles, preserves, sauces, etc.	47		32	7	8					26	4	3	9	1	2	2
Plating	22		22						1			1	5		4	11
Printing, binding, newspapers, etc.	480	64	302	113			1	2	14	84	50	45	51	48	25	161
Restaurants	132	33	19	9	71				13	29	46	3	10	6	8	17

Rubber goods	36		2	34						3	2	6	10	4	5	6
Safes and vaults	12			12							3	1	4	2	2	
Shipwrights, caulking, etc.	23		23							1	2		3	1	14	2
Slaughtering and meat packing	180	1	8	59	112					1	2	1	70	64	25	17
Soda and mineral water	23			23								5	2	6	8	2
Terra cotta and stucco work	77		8	68			1					29	19	9	16	4
Tinware, sheet metal, etc.	34		34									4	6	3	2	19
Wire and wire products	37				37					8	8	8	7	6		
Miscellaneous	72	1	47	23	1				7	14	5	8	20	7	3	8
Totals	6784	131	3815	2033	758	4	43	4	247	1028	795	785	956	884	1048	1037
Wholesale.																
Building materials	30	1	6	23							2		5	15	4	4
Clothing	22		22						1	2	5	7	6		1	
Furniture	5	2		3						2	1		1	1		
Groceries	23		11	12								3	11	1		8
Hardware	38	6	17	15						2	3	4	9	5	1	14
Manufacturers' agents	85		73	12							7	4	9	11	1	53
Plumbing supplies	43		34	9					1	2		7	22	5	1	5
Miscellaneous	46		18	24	4						1	3	10	8	9	15
Totals	292	9	181	98	4				2	8	19	28	73	46	17	99
Retail.																
Automobile accessories	50		32	18						2	1	7	2	10	13	15
Boots and shoes	29		5	24					1	2	2	2	1	7	5	9
Butcher shops	44		8		36					2	3	5	6	11	15	2
Clothing	316	16	162	135	3				31	46	42	34	35	29	33	66
Confectionery	116		83	31	2					41	28	13	8	14	4	8
Department stores	416		411	5					91	97	76	27	14	26	13	72
Drug stores	187	3	46	65	73				5	25	23	19	20	20	36	39
Dry goods	723	6	716	1				6	98	184	123	78	70	68	31	65
Furniture	202	2	110	85	5				1	5	7	6	44	30	23	86
Groceries	164		70	14	80				3	15	25	20	26	57	12	6
Hardware	48		17	31						2	14	2	9	7	11	3
Household goods, crockery, glassware, etc.	96	1	62	33					4	23	25	11	9	10	5	9
Jewelry	16		3	13						1			3	2	4	6
Millinery	51		50	1					4	28	7	3	2	3	1	3
Music, musical instruments, etc.	61		24	37					3		5	3	6	6	13	25
Stationery	6		1	5					1		4					1
Miscellaneous	5		5								2		1	1	1	
Totals	2530	28	1805	498	199			6	242	473	387	230	256	301	220	415

TABLE No. 17. CITY OF OAKLAND.

Summary of All Establishments. Hours of Labor and Wages. (Tabulated by industry.)—Continued.

INDUSTRY.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Miscellaneous.																
Feed and fuel	68		7	6	55								26	30		12
Lumber and shipping	7			7										3	3	1
Milk depots	22		8	5	9						2	2	6		11	1
Teaming, livery and storage	74	1	11	10	34		18		3		5	2	18	15	26	5
Totals	171	1	26	28	98		18		3		7	4	50	48	40	19
Recapitulation.																
Manufacturing	6784	131	3815	2033	758	4	43	4	217	1028	795	785	956	884	1048	1037
Wholesale	292	9	181	98	4				2	8	19	28	73	46	17	99
Retail	2530	28	1805	498	199			6	212	473	387	230	256	301	220	415
Miscellaneous	171	1	26	28	98		18		3		7	4	50	48	40	19
Grand totals	9777	169	5827	2657	1059	4	61	10	494	1509	1208	1047	1335	1279	1325	1570
Total males	6934	111	3042	2657	1059	4	61	10	171	333	586	697	1149	1179	1287	1522
Total females	2843	58	2785						323	1176	622	350	186	100	38	48

TABLE No. 18. CITY OF OAKLAND.

Female Employees. Hours of Labor and Wages. (Tabulated by industry.)

INDUSTRY.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing.																
Awnings, tents, etc.	3		3								1	1	1			
Bakery products	31		31							22	5	3		1		
Boilers, engines and tanks	2		2									1		1		
Boots and shoes	36		36							12	10	12	2			
Boxes, paper	54		54						26	21	5		1	1		
Boxes, wood	1		1										1			
Butter and dairy products	22	2	20							1	9	4	2	3	2	1
Carriages and wagons	1		1										1			
Clothing	62		62						5	15	16	11	7	4	1	3
Coffee, spices, etc.	1		1							1						
Confectionery	34		34							12	7	12	3			
Cotton mills	298		298						82	185	30	1				
Drugs and chemicals	8		8							7			1			
Dyeing and cleaning	47		47						2	16	11	11	5	1		1
Electrical goods and supplies	44		44							40	3			1		
Fixtures, gas and electric	172		172						28	102	36	2	2	1		1
Flouring mill products	2		2									2				
Foundries	4		4									2	1	1		
Furniture	4		4							1	1		2			
Garages and repair shops	1		1									1				
Glass and glassware	1		1											1		
Gloves	32		32						1	10	11	6	1	3		
Jewelry, watches, silversmiths, etc.	1		1							1						
Laundries, hand	11		11							4		7				
Laundries, steam	385		385							198	88	69	20	8	2	
Liquors, malt	2		2									1	1			
Lithographing	3		3								3					
Lumber and milling	19	1	18								6	2	6	2	2	1
Mattresses, pillows and bedding	11		11							6	1	3		1		
Moldings and frames, picture	9		9							1	2	4	1			1
Paints, varnishes, etc.	8	2	6							2	3	1	2			
Pickles, preserves, sauces, etc.	32		32							26	4	1	1			
Plating	1		1										1			
Printing, binding, newspapers, etc.	140	7	133						3	63	35	17	13	5	1	3

TABLE No. 18. CITY OF OAKLAND.

Female Employees. Hours of Labor and Wages. (Tabulated by industry.)—Continued.

INDUSTRY.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Restaurants	51	32	19						13	25	6	1	5	1		
Rubber goods	2		2										2			
Slaughtering and meat packing	3	1	2									1		2		
Miscellaneous	26	1	25						6	12	3	3	2			
Totals	1564	46	1518						166	783	296	179	84	37	8	11
Wholesale.																
Building materials	1		1								1					
Clothing	20		20							2	5	7	6			
Furniture	2	2								1	1					
Groceries	2		2									2				
Hardware	7	6	1								1	1	3	2		
Manufacturers' agents	11		11								5		6			
Plumbing supplies	4		4									2	1	1		
Miscellaneous	2		2									1	1			
Totals	49	8	41							3	13	13	17	3		
Retail.																
Automobile accessories	10		10									4	1	3	1	1
Boots and shoes	5		5							1	2	1		1		
Butcher shops	8		8							2	3	1	1			1
Clothing	148		148						6	34	39	26	17	13	8	5
Confectionery	78		78							38	25	8	7			
Department stores	277		277						74	86	63	21	5	12	8	8
Drug stores	45		45							9	12	13	7	1	1	2
Dry goods	480		480						72	169	112	58	25	18	10	16
Furniture	32	2	30							3	7	5	14	2		1
Groceries	17		17							2	8	7				
Hardware	7		7								4	1		2		
Household goods, crockery, glassware, etc.	48	1	47						2	18	21	6		1		
Jewelry	3		3										2	1		

Millinery	49		49						3	28	6	3	2	3	1	3
Music and musical instruments	11		11								4	2	3	2		
Stationery	1		1								1					
Miscellaneous	2		2								1		1			
Totals	1221	3	1218						157	390	308	156	85	59	29	37
Miscellaneous.																
Feed and fuel	1		1											1		
Milk depots	3		3								1	2				
Teaming, livery and storage	5	1	4								4				1	
Totals	9	1	8								5	2		1	1	
Recapitulation.																
Manufacturing	1564	46	1518						166	783	296	179	84	37	8	11
Wholesale	49	8	41							3	13	13	17	3		
Retail	1221	3	1218						157	390	308	156	85	59	29	37
Miscellaneous	9	1	8								5	2		1	1	
Grand totals	2843	58	2785						323	1176	622	350	186	100	38	48

TABLE No. 19. CITY OF SACRAMENTO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Bakery Products.	9	establishments.														
Manufacturing:																
Bakers	35			35									1	2	17	15
Bakers, apprentices	2			2							2					
Bakers, helpers	13			13								8	5			
Cooks	7				5	1	1				1			1	4	1
Drivers	14			11	3									14		
Kitchen help	10				9		1				10					
Waiters	9			2	7							8			1	
Waitresses	14		14							13	1					
Clerical:																
Cashiers (F.)	2		2								2					
Saleswomen	10		10							4	6					
Totals	116		26	63	24	1	2			17	22	16	6	17	22	16
Brick.	1	establishment.														
Manufacturing:																
Blacksmiths	1				1										1	
Engineers	2				2										1	1
Machinists	1				1											1
Managers and foremen	6				6									4		2
General help	112				112							17	69	26		
Totals	122				122							17	69	30	2	4
Carriages and Wagons.	3	establishments.														
Manufacturing:																
Blacksmiths	8			8									1	2	4	1
Blacksmiths, helpers	6			6							3	2	1			
Machinists	6			6										2	3	1
Machinists, apprentices	3			3					1		2					
Managers and foremen	1			1												1
Painters	13			13								2	3	3	3	2

Teamsters	2	-----	-----	2	-----	-----	-----	-----	-----	-----	-----	2	-----	-----	-----	-----
Trimmers	6	-----	-----	6	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	4	1
Trimmers, apprentices	2	-----	-----	2	-----	-----	-----	-----	-----	1	1	-----	-----	-----	-----	-----
Wagon makers	5	-----	-----	5	-----	-----	-----	-----	-----	-----	-----	-----	-----	4	1	-----
Clerical:																
Bookkeepers	2	-----	-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	2
Salesmen	4	-----	-----	4	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	-----	3
Stenographers (F.)	1	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	-----	-----
Totals	59	-----	1	58	-----	-----	-----	-----	1	1	6	8	5	12	15	11
Cigars and Cigarettes.	3	establishments.														
Manufacturing:																
Banders (F.)	2	-----	2	-----	-----	-----	-----	-----	-----	2	-----	-----	-----	-----	-----	-----
Cigar makers	28	-----	28	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	14	14	-----
Cigar makers, apprentices	2	-----	2	-----	-----	-----	-----	-----	-----	-----	1	1	-----	-----	-----	-----
Cigar makers, apprentices (F.)	1	-----	1	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	-----	-----	-----
Managers and foremen	1	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
Strippers (F.)	10	-----	10	-----	-----	-----	-----	-----	-----	8	2	-----	-----	-----	-----	-----
Clerical:																
Errand boys	1	-----	1	-----	-----	-----	-----	-----	-----	1	-----	-----	-----	-----	-----	-----
Salesmen	1	-----	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	-----
Totals	46	-----	45	1	-----	-----	-----	-----	-----	11	4	1	-----	14	15	1
Confectionery.	2	establishments.														
Manufacturing:																
Candy makers	3	-----	-----	3	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	3
Candy makers, helpers	11	-----	-----	11	-----	-----	-----	-----	-----	1	6	4	-----	-----	-----	-----
Chocolate dippers (F.)	4	-----	4	-----	-----	-----	-----	-----	2	1	-----	1	-----	-----	-----	-----
Engineers	1	-----	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
Managers and foremen	1	-----	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
Managers and forewomen	2	-----	2	-----	-----	-----	-----	-----	-----	-----	1	1	-----	-----	-----	-----
Packers (F.)	30	-----	30	-----	-----	-----	-----	-----	20	9	1	-----	-----	-----	-----	-----
Porters and packers	4	-----	-----	4	-----	-----	-----	-----	-----	-----	-----	1	3	-----	-----	-----
Teamsters	2	-----	-----	2	-----	-----	-----	-----	-----	-----	-----	1	1	-----	-----	-----
General help	10	-----	-----	10	-----	-----	-----	-----	1	-----	4	1	1	1	2	-----
General help (F.)	6	-----	6	-----	-----	-----	-----	-----	5	1	-----	-----	-----	-----	-----	-----
Clerical:																
Bookkeepers (F.)	2	-----	2	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	1	-----	-----
Cashiers	1	-----	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
Office clerks	5	-----	-----	5	-----	-----	-----	-----	-----	-----	1	-----	4	-----	-----	-----

TABLE No. 19. CITY OF SACRAMENTO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical—Continued.																
Office clerks (F.)	4		4							1	2	1				
Shipping clerks	3			3									2	1		
Stenographers (F.)	1		1									1				
Totals	90		49	41					28	13	16	11	11	3	2	6
Clothing.	5	establishments.														
Manufacturing:																
Operators (F.)	16		16						5	7	3	1				
Seamstresses	7		7							2	2	3				
Tailors	26		8	18											16	10
Clerical:																
Errand boys	2		2						1	1						
Totals	51		33	18					6	10	5	4			16	10
Extracts, Spices, etc.	2	establishments.														
Manufacturing:																
Chemists	1			1										1		
Labelers (F.)	3		3						1	1	1					
Managers and foremen	1			1										1		
Porters and packers	4			4							1	3				
Clerical:																
Bookkeepers (F.)	2		2									1			1	
Office clerks (F.)	1		1						1							
Salesmen	3		3												1	2
Shipping clerks	1			1										1		
Totals	16		9	7					2	1	2	4		3	2	2

Electrical Goods and Supplies.	4	establishments.														
Manufacturing:																
Electricians	22		22													22
Electricians, apprentices	4		4						1	2			1			
Electricians, helpers	4		4									1		3		
Fixture makers	6		6													6
Fixture makers, apprentices	1		1							1						
Managers and foremen	2		1	1												2
Plumbers	6		6													6
Plumbers, apprentices	2		2							2						
Sheet metal workers	1		1													1
Teamsters	1			1					1							
Clerical:																
Bookkeepers	1		1													1
Bookkeepers (F.)	2		2							1		1				
Salesmen	8		2	6					1	1				3		3
Saleswomen	1		1						1							
Stenographers (F.)	1		1										1			
Stock clerks	2		1	1					1				1			
Totals	64		55	9					5	7		2	3	6		41
Flouring Mill Products.	1	establishment.														
Manufacturing:																
Managers and foremen	1			1										1		
Millers	2			2												2
Mill hands	3			3										3		
Porters and packers	3			3										3		
Teamsters	6			6									1		5	
Warehousemen	15			15									15			
Clerical:																
Bookkeepers	4			4										2		2
Salesmen	2			2												2
Shipping clerks	3			3											3	
Totals	39			39									16	9	8	6
Harness and Saddlery.	3	establishments.														
Manufacturing:																
Leather workers	49			49					1	4	2	4	8	17	9	4
Managers and foremen	4			4												4
Porters and packers	3			3								1		1	1	

TABLE No. 19. CITY OF SACRAMENTO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical:																
Bookkeepers	1			1												1
Bookkeepers (F.)	1		1											1		
Salesmen	20			20								1	2	3	3	11
Shipping clerks	1			1												1
Stenographers (F.)	3		3								2			1		
Totals	82		4	78					1	4	4	6	10	23	13	21
Ice.	1	establishment.														
Manufacturing:																
Engineers	3		3												3	
Firemen	1		1											1		
Ice pullers	3		3											3		
Managers and foremen	2				2											2
Teamsters	6				6									4	2	
Warehousemen	2		1				1							1		1
Clerical:																
Office clerks	1		1										1			
Stenographers (F.)	1		1													1
Totals	19		10		8		1						1	9	5	4
Laundries, Hand.	4	establishments.														
Manufacturing:																
Ironers, hand	12			3	9					2	7	2	1			
Ironers, hand (F.)	11		11						1	1	7	2				
Ironers, machine	1				1						1					
Washroom hands	2			1	1						2					
General help	2		1		1			1		1						
Totals	28		12	4	12			1	1	4	17	4	1			

Laundries, Steam.	4	est	ablis	hmen	ts.											
Manufacturing:																
Drivers	28	-----	28	-----	-----	-----	-----	-----	-----	-----	-----	-----	28	-----	-----	-----
Engineers	4	-----	1	3	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	2	2
Ironers, hand	1	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	-----	-----
Ironers, hand (F.)	47	-----	47	-----	-----	-----	-----	-----	-----	6	30	10	1	-----	-----	-----
Ironers, machine	7	-----	7	-----	-----	-----	-----	-----	-----	-----	-----	5	1	1	-----	-----
Ironers, machine (F.)	39	-----	39	-----	-----	-----	-----	-----	-----	1	23	13	1	1	-----	-----
Managers and foremen	5	-----	3	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	4
Manglers	8	-----	8	-----	-----	-----	-----	-----	-----	-----	2	3	-----	3	-----	-----
Manglers (F.)	55	-----	55	-----	-----	-----	-----	-----	-----	31	20	2	2	-----	-----	-----
Markers and distributors	22	-----	22	-----	-----	-----	-----	-----	-----	1	-----	2	9	8	2	-----
Markers and distributors (F.)	3	-----	3	-----	-----	-----	-----	-----	-----	-----	1	1	1	-----	-----	-----
Seamstresses	1	-----	1	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	-----	-----	-----
Shirt folders (F.)	2	-----	2	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	1	-----	-----
Shirt finishers (F.)	3	-----	3	-----	-----	-----	-----	-----	-----	-----	1	2	-----	-----	-----	-----
Starchers	10	-----	10	-----	-----	-----	-----	-----	-----	-----	2	4	1	3	-----	-----
Starchers (F.)	5	-----	5	-----	-----	-----	-----	-----	-----	3	2	-----	-----	-----	-----	-----
Washroom hands	15	-----	15	-----	-----	-----	-----	-----	-----	-----	-----	2	5	5	3	-----
Clerical:																
Bookkeepers	1	-----	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	-----
Bookkeepers (F.)	8	-----	8	-----	-----	-----	-----	-----	-----	-----	3	1	1	1	1	1
Office clerks	1	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	-----
Totals	265	-----	259	6	-----	-----	-----	-----	-----	42	86	46	51	23	10	7
Liquors, Malt.	2	est	ablis	hmen	ts.											
Manufacturing:																
Bottlers	59	-----	59	-----	-----	-----	-----	-----	-----	-----	2	-----	-----	56	-----	1
Bottlers, apprentices	7	-----	7	-----	-----	-----	-----	-----	-----	7	-----	-----	-----	-----	-----	-----
Brewers	41	-----	41	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	34	7
Brewers, apprentices	2	-----	2	-----	-----	-----	-----	-----	-----	-----	-----	2	-----	-----	-----	-----
Brewmasters	2	-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	2
Cellarmen	5	-----	5	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	5	-----
Coopers and carpenters	6	-----	6	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	5
Drivers, bottle	10	-----	3	-----	7	-----	-----	-----	-----	-----	-----	-----	-----	-----	2	8
Drivers, keg	14	-----	-----	-----	14	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	14
Engineers	7	-----	7	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	7
Firemen	6	-----	6	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	5	1
Machinists	8	-----	8	-----	-----	-----	-----	-----	-----	-----	-----	-----	2	2	4	-----
Maltsters	1	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	-----
Managers and foremen	3	-----	3	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	3
Stablemen	4	-----	2	-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	4
Teamsters	11	-----	-----	-----	11	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	11
General help	25	-----	24	-----	-----	-----	1	-----	-----	-----	-----	2	1	20	1	1

TABLE No. 19. CITY OF SACRAMENTO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical:																
Bookkeepers	5		5													5
Cashiers	1		1													1
Errand boys	1		1								1					
Office clerks	5		4	1										3		2
Salesmen	3		3													3
Shipping clerks	7		5		2									3		4
Stenographers (F.)	1		1											1		
Totals	234		196	1	36		1			7	3	4	3	85	53	79
Lumber and Milling.	4	establishments.														
Manufacturing:																
Bench hands	19		19										1	1	17	
Bench hands, apprentices	5		5							1			4			
Cabinet makers	1		1												1	
Draughtsmen	1		1													1
Glaziers	1		1												1	
Lumber hands	5		5									4			1	
Managers and foremen	7		6	1										1		6
Mill hands	17		17									17				
Millwrights	1		1												1	
Planers	3		3											2	1	
Sanders	3		3										1		2	
Sash and door makers	2		2												2	
Saw filers	1		1													1
Sawyers	4		4												4	
Stickers	7		7												5	2
Stickers, apprentices	1		1								1					
Teamsters	3		1	1	1									3		
Watchmen	1		1									1				
Wood turners	2		1	1											2	
General help	14			14									14			

Clerical:																
Bookkeepers	2	-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	1
Bookkeepers (F.)	2	-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	2	-----	-----	-----
Office clerks (F.)	1	-----	1	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	-----	-----	-----
Salesmen	2	-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	2
Shipping clerks	1	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	-----
Stenographers (F.)	2	-----	2	-----	-----	-----	-----	-----	-----	-----	1	1	-----	-----	-----	-----
Totals	108	-----	89	18	1	-----	-----	-----	-----	1	3	23	23	8	37	13
Machinery and Foundries.	6	establishments.														
Manufacturing:																
Blacksmiths	3	-----	1	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	3	-----
Blacksmiths, apprentices	1	-----	1	-----	-----	-----	-----	-----	1	-----	-----	-----	-----	-----	-----	-----
Blacksmiths, helpers	1	-----	-----	1	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	-----	-----
Boiler makers	6	-----	-----	6	-----	-----	-----	-----	-----	-----	-----	-----	-----	6	-----	-----
Boiler makers, apprentices	1	-----	-----	1	-----	-----	-----	-----	-----	1	-----	-----	-----	-----	-----	-----
Boiler makers, helpers	3	-----	-----	3	-----	-----	-----	-----	-----	-----	-----	-----	3	-----	-----	-----
Casting chippers	6	-----	-----	6	-----	-----	-----	-----	-----	-----	-----	-----	6	-----	-----	-----
Core makers	2	-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	1	-----
Cupolamen	1	-----	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	-----
Draughtsmen	1	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
Machinists	22	-----	18	4	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	21	1
Machinists, apprentices	8	-----	8	-----	-----	-----	-----	-----	1	4	1	1	1	-----	-----	-----
Machinists, helpers	2	-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	2	-----	-----
Managers and foremen	2	-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	2
Molders	10	-----	10	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	10	-----
Molders, apprentices	1	-----	1	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	-----	-----	-----
Pattern makers	2	-----	-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	2	-----
Pattern makers, apprentices	1	-----	-----	1	-----	-----	-----	-----	1	-----	-----	-----	-----	-----	-----	-----
General help	55	-----	-----	55	-----	-----	-----	-----	-----	-----	-----	20	22	5	8	-----
Clerical:																
Bookkeepers	2	-----	2	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	-----	1
Office clerks	1	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	-----	-----
Totals	131	-----	48	83	-----	-----	-----	-----	3	5	2	24	34	13	45	5
Newspapers.	3	establishments.														
Manufacturing:																
Artists	2	-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	2
Carriers	20	-----	20	-----	-----	-----	-----	-----	-----	-----	20	-----	-----	-----	-----	-----
Compositors	36	-----	36	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	36
Compositors, apprentices	5	-----	5	-----	-----	-----	-----	-----	-----	2	2	1	-----	-----	-----	-----

TABLE No. 19. CITY OF SACRAMENTO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Engravers	3		3								2					1
Linotype operators	15		15													15
Linotype operators, apprentices	2		2					2								
Machinists	1		1													1
Mailing room help	23		23						2	3		2	1	9	5	1
Managers and foremen	10		10													10
Pressmen	14		14												7	7
Pressmen, apprentices	2		2								1		1			
Proofreaders	1		1													1
Proofreaders (F.)	3		3							1	1					1
Porters and packers	2		2							1			1			
Reporters and editors	48		48									1	3	1	20	23
Reporters (F.)	1		1										1			
Stereotypers	7		7												4	3
Stereotypers, helpers	4		4						1		2		1			
Clerical:																
Bookkeepers	6		6								1		2	1		2
Bookkeepers (F.)	2		2										2			
Collectors	3		3								1		1	1		
Errand boys	3		3						3							
Office clerks	10		10						1		3		1	1	1	3
Office clerks (F.)	2		2									2				
Solicitors	12		12											2	8	2
Stenographers (F.)	7		7									1	6			
Totals	244		244					2	7	7	33	7	20	15	45	108
Photographs.	2	establishments.														
Manufacturing:																
Artists	1		1													1
Artists (F.)	1		1								1					
Engravers	7		7												4	3
Engravers, apprentices	1		1						1							
Photographers	3			3									1	1		1

Clerical:																
Bookkeepers (F.)	1	----	1	----	----	----	----	----	----	----	----	1	----	----	----	----
Office clerks	1	----	1	----	----	----	----	----	1	----	----	----	----	----	----	----
Salesmen	1	----	1	----	----	----	----	----	----	----	----	----	----	----	----	1
Totals	16	----	13	3	----	----	----	----	2	----	1	1	1	1	4	6
Printing and Bookbinding.	10	establishments.														
Manufacturing:																
Bindery girls	16	----	16	----	----	----	----	----	3	7	4	1	1	----	----	----
Bookbinders	8	----	8	----	----	----	----	----	----	----	----	----	1	1	3	3
Bookbinders, apprentices	4	----	4	----	----	----	----	----	----	3	1	----	----	----	----	----
Compositors	29	----	29	----	----	----	----	----	----	----	----	----	----	----	21	8
Compositors, apprentices	9	----	9	----	----	----	----	----	1	4	----	2	2	----	----	----
Linotype operators	10	----	10	----	----	----	----	----	----	----	----	----	----	----	----	10
Lithographers	1	----	1	----	----	----	----	----	----	----	----	----	----	----	----	1
Managers and foremen	8	----	8	----	----	----	----	----	----	----	----	----	----	----	----	8
Paper cutters	2	----	2	----	----	----	----	----	----	----	----	----	----	----	2	----
Porters and packers	2	----	----	2	----	----	----	----	----	----	----	----	2	----	----	----
Press feeders	14	----	14	----	----	----	----	----	1	1	2	7	3	----	----	----
Pressmen	14	----	14	----	----	----	----	----	----	----	----	----	----	1	6	7
Pressmen, apprentices	6	----	6	----	----	----	----	----	----	1	1	----	2	2	----	----
Proofreaders (F.)	1	----	1	----	----	----	----	----	----	----	----	----	1	----	----	----
Clerical:																
Bookkeepers	4	----	3	1	----	----	----	----	----	----	----	1	----	1	1	1
Bookkeepers (F.)	1	----	1	----	----	----	----	----	----	----	----	----	1	----	----	----
Errand boys	10	----	7	3	----	----	----	2	6	2	----	----	----	----	----	----
Office clerks	1	----	1	----	----	----	----	----	----	----	----	----	----	----	----	1
Office clerks (F.)	2	1	1	----	----	----	----	----	----	----	1	----	----	----	1	----
Solicitors	12	----	6	6	----	----	----	----	----	----	----	----	----	1	2	9
Stenographers (F.)	2	----	2	----	----	----	----	----	----	----	----	1	1	----	----	----
Totals	156	1	143	12	----	----	----	2	11	18	9	12	14	6	36	48
Restaurants.	6	establishments.														
Manufacturing:																
Bakers	1	----	----	1	----	----	----	----	----	----	----	----	----	1	----	----
Cooks	5	----	----	----	3	1	1	----	----	----	----	----	2	2	----	1
Cooks, helpers	3	----	----	----	3	----	----	----	----	----	----	3	----	----	----	----
Kitchen help	3	----	----	----	1	1	1	----	----	1	2	----	----	----	----	----
Waiters	18	----	----	3	8	----	7	----	----	----	10	----	8	----	----	----
Waitresses	20	----	20	----	----	----	----	----	----	14	5	1	----	----	----	----

TABLE No. 19. CITY OF SACRAMENTO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical:																
Cashiers	1				1						1					
Cashiers (F.)	1		1								1					
Totals	52		21	4	16	2	9			15	19	4	10	3		1
Slaughtering and Meat Packing.	1	establishment.														
Manufacturing:																
Coolermen	3				3								1	1		1
Killers and dressers	6				6									6		
Teamsters	1				1						1					
Vaqueros	2				2						1					1
General help	3				3						1	2				
Totals	15				15						3	2	1	7		2
Tinware, Sheet Metal, etc.	2	establishments.														
Manufacturing:																
Plumbers	5		5													5
Plumbers, apprentices	2		2								2					
Sheet metal workers	14		14													14
Sheet metal workers, apprentices	4		4								4					
Sheet metal workers, helpers	3		2		1								3			
Clerical:																
Bookkeepers	1		1											1		
Bookkeepers (F.)	2		2							1				1		
Salesmen	3				3									1	1	1
Totals	34		30		4					1	6		3	3	1	20
Wineries.	2	establishments.														
Manufacturing:																
Bottlers (F.)	2		2							2						
Cellarmen	10		1	9								7			2	1

Coopers	4	------	4	------	------	------	------	------	------	------	------	------	2	------	1	1
Engineers	3	------	------	------	3	------	------	------	------	------	------	------	------	1	------	2
Firemen	1	------	1	------	------	------	------	------	------	------	------	------	------	1	------	------
Managers and foremen	1	1	------	------	------	------	------	------	------	------	------	------	------	------	------	1
Rectifiers	1	------	1	------	------	------	------	------	------	------	------	------	------	------	------	1
Teamsters	5	------	2	------	3	------	------	------	------	------	------	1	2	2	------	------
General help	44	------	43	------	------	------	1	------	------	------	------	33	11	------	------	------
Clerical:																
Bookkeepers	2	2	------	------	------	------	------	------	------	------	------	------	------	1	------	1
Bookkeepers (F.)	1	------	1	------	------	------	------	------	------	------	------	------	------	1	------	------
Office clerks	2	2	------	------	------	------	------	------	------	1	------	------	------	------	------	1
Salesmen	9	------	9	------	------	------	------	------	------	------	------	------	------	------	------	9
Stenographers (F.)	4	2	2	------	------	------	------	------	------	------	1	1	------	1	------	1
Telephone girls	1	1	------	------	------	------	------	------	------	------	1	------	------	------	------	------
Totals	90	8	66	9	6	------	1	------	------	2	3	42	15	7	3	18
Miscellaneous.	6	establishments.														
Manufacturing:																
Butter makers	3	------	------	------	3	------	------	------	------	------	------	------	------	1	1	1
Cleaners and pressers	3	------	------	3	------	------	------	------	------	------	------	------	3	------	------	------
Engineers	1	------	------	1	------	------	------	------	------	------	------	------	------	------	------	1
Ice cream makers	1	------	------	------	------	1	------	------	------	------	------	------	------	------	1	------
Machinists	2	------	2	------	------	------	------	------	------	------	------	------	------	------	2	------
Managers and foremen	1	------	1	------	------	------	------	------	------	------	------	------	1	------	------	------
Paste makers	4	------	------	4	------	------	------	------	------	------	------	------	4	------	------	------
Pressers (F.)	2	------	2	------	------	------	------	------	------	------	1	1	------	------	------	------
Soap wrappers (F.)	2	------	2	------	------	------	------	------	------	------	2	------	------	------	------	------
Teamsters	5	------	------	2	3	------	------	------	------	------	------	------	1	2	1	1
General help	16	1	3	7	5	------	------	------	------	2	------	3	7	2	2	------
Clerical:																
Bookkeepers	2	------	1	1	------	------	------	------	------	------	------	------	------	------	1	1
Bookkeepers (F.)	1	------	1	------	------	------	------	------	------	------	------	------	1	------	------	------
Office clerks (F.)	2	------	2	------	------	------	------	------	------	------	------	2	------	------	------	------
Salesmen	7	------	7	------	------	------	------	------	------	------	------	------	------	5	------	2
Saleswomen	1	------	1	------	------	------	------	------	------	------	1	------	------	------	------	------
Shipping clerks	1	------	------	------	------	1	------	------	------	------	------	------	1	------	------	------
Stenographers (F.)	1	------	1	------	------	------	------	------	------	1	------	------	------	------	------	------
Totals	55	1	23	18	11	2	------	------	------	3	4	6	18	10	8	6

TABLE No. 20. CITY OF SACRAMENTO.

Wholesale Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Commission Merchants.	6	establishments.														
Bookkeepers	13			10	3								2	3	1	7
Bookkeepers (F.)	2		2										2			
Buyers	5		5												1	4
Cashiers	2			1	1											2
Errand boys	2		1	1						2						
Managers and foremen	6			5	1									2	1	3
Porters and packers	61			43	18							1	37	21	2	
Salesmen	30		25	5										3	1	26
Shipping clerks	7			7										2	5	
Stenographers	3			3										2		1
Stenographers (F.)	8		8								2	1	3	1	1	
Teamsters	11			6	5								5	5	1	
Totals	150		41	81	28					2	2	2	49	39	13	43
Drugs.	2	establishments.														
Bookkeepers	4		3	1								1			1	2
Cashiers	1		1													1
Chemists	2		2													2
Errand boys	2		2							2						
Labelers (F.)	8		8							3	5					
Office clerks	2		2													2
Office clerks (F.)	4		4									1	3			
Porters and packers	6		2		4							2		3	1	
Salesmen	9		6		3											9
Shipping clerks	1			1										1		
Stenographers (F.)	2		2										1	1		
Stock clerks	28		21	7						3	3	6	2	3	4	7
Teamsters	2		2												2	
Totals	71		55	9	7					8	8	10	6	8	8	23

Groceries.	4	est	ablis	hmen	ts.											
Bookkeepers	8	------	------	8	------	------	------	------	------	------	------	------	1	------	3	4
Bookkeepers (F.)	2	------	2	------	------	------	------	------	------	1	------	------	------	------	1	------
Cashiers	1	------	------	1	------	------	------	------	------	------	------	------	------	------	------	1
Coffee roasters	1	------	------	1	------	------	------	------	------	------	------	------	------	------	1	------
Managers and foremen	2	------	------	2	------	------	------	------	------	------	------	------	------	------	------	2
Office clerks	8	------	------	8	------	------	------	------	------	------	1	1	------	3	1	2
Packers (F.)	3	------	3	------	------	------	------	------	------	3	------	------	------	------	------	------
Porters and packers	40	------	------	40	------	------	------	------	------	------	------	2	36	2	------	------
Salesmen	25	------	------	22	3	------	------	------	------	------	------	------	2	1	------	22
Shipping clerks	4	------	------	4	------	------	------	------	------	------	------	------	------	2	1	1
Stenographers	1	------	------	1	------	------	------	------	------	------	------	------	------	------	1	------
Stenographers (F.)	4	------	4	------	------	------	------	------	------	------	------	1	2	1	------	------
Teamsters	9	------	------	9	------	------	------	------	------	------	1	------	6	------	2	------
Telephone girls	1	------	1	------	------	------	------	------	------	------	1	------	------	------	------	------
Totals	109	------	10	96	3	------	------	------	------	4	3	4	47	9	10	32
Hardware.	2	est	ablis	hmen	ts.											
Bookkeepers	3	------	1	2	------	------	------	------	------	------	1	------	------	1	------	1
Bookkeepers (F.)	3	------	3	------	------	------	------	------	------	------	------	2	1	------	------	------
Cashiers	1	------	1	------	------	------	------	------	------	------	------	------	------	------	------	1
Cashiers (F.)	1	------	1	------	------	------	------	------	------	------	------	------	------	1	------	------
Errand boys	2	------	1	1	------	------	------	------	1	1	------	------	------	------	------	------
Managers and foremen	5	------	1	4	------	------	------	------	------	------	------	------	------	------	------	5
Office clerks	7	------	1	6	------	------	------	------	------	4	------	------	2	------	------	1
Office clerks (F.)	8	------	8	------	------	------	------	------	------	4	3	------	1	------	------	------
Porters and packers	11	------	------	11	------	------	------	------	------	------	1	5	3	2	------	------
Salesmen	25	------	------	25	------	------	------	------	------	------	------	1	------	1	7	16
Shipping clerks	19	------	1	18	------	------	------	------	------	4	2	------	4	4	3	2
Stenographers (F.)	5	------	5	------	------	------	------	------	------	1	1	2	1	------	------	------
Stock clerks	6	------	2	4	------	------	------	------	------	------	------	------	1	2	1	2
Totals	96	------	25	71	------	------	------	------	1	14	8	10	13	11	11	28
Plumbing Supplies.	2	est	ablis	hmen	ts.											
Bookkeepers	1	------	1	------	------	------	------	------	------	------	------	------	------	------	------	1
Bookkeepers (F.)	2	------	2	------	------	------	------	------	------	------	------	------	------	2	------	------
Cashiers (F.)	1	------	1	------	------	------	------	------	------	------	1	------	------	------	------	------
Errand boys	9	------	9	------	------	------	------	------	------	4	5	------	------	------	------	------
Managers and foremen	3	------	3	------	------	------	------	------	------	------	------	------	------	------	------	3
Office clerks	2	------	2	------	------	------	------	------	------	------	1	1	------	------	------	------
Porters and packers	10	------	10	------	------	------	------	------	------	------	------	------	6	4	------	------
Salesmen	7	------	7	------	------	------	------	------	------	------	------	------	------	------	------	7

TABLE No. 20. CITY OF SACRAMENTO.

Wholesale Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Plumbing Supplies—Continued.																
Shipping clerks	1		1										1			
Stenographers (F.)	6		6									2	4			
Stock clerks	3		3										2	1		
Totals	45		45							4	7	3	13	7		11
Miscellaneous.	5	establishments.														
Bookkeepers	6		4	2										2	2	2
Bookkeepers (F.)	4		4								2	1	1			
Cashiers	1		1												1	
Cashiers (F.)	2		2							1	1					
Errand boys	5		1	4						3	2					
Glaziers	9		9												9	
Managers and foremen	7		7												1	6
Office clerks	6		5	1							2	1	2		1	
Office clerks (F.)	4		4								3	1				
Porters and packers	28		8	20						2	1	9	7	7		2
Salesmen	29		8	21							5	1		1	2	20
Saleswomen	2	1	1							2						
Shipping clerks	3		1	2								1		1	1	
Stenographers (F.)	9		9								6	2	1			
Stock clerks	4			4						2		2				
Teamsters	7		4	3							1		4	2		
General help	4			4						1	1	1				1
Totals	130	1	68	61						11	24	19	15	13	17	31

TABLE No. 21. CITY OF SACRAMENTO.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Butcher Shops.	6	establishments.														
Bookkeepers	4		1		3						1		1		1	1
Cashiers (F.)	2		2								2					
Drivers	12				12					1	2	1	2	6		
Errand boys	2	1		1					1		1					
Managers and foremen	1				1											1
Meat cutters	40				40							1	3	29	6	1
Office clerks	2				2								2			
Sausage makers	8				8								1	3	2	2
Stablemen	2				2						1		1			
Stenographers (F.)	1		1								1					
Telephone girls	1		1									1				
Wrappers	3				3							1	2			
Totals	78	1	5	1	71				1	1	8	4	12	38	9	5
Clothing.	6	establishments.														
Alteration hands (F.)	20		20							1	6	5	5	2		1
Bookkeepers (F.)	4		4										1	1		2
Cashiers (F.)	8		8							2	5		1			
Collectors	1			1									1			
Errand boys	6		4	2						6						
Managers and foremen	1			1												1
Millinery workers (F.)	3		3					1					1			1
Office clerks	1			1												1
Porters and packers	4		2	2								1	2	1		
Salesmen	30		12	15			3						3	4	6	17
Saleswomen	18		18							3	4		3	1	4	3
Stenographers (F.)	3		3								2		1			
Tailors	7		2	5										3	1	3
Wrappers (F.)	4		4							3	1					
Totals	110		80	27			3	1		15	18	6	18	12	11	29

TABLE No. 21. CITY OF SACRAMENTO.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Confectionery.	4	establishments.														
Bookkeepers	1	1											1			
Bookkeepers (F.)	1		1									1				
Candy makers	3			3										1		2
Candy makers, helpers	2			2							1		1			
Cashiers (F.)	2	2										2				
Chocolate dippers (F.)	4		4								2	1	1			
Managers and foremen	1			1												1
Porters and packers	2			1	1							1	1			
Salesmen	1				1							1				
Saleswomen	17	5	12							5	10		1	1		
Soda dispensers	5	3				2								1	2	2
Teamsters	2			2									1	1		
Waitresses	17	11	6							14	3					
Totals	58	22	23	9	2	2				19	16	6	6	4	2	5
Department Stores.	5	establishments.														
Alteration hands (F.)	45		45						1	13	14	8	4	2	2	1
Bookkeepers	4		4										1	1		2
Bookkeepers (F.)	12		12							3	2	4	1	1	1	
Buyers	4		4													4
Cash girls	31		31						31							
Cashiers	4		4											2		2
Cashiers (F.)	26		26						3	21	2					
Engineers, electricians, etc.	4		4													4
Errand boys	13		13						11	2						
Managers and foremen	35		35											1	1	33
Managers and forewomen	1		1													1
Millinery workers (F.)	56		56					17	6	11	10	4	3	2		3
Office clerks	25		25					1	2	9	2	3	1	1	1	5
Office clerks (F.)	179		179						53	86	25	7	5	1	1	1
Porters and packers	51		50		1				1	13	9	6	15	4	3	
Salesmen	104		104						2	6	8	7	15	15	11	40
Saleswomen	229		229						30	77	47	29	19	8	6	13

Shipping clerks	10		10							2	5		1	2		
Stenographers (F.)	9		9						1	2	3	2		1		
Stock clerks	30		30					2	6	13	5	3	1			
Tailors	6		6											3	1	2
Teamsters	3		3									1	1	1		
Window dressers	8		8							1	1		2	1		3
Wrappers (F.)	9		9						6	3						
General help	5		5						1	1				1		2
General help (F.)	58	1	57					1	36	7	4	3	5	1		1
Totals	961	1	959		1			21	190	270	137	77	74	48	27	117
Drug Stores.	15	establishments.														
Bookkeepers (F.)	1		1										1			
Drug clerks	35			6	29									4	5	26
Drug clerks, apprentices	1				1							1				
Errand boys	28	6	7	13	2			3	14	10	1					
Managers and foremen	1				1											1
Photographers	2			2							1			1		
Photographers (F.)	1		1									1				
Porters and packers	1				1								1			
Saleswomen	2		2								1		1			
Soda dispensers	11		2	2	7					1	1		1	5	3	
Stock clerks	2			2							1	1				
Stock clerks (F.)	1		1							1						
Totals	86	6	14	25	41			3	14	12	5	3	4	10	8	27
Furniture.	3	establishments.														
Bookkeepers	7		6	1						1	1	2				3
Bookkeepers (F.)	3		3											2	1	
Cabinet makers	6		6								1			4	1	
Carpet layers	14		2	12										2	11	1
Cashiers (F.)	3		3							2		1				
Collectors	2		2									1		1		
Decorators	5		5							1						4
Drapery hangers	4			4											3	1
Errand boys	4		3	1					1	3						
Finishers	3			3								1		1	1	
Managers and foremen	15		14	1											1	14
Mattress makers	2			2										2		
Office clerks	5		5						2	1	1					1
Office clerks (F.)	13		13						3	8						2
Porters and packers	20		6	14						3	1	3	6	6	1	

TABLE No. 21. CITY OF SACRAMENTO.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Furniture—Continued.																
Salesmen	52		26	26						3	3	9	10	5	3	19
Saleswomen	16		16						2	8	5				1	
Seamstresses	16		16							1	12	3				
Shipping clerks	6			6									3	1		2
Stenographers (F.)	6		6								3	1	2			
Stock clerks	7		7						1			1		2		3
Teamsters	17			17									15	2		
Upholsterers	5		5									1		1	2	1
Watchmen	1						1						1			
General help	14		8	6								4		1	7	2
Totals	246		152	93			1		9	31	27	27	37	30	32	53
General Merchandise.	1	establishment.														
Bakers	6			6											4	2
Bakers, helpers	2			2									2			
Bookkeepers (F.)	1		1										1			
Cashiers (F.)	1		1									1				
Office clerks (F.)	3		3									2	1			
Porters and packers	10				10							2	4	3	1	
Salesmen	40				40									36	4	
Saleswomen	2		2								2					
Stenographers (F.)	1		1									1				
Teamsters	7				7									7		
Totals	73		8	8	57						2	6	8	46	9	2
Groceries.	2	establishments.														
Bookkeepers	1			1											1	
Bookkeepers (F.)	1		1											1		
Drivers	6				6						6					
Managers and foremen	5			1	4										1	4

Office clerks (F.)	4		4								4					
Salesmen	23				23							1	13	6	3	
Totals	40		5	2	33						10	1	13	7	5	4
Hardware.	2	est	ablis	hmen	ts.											
Bookkeepers	3		1	2											2	1
Bookkeepers (F.)	1		1										1			
Cashiers	1			1												1
Errand boys	1			1						1						
Managers and foremen	4		3	1												4
Office clerks	9		9									3			3	3
Porters and packers	14			14								1	9	4		
Salesmen	18		16	2									5		2	11
Shipping clerks	4		3	1									1		2	1
Stenographers (F.)	6		6								1	2	2	1		
Stock clerks	4			4									4			
Totals	65		39	26						1	1	6	22	5	9	21
Jewelry.	2	est	ablis	hmen	ts.											
Bookkeepers (F.)	1		1										1			
Jewelers	4			4												4
Opticians	2		2										1		1	
Opticians, apprentices	2		2							2						
Porters and packers	1	1								1						
Totals	10	1	5	4						3			2		1	4
Millinery.	2	est	ablis	hmen	ts.											
Apprentices (F.)	4		4					4								
Errand boys	1			1						1						
Makers (F.)	5		5						3	1	1					
Porters and packers	1			1									1			
Saleswomen	4		4								4					
Trimmers (F.)	2		2											1		1
Totals	17		15	2				4	3	2	5		1	1		1
Stationery.	2	est	ablis	hmen	ts.											
Bookkeepers (F.)	2		2										1			1
Errand boys	2			2						2						

TABLE No. 21. CITY OF SACRAMENTO.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)--Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Stationery—Continued.																
Salesmen	6			6									2	2	1	1
Saleswomen	1		1								1					
Totals	11		3	8						2	1		3	2	1	2
Miscellaneous.	3	establishments.														
Bookkeepers	1			1												1
Bookkeepers (F.)	2		2											1		1
Electricians	1			1												1
Electricians, helpers	2			2						1	1					
Glaziers	2		2												2	
Machinists	6			6											5	1
Machinists, helpers	6			6									6			
Managers and foremen	4		1	3												4
Office clerks	2		2									1	1			
Office clerks (F.)	1		1								1					
Painters	13		12	1										1		12
Piano tuners	1		1													1
Porters and packers	6		1	5						1			5			
Salesmen	11		11										1	3	2	5
Stenographers (F.)	2	1	1								1		1			
Teamsters	1			1										1		
Totals	61	1	34	26						2	3	1	14	6	9	26

TABLE No. 22. CITY OF SACRAMENTO.

Miscellaneous Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Lumber and Shipping.	2	est	ablis	hmen	ts.											
Bookkeepers	3			3												3
Lumber hands	34			34									25	7	2	
Managers and foremen	3			3											1	2
Office clerks	1			1								1				
Salesmen	1			1												1
Stenographers (F.)	1		1												1	
Tallymen	6			6										2	4	
Teamsters	14			14										14		
Totals	63		1	62								1	25	23	8	6
Teaming, Livery and Storage.	4	est	ablis	hmen	ts.											
Bookkeepers	1		1											1		
Bookkeepers (F.)	1		1											1		
Delivery boys	3		1	1	1					2	1					
Delivery drivers	3				3								2	1		
Harness washers	2			1		1							1	1		
Hostlers	23				1	22						18	5			
Managers and foremen	4				1	3							2		1	1
Teamsters	8				8									8		
Wagon and buggy washers	5			1		4							3	2		
Totals	50		3	3	14	30				2	1	18	13	14	1	1

TABLE No. 23. CITY OF SACRAMENTO.

Summary of All Establishments. Hours of Labor and Wages. (Tabulated by industry.)

INDUSTRY.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing:																
Bakery products	116		26	63	24	1	2			17	22	16	6	17	22	16
Brick	122				122							17	69	30	2	4
Carriages and wagons	59		1	58					1	1	6	8	5	12	15	11
Cigars and cigarettes	46		45	1						11	4	1		14	15	1
Confectionery	90		49	41					28	13	16	11	11	3	2	6
Clothing	51		33	18					6	10	5	4			16	10
Extracts, spices, etc.	16		9	7					2	1	2	4		3	2	2
Electrical goods and supplies	64		55	9					5	7		2	3	6		41
Flouring mill products	39			39									16	9	8	6
Harness and saddlery	82		4	78					1	4	4	6	10	23	13	21
Ice	19		10		8		1						1	9	5	4
Laundries, hand	28		12	4	12			1	1	4	17	4	1			
Laundries, steam	265		259	6						42	86	46	51	23	10	7
Liquors, malt	234		196	1	36		1			7	3	4	3	85	53	79
Lumber and milling	108		89	18	1					1	3	23	23	8	37	13
Machinery and foundries	131		48	83					3	5	2	24	34	13	45	5
Newspapers	244		244					2	7	7	33	7	20	15	45	108
Photographs	16		13	3					2		1	1	1	1	4	6
Printing and bookbinding	156	1	143	12				2	11	18	9	12	14	6	36	48
Restaurants	52		21	4	16	2	9			15	19	4	10	3		1
Slaughtering and meat packing	15				15				3	2	1	7		2		
Tinware, sheet metal, etc.	34		30		4					1	6		3	3	1	20
Wineries	90	8	66	9	6		1			2	3	42	15	7	3	18
Miscellaneous	55	1	23	18	11	2				3	4	6	18	10	8	6
Totals	2132	10	1376	472	255	5	14	5	70	171	246	249	314	302	342	433
Wholesale:																
Commission merchants	150		41	81	28					2	2	2	49	39	13	43
Drugs	71		55	9	7					8	8	10	6	8	8	23
Groceries	109		10	96	3					4	3	4	47	9	10	32
Harware	96		25	71					1	14	8	10	13	11	11	28

Plumbing supplies	45	------	45	------	------	------	------	------	------	4	7	3	13	7	------	11
Miscellaneous	130	1	68	61	------	------	------	------	------	11	24	19	15	13	17	31
Totals	601	1	244	318	38	------	------	------	1	43	52	48	143	87	59	168
Retail:																
Butcher shops	78	1	5	1	71	------	------	------	1	1	8	4	12	38	9	5
Clothing	110	------	80	27	------	------	3	1	------	15	18	6	18	12	11	29
Confectionery	58	22	23	9	2	2	------	------	------	19	16	6	6	4	2	5
Department stores	961	1	959	------	1	------	------	21	190	270	137	77	74	48	27	117
Drug stores	86	6	14	25	41	------	------	3	14	12	5	3	4	10	8	27
Furniture	246	------	152	93	------	------	1	------	9	31	27	27	37	30	32	53
General merchandise	73	------	8	8	57	------	------	------	------	------	2	6	8	46	9	2
Groceries	40	------	5	2	33	------	------	------	------	------	10	1	13	7	5	4
Hardware	65	------	39	26	------	------	------	------	------	1	1	6	22	5	9	21
Jewelry	10	1	5	4	------	------	------	------	------	3	------	------	2	------	1	4
Millinery	17	------	15	2	------	------	------	4	3	2	5	------	1	1	------	1
Stationery	11	------	3	8	------	------	------	------	------	2	1	------	3	2	1	2
Miscellaneous	61	1	34	26	------	------	------	------	------	2	3	1	14	6	9	26
Totals	1816	32	1342	231	205	2	4	29	217	358	233	137	214	209	123	296
Miscellaneous:																
Lumber and shipping	63	------	1	62	------	------	------	------	------	------	------	1	25	23	8	6
Teaming, livery, and storage	50	------	3	3	14	30	------	------	------	2	1	18	13	14	1	1
Totals	113	------	4	65	14	30	------	------	------	2	1	19	38	37	9	7
Recapitulation:																
Manufacturing	2132	10	1376	472	255	5	14	5	70	171	246	249	314	302	342	433
Wholesale	601	1	244	318	38	------	------	------	1	43	52	48	143	87	59	168
Retail	1816	32	1342	231	205	2	4	29	217	358	233	137	214	209	123	296
Miscellaneous	113	------	4	65	14	30	------	------	------	2	1	19	38	37	9	7
Grand totals	4662	43	2966	1086	512	37	18	34	288	574	532	453	709	635	533	904
Total males	3327	19	1655	1086	512	37	18	11	74	169	193	307	603	591	511	868
Total females	1335	24	1311	------	------	------	------	23	214	405	339	146	106	44	22	36

TABLE No. 24. CITY OF SACRAMENTO.

Female Employees. Hours of Labor and Wages. (Tabulated by industry.)

INDUSTRY.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing:																
Bakery products	26	------	26	------	------	------	------	------	------	17	9	------	------	------	------	------
Carriages and wagons	1	------	1	------	------	------	------	------	------	------	------	1	------	------	------	------
Cigars and cigarettes	13	------	13	------	------	------	------	------	------	10	3	------	------	------	------	------
Confectionery	49	------	49	------	------	------	------	------	27	12	5	4	------	1	------	------
Clothing	23	------	23	------	------	------	------	------	5	9	5	4	------	------	------	------
Extracts, spices, etc.	6	------	6	------	------	------	------	------	2	1	1	1	------	------	1	------
Electrical goods and supplies	4	------	4	------	------	------	------	------	1	1	------	1	1	------	------	------
Harness and saddlery	4	------	4	------	------	------	------	------	------	------	2	------	------	2	------	------
Ice	1	------	1	------	------	------	------	------	------	------	------	------	------	------	------	1
Laundries, hand	11	------	11	------	------	------	------	------	1	1	7	2	------	------	------	------
Laundries, steam	163	------	163	------	------	------	------	------	------	41	82	29	6	3	1	1
Liquors, malt	1	------	1	------	------	------	------	------	------	------	------	------	------	1	------	------
Lumber and milling	5	------	5	------	------	------	------	------	------	------	2	1	2	------	------	------
Newspapers	15	------	15	------	------	------	------	------	------	1	1	3	9	------	------	1
Photographs	2	------	2	------	------	------	------	------	------	------	1	1	------	------	------	------
Printing and bookbinding	22	------	22	------	------	------	------	------	3	7	5	2	4	------	1	------
Restaurants	21	------	21	------	------	------	------	------	------	14	6	1	------	------	------	------
Tinware, sheet metal, etc.	2	------	2	------	------	------	------	------	------	1	------	------	------	1	------	------
Wineries	8	3	5	------	------	------	------	------	------	2	2	1	------	2	------	1
Miscellaneous	9	------	9	------	------	------	------	------	------	1	4	3	1	------	------	------
Totals	386	3	383	------	------	------	------	------	39	118	135	54	23	10	3	4
Wholesale:																
Commission merchants	10	------	10	------	------	------	------	------	------	------	2	1	5	1	1	------
Drugs	14	------	14	------	------	------	------	------	------	3	5	1	4	1	------	------
Groceries	10	------	10	------	------	------	------	------	------	4	1	1	2	1	1	------
Hardware	17	------	17	------	------	------	------	------	------	5	4	4	3	1	------	------
Plumbing supplies	9	------	9	------	------	------	------	------	------	------	1	2	4	2	------	------
Miscellaneous	21	1	20	------	------	------	------	------	------	3	12	4	2	------	------	------
Totals	81	1	80	------	------	------	------	------	------	15	25	13	20	6	2	------

Retail:																
Butcher shops	4	------	4	------	------	------	------	------	------	------	3	1	------	------	------	------
Clothing	60	------	60	------	------	------	------	1	------	9	18	5	12	4	4	7
Confectionery	41	18	23	------	------	------	------	------	------	19	15	4	2	1	------	------
Department stores	655	1	654	------	------	------	------	18	167	223	107	57	37	16	10	20
Drug stores	5	------	5	------	------	------	------	------	------	1	1	1	2	------	------	------
Furniture	57	------	57	------	------	------	------	------	5	19	20	5	2	2	2	2
General merchandise	8	------	8	------	------	------	------	------	------	------	2	4	2	------	------	------
Groceries	5	------	5	------	------	------	------	------	------	------	4	------	------	1	------	------
Hardware	7	------	7	------	------	------	------	------	------	------	1	2	3	1	------	------
Jewelry	1	------	1	------	------	------	------	------	------	------	------	------	1	------	------	------
Millinery	15	------	15	------	------	------	------	4	3	1	5	------	------	1	------	1
Stationery	3	------	3	------	------	------	------	------	------	------	1	------	1	------	------	1
Miscellaneous	5	1	4	------	------	------	------	------	------	------	2	------	1	1	------	1
Totals	866	20	846	------	------	------	------	23	175	272	179	79	63	27	16	32
Miscellaneous:																
Lumber and shipping	1	------	1	------	------	------	------	------	------	------	------	------	------	------	1	------
Teaming, livery and storage	1	------	1	------	------	------	------	------	------	------	------	------	------	1	------	------
Totals	2	------	2	------	------	------	------	------	------	------	------	------	------	1	1	------
Recapitulation:																
Manufacturing	386	3	383	------	------	------	------	------	39	118	135	54	23	10	3	4
Wholesale	81	1	80	------	------	------	------	------	------	15	25	13	20	6	2	------
Retail	866	20	846	------	------	------	------	23	175	272	179	79	63	27	16	32
Miscellaneous	2	------	2	------	------	------	------	------	------	------	------	------	------	1	1	------
Totals	1335	24	1311	------	------	------	------	23	214	405	339	146	106	44	22	36

TABLE No. 25. CITY OF SAN JOSE.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Bakery Products.	4	establishments.														
Manufacturing:																
Bakers	26			16	10								6	13		7
Bakers, apprentices	3			3								3				
Bakers, helpers	11			7	4							5		5	1	
Candy makers	3				3						1			1		1
Cooks (F.)	1		1							1						
Drivers	7				7					3			4			
Managers and foremen	1			1												1
Porters and packers	1				1					1						
Stablemen	2			1			1					1	1			
General help	1			1							1					
Clerical:																
Bookkeepers (F.)	1		1							1						
Errand boys	2				2					2						
Office clerks	1				1								1			
Saleswomen	13	6	7						4	9						
Shipping clerks	1			1								1				
Totals	74	6	9	30	28		1		4	17	2	10	12	19	1	9
Brick, Pottery, etc.	2	establishments.														
Manufacturing:																
Managers and foremen	4			4												4
General help	25			25								13	12			
Clerical:																
Bookkeepers	2		1	1										2		
Totals	31		1	30								13	12	2		4
Dairy Products.	2	establishments.														
Manufacturing:																
Butter makers	2			1			1									2

Can washers	2			1	1					1			1			
Drivers	6				6						3	2		1		
Managers and foremen	1				1											1
Packers (F.)	1		1						1							
General help	5				5						3	1				1
Clerical:																
Office clerks	4				3	1								2	1	1
Stenographers (F.)	1		1							1						
Totals	22		2	2	16	1	1		1	2	6	3	1	3	1	5
Dyeing and Cleaning.	3	establishments.														
Manufacturing:																
Cleaners	5			5								3	1			1
Drivers	8		2	6										8		
Dyers	3		1	2											1	2
Engineers	1			1									1			
Managers and foremen	4			4												4
Pressers	6		1	5								2		3	1	
Pressers (F.)	7		7								3	4				
Seamstresses	3		3							2	1					
Stablemen	1			1								1				
Clerical:																
Bookkeepers	1			1										1		
Bookkeepers (F.)	1		1									1				
Office clerks (F.)	1		1								1					
Stenographers (F.)	1		1								1					
Totals	42		17	25						2	6	11	2	12	2	7
Garages and Repair Shops.	3	establishments.														
Manufacturing:																
Garage help	6		1		5				1		1	2	1		1	
Managers and foremen	7		4		3									2	1	4
Mechanics	15		15							1	2	4	2	3	2	1
Clerical:																
Bookkeepers (F.)	2		2									2				
Salesmen	2		1		1										2	
Stenographers (F.)	1		1							1						
Stock clerks	1		1												1	
Totals	34		25		9				1	2	3	8	3	5	7	5

TABLE No. 25. CITY OF SAN JOSE.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Laundries.	5	establishments.														
Manufacturing:																
Drivers	26			26									4	1	18	3
Engineers	4			4										1	3	
Ironers, hand	1			1								1				
Ironers, hand (F.)	28		28								17	11				
Ironers, machine	1			1								1				
Ironers, machine (F.)	20		20							5	14	1				
Managers and foremen	9			9									2	1		6
Manglers	2			2						2						
Manglers (F.)	30		30							20	9	1				
Markers and distributors	13			13							2		6	4		1
Markers and distributors (F.)	2		2							1				1		
Shirt finishers	2			2								2				
Shirt folders (F.)	4		4							3	1					
Starchers	6			6								5	1			
Washroom hands	11			11								4	4	3		
General help	3			3					1		1	1				
General help (F.)	7		7							6		1				
Clerical:																
Bookkeepers	1			1								1				
Bookkeepers (F.)	3		3								2	1				
Office clerks	2		1	1					1							1
Totals	175		95	80					2	37	46	30	17	11	21	11
Liquors, Malt.	2	establishments.														
Manufacturing:																
Brewers	9		9												9	
Brewers, apprentices	1		1									1				
Brewmasters	2		1	1												2
Cellarmen	8		8												7	1
Coopers	5		5												4	1
Drivers, bottle	1			1											1	

Drivers, keg	2		1	1												2
Engineers	6		6												1	5
Machinists	3		3											2	1	
Maltsters	13		13											3	9	1
Managers and foremen	2		2													2
Stablemen	3		1		2									1	2	
Watchmen	1						1								1	
Clerical:																
Bookkeepers	2		1		1									1		1
Office clerks	1		1											1		
Totals	59		52	3	3		1					1		8	35	15
Lumber and Milling.	3	establishments.														
Manufacturing:																
Bench hands	12		12										1		1	10
Bench hands, apprentices	2		2								1		1			
Box factory help	23			23						9	6	8				
Draughtsmen	1		1													1
Engineers	3			3										1		2
Firemen	1			1								1				
Glaziers	2		1	1											2	
Lumber hands	30			30								15	7	7	1	
Managers and foremen	7		4	3											1	6
Mill hands	15		8	7						8	1		6			
Millwrights	1			1												1
Planers	2		2								1					1
Sanders	2		1	1											2	
Sash and door makers	3		1	2							1					2
Saw filers	1			1												1
Sawyers	8		7	1									4	2	1	1
Stickers	4		2	2						1					1	2
Teamsters	11			11								1	6	4		
Clerical:																
Bookkeepers	1		1													1
Office clerks	3		1	2											1	2
Shipping clerks	3			3								2		1		
Stenographers (F.)	2		2							1						1
Totals	137		45	92						19	10	27	25	15	10	31

TABLE No. 25. CITY OF SAN JOSE.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Machinery.	2	establishments.														
Manufacturing:																
Assemblers	12		12								1	3	4	3	1	
Blacksmiths	3		3											3		
Blacksmiths, apprentices	1		1							1						
Blacksmiths, helpers	2		2								1	1				
Boiler makers	1		1											1		
Casting chippers	1		1									1				
Core makers	3		3							2			1			
Cupolamen	2		2										2			
Draughtsmen	1		1									1				
Foundry helpers	4		4							1	1	2				
Machinists	28		28										4	15	8	1
Machinists, apprentices	8		8							3	2	3				
Machinists, helpers	2		2									2				
Managers and foremen	8		8													8
Mechanics	4		4										4			
Molders	10		10								2			5	3	
Molders, apprentices	2		2								1	1				
Molders, helpers	1		1									1				
Pattern makers	1		1													1
Pattern makers, apprentices	2		2										2			
Pump makers	3		3												3	
Clerical:																
Bookkeepers	2		2											1	1	
Errand boys	2		2					1		1						
Office clerks	3		3											1	1	1
Salesmen	5		5													5
Shipping clerks	1		1											1		
Stenographers (F.)	1		1								1					
Stock clerks	4		4							1		2		1		
Totals	117		117					1		9	9	17	17	31	17	16

Printing and Newspapers.	3	establishments.														
Manufacturing:																
Bindery girls	2	------	2	------	------	------	------	------	------	2	------	------	------	------	------	------
Bookbinders	3	------	3	------	------	------	------	------	------	------	------	------	------	------	3	------
Bookbinders, apprentices	1	------	1	------	------	------	------	------	------	1	------	------	------	------	------	------
Carriers	21	21	------	------	------	------	------	21	------	------	------	------	------	------	------	------
Compositors	9	------	9	------	------	------	------	------	------	------	------	------	------	------	------	9
Compositors (F.)	1	------	1	------	------	------	------	------	------	------	------	------	------	------	------	1
Compositors, apprentices	3	1	2	------	------	------	------	------	------	1	------	------	1	------	1	------
Linotype operators	17	------	17	------	------	------	------	------	------	------	------	------	------	------	------	17
Linotype operators, apprentices	1	------	1	------	------	------	------	------	------	1	------	------	------	------	------	------
Lithographers	5	------	5	------	------	------	------	------	------	------	------	------	------	------	------	5
Lithographers, apprentices	1	------	1	------	------	------	------	------	------	------	------	1	------	------	------	------
Mailing room help	2	------	2	------	------	------	------	------	------	------	------	------	2	------	------	------
Managers and foremen	9	------	9	------	------	------	------	------	------	------	------	------	------	------	------	9
Pressmen	8	------	8	------	------	------	------	------	------	------	------	------	------	------	------	8
Pressmen, apprentices	1	------	1	------	------	------	------	------	------	------	------	------	1	------	------	------
Proofreaders	3	------	3	------	------	------	------	------	------	------	------	1	------	------	------	2
Proofreaders (F.)	2	------	2	------	------	------	------	------	------	------	1	------	1	------	------	------
Reporters and editors	17	------	17	------	------	------	------	------	------	------	------	4	2	2	6	3
Reporters and editors (F.)	2	------	2	------	------	------	------	------	------	------	------	------	------	2	------	------
Clerical:																
Bookkeepers	1	------	1	------	------	------	------	------	------	------	------	------	------	------	------	1
Bookkeepers (F.)	4	------	4	------	------	------	------	------	------	------	------	1	------	2	------	1
Collectors	5	------	5	------	------	------	------	------	------	------	------	------	------	------	1	4
Office clerks	4	------	4	------	------	------	------	------	1	------	2	------	1	------	------	------
Solicitors	8	------	8	------	------	------	------	------	------	------	------	------	------	3	4	1
Telephone girls	2	------	2	------	------	------	------	------	------	------	------	------	------	------	2	------
Totals	132	22	110	------	------	------	------	21	1	5	3	7	8	9	17	61
Restaurants.	3	establishments.														
Manufacturing:																
Bakers (F.)	1	------	1	------	------	------	------	------	------	1	------	------	------	------	------	------
Cooks	2	------	------	------	------	2	------	------	------	------	------	1	------	1	------	------
Kitchen help	8	------	------	------	4	4	------	------	------	7	1	------	------	------	------	------
Kitchen help (F.)	9	------	9	------	------	------	------	------	------	------	6	3	------	------	------	------
Managers and foremen	2	------	------	------	2	------	------	------	------	------	------	1	1	------	------	------
Managers and forewomen	2	------	2	------	------	------	------	------	------	------	------	2	------	------	------	------
Waiters	7	------	------	------	7	------	------	------	------	------	6	1	------	------	------	------
Waitresses	27	------	27	------	------	------	------	------	------	22	5	------	------	------	------	------
Totals	58	------	39	------	13	6	------	------	------	30	18	8	1	1	------	------

TABLE No. 25. CITY OF SAN JOSE.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Wooden Boxes and Baskets.	2	establishments.														
Manufacturing:																
Carpenters	6		6											5	1	
Lumber hands	5				5								5			
Managers and foremen	2		1		1											2
Clerical:																
Bookkeepers	1				1									1		
Totals	14		7		7								5	6	1	2
Miscellaneous.	6	establishments.														
Manufacturing:																
Bakers	7				7							7				
Coppersmiths	1			1												1
Engineers	4				4							4				
Glove cutters	4			4									2	2		
Glove makers (F.)	8		8							4	4					
Managers and foremen	6		3	1	2										1	5
Photographers	2			2							1				1	
Plumbers	6		6													6
Sheet metal workers	3			3									3			
Sheet metal workers, apprentices	2			2						2						
Teamsters	3			2	1									3		
Tinners	2		2													2
Tinners, apprentices	3		3								3					
General help	1				1										1	

Clerical:																
Bookkeepers	2			2										1		1
Bookkeepers (F.)	2	2									2					
Cashiers (F.)	1		1								1					
Errand boys	1				1				1							
Salesmen	4			4									1	2	1	
Saleswomen	6		6							3	2			1		
Stenographers (F.)	1		1										1			
Totals	69	2	30	21	16				1	9	13	11	7	9	4	15

TABLE No. 26. CITY OF SAN JOSE.

Wholesale Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Groceries.	2	establishments.														
Bookkeepers	3			3							1				2	
Bookkeepers (F.)	1		1										1			
Cashiers	1			1												1
Managers and foremen	1				1											1
Office clerks	3			3										2		1
Porters and packers	10				10								10			
Salesmen	7				7											7
Stenographers (F.)	2		2								1	1				
Teamsters	6				6								4	2		
Totals	34		3	7	24						2	1	15	4	2	10
Machinery, Implements, etc.	2	establishments.														
Bookkeepers	1				1								1			
Bookkeepers (F.)	1		1								1					
Machinists	2			2											2	
Managers and foremen	2			1	1										1	1
Salesmen	7				7									7		
Teamsters	3			3										3		
General help	1			1									1			
Totals	17		1	7	9						1		2	10	3	1
Miscellaneous.	3	establishments.														
Bookkeepers	1				1									1		
Cashiers	2		1	1								1				1
Managers and foremen	2		1	1												2
Office clerks	2		2											2		
Salesmen	7		2	3	2									2	4	1
Teamsters	2				2								1	1		
Warehousemen	2			2									2			
Totals	18		6	7	5							1	3	6	4	4

TABLE No. 27. CITY OF SAN JOSE.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Butcher Shops.	2	establishments.														
Bookkeepers	2						2							2		
Cashiers (F.)	1		1									1				
Errand boys	3			3						1	2					
Managers and foremen	1				1											1
Meat cutters	13				8		5							12	1	
Sausage makers	2						2						1		1	
Teamsters	3				3							3				
Totals	25		1	3	12		9			1	2	4	1	14	2	1
Confectionery.	2	establishments.														
Candy makers	2			2									1	1		
Chocolate dippers (F.)	1		1								1					
Errand boys	1		1							1						
Ice cream makers	2			2							1	1				
Saleswomen	8		8							4	4					
Totals	14		10	4						5	6	1	1	1		
Clothing.	10	establishments.														
Alteration hands (F.)	43		43						1	6	30	2		1		3
Bookkeepers (F.)	6		6							1	2		1	1		1
Cashiers (F.)	1		1								1					
Collectors	4		2	2							3					1
Errand boys	4		2	2						4						
Managers and foremen	3			3											1	2
Millinery workers (F.)	4		4						1		1					2
Porters and packers	4		2	2						1	2	1				
Salesmen	16			16						2	1			4	3	6
Saleswomen	37		37						1	3	13	8	7	2	3	
Tailors	6			6									1		2	3
Totals	128		97	31					3	17	53	11	9	8	9	18

TABLE No. 27. CITY OF SAN JOSE.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Department Stores.	2	establishments.														
Alteration hands (F.)	3		3								3					
Bookkeepers (F.)	2		2									1			1	
Cashiers (F.)	2		2							2						
Errand boys	2		2							1		1				
Managers and foremen	2		2													2
Office clerks	1		1							1						
Office clerks (F.)	1		1							1						
Porters and packers	1		1									1				
Salesmen	18		18										11	1	6	
Saleswomen	34		34						16			18				
Stenographers (F.)	1		1								1					
Stock clerks	3		3								2	1				
Tailors	1		1									1				
Totals	71		71						16	5	6	23	11	1	7	2
Dry Goods.	5	establishments.														
Alteration hands (F.)	13		13								8		4			1
Bookkeepers	3		3											1		2
Bookkeepers (F.)	6		6								2	1	2	1		
Buyers	2		2													2
Cashiers (F.)	9		9							3	4	1		1		
Collectors	2		1	1						1				1		
Errand boys	6		4	2					1	3	2					
Managers and foremen	11		9	2												11
Office clerks	1		1										1			
Office clerks (F.)	6		6							5		1				
Porters and packers	5		5							1		3	1			
Salesmen	38		33	5								6	1	10	4	17
Saleswomen	137		137						5	64	28	29	8	3		
Shipping clerks	2		2								1		1			
Stenographers (F.)	2		2								1			1		
Stock clerks	4		4							4						
Totals	247		237	10					6	81	46	41	18	18	4	33

Furniture.	4	est	ablis	hmen	ts.											
Bookkeepers	3		2	1												3
Bookkeepers (F.)	3		3										2	1		
Cabinet makers	4		4											4		
Carpet layers	9		9										4	1	2	2
Cashiers (F.)	2		2								2					
Collectors	2		1	1										1		1
Errand boys	1			1						1						
Finishers	2		2												2	
Managers and foremen	3		1	2											1	2
Porters and packers	6		4	2									6			
Salesmen	20		12	8									2	1	5	12
Seamstresses	2		2								1	1				
Shipping clerks	2		1	1										2		
Stock clerks	1			1									1			
Teamsters	3		2	1									2	1		
Upholsterers	2		2												2	
General help	2			2									2			
Totals	67		47	20						1	3	1	19	11	12	20
Groceries.	4	est	ablis	hmen	ts.											
Bookkeepers	2				2									1		1
Bookkeepers (F.)	1		1									1				
Cashiers (F.)	2		2								1	1				
Managers and foremen	4				4										1	3
Porters and packers	16				16						1		7	8		
Salesmen	12				12						5	2	4			1
Totals	37		3		34						7	4	11	9	1	5
Paints, Oils, etc.	2	est	ablis	hmen	ts.											
Bookkeepers (F.)	2		2									1	1			
Glaziers	1		1												1	
Managers and foremen	1				1											1
Paint grinders	1		1													1
Salesmen	5			2	3								3	1	1	
Totals	10		4	2	4							1	4	1	2	2
Miscellaneous.	8	est	ablis	hmen	ts.											
Bookkeepers	7			3	4								2	2		3
Bookkeepers (F.)	4		4									1	3			
Cashiers	1				1											1

TABLE No. 27. CITY OF SAN JOSE.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Miscellaneous—Continued.																
Cashiers (F.)	3		3								1	1	1			
Electricians	2		2										1			1
Engineers	1				1								1			
Errand boys	3	1		2					2	1						
Fixturemen, gas and electric	6			6								1	2		2	1
Jewelers	2			2										1		1
Machinists	3		3												3	
Machinists, helpers	3		3							2		1				
Managers and foremen	10		1	3	6											10
Plumbers	4		4								1					3
Salesmen	41			18	23					4	3	1	8	14	4	7
Saleswomen	7		7							1	5	1				
Shipping clerks	2			1	1							1	1			
Stenographers (F.)	1		1								1					
Stock clerks	1				1									1		
Teamsters	3				3							3				
Tinners	4		4							1					3	
General help	19		1	3	15					2		7	8	1		1
General help (F.)	2		2								2					
Totals	129	1	35	38	55				2	11	13	17	27	19	12	28

TABLE No. 28. CITY OF SAN JOSE.

Miscellaneous Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Feed and Fuel.	5	establishments.														
Bookkeepers	3			2	1										1	2
Bookkeepers (F.)	2		2							1				1		
Errand boys	1			1							1					
Managers and foremen	5			1	4									1		4
Office clerks	1				1								1			
Office clerks (F.)	1		1							1						
Porters and packers	5			1	4						4		1			
Salesmen	1				1											1
Stenographers (F.)	1		1									1				
Teamsters	13			1	12							4	8	1		
Totals	33		4	6	23					2	5	5	10	3	1	7
Teaming, Livery and Storage.	3	establishments.														
Bookkeepers	2				2											2
Bookkeepers (F.)	1		1									1				
Hack drivers	6						6					6				
Horseshoers	2		2													2
Managers and foremen	4				4									1		3
Office clerks	4				4								4			
Stablemen	13				1		12					8	3	2		
Teamsters	34				34									27	7	
Warehousemen	2				2								2			
Totals	68		3		47		18					15	9	30	7	7

TABLE No. 29. CITY OF SAN JOSE.

Summary of All Establishments. Hours of Labor and Wages. (Tabulated by industry.)

INDUSTRY.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing:																
Bakery products	74	6	9	30	28	------	1	------	4	17	2	10	12	19	1	9
Brick, pottery, etc.	31	------	1	30	------	------	------	------	------	------	------	13	12	2	------	4
Dairy products	22	------	2	2	16	1	1	------	1	2	6	3	1	3	1	5
Dyeing and cleaning	42	------	17	25	------	------	------	------	------	2	6	11	2	12	2	7
Garages and repair shops	34	------	25	------	9	------	------	------	1	2	3	8	3	5	7	5
Laundries	175	------	95	80	------	------	------	------	2	37	46	30	17	11	21	11
Liquors, malt	59	------	52	3	3	------	1	------	------	------	------	1	------	8	35	15
Lumber and milling	137	------	45	92	------	------	------	------	------	19	10	27	25	15	10	31
Machinery	117	------	117	------	------	------	------	1	------	9	9	17	17	31	17	16
Printing and newspapers	132	22	110	------	------	------	------	21	1	5	3	7	8	9	17	61
Restaurants	58	------	39	------	13	6	------	------	------	30	18	8	1	1	------	------
Wooden boxes and baskets	14	------	7	------	7	------	------	------	------	------	------	------	5	6	1	2
Miscellaneous	69	2	30	21	16	------	------	------	1	9	13	11	7	9	4	15
Totals	964	30	549	283	92	7	3	22	10	132	116	146	110	131	116	181
Wholesale:																
Groceries	34	------	3	7	24	------	------	------	------	------	2	1	15	4	2	10
Machinery, implements, etc.	17	------	1	7	9	------	------	------	------	------	1	------	2	10	3	1
Miscellaneous	18	------	6	7	5	------	------	------	------	------	------	1	3	6	4	4
Totals	69	------	10	21	38	------	------	------	------	------	3	2	20	20	9	15
Retail:																
Butcher shops	25	------	1	3	12	------	9	------	------	1	2	4	1	14	2	1
Confectionery	14	------	10	4	------	------	------	------	------	5	6	1	1	1	------	------
Clothing	128	------	97	31	------	------	------	------	3	17	53	11	9	8	9	18
Department stores	71	------	71	------	------	------	------	------	16	5	6	23	11	1	7	2
Dry goods	247	------	237	10	------	------	------	------	6	81	46	41	18	18	4	33
Furniture	67	------	47	20	------	------	------	------	------	1	3	1	19	11	12	20
Groceries	37	------	3	------	34	------	------	------	------	------	7	4	11	9	1	5
Paints, oils, etc.	10	------	4	2	4	------	------	------	------	------	------	1	4	1	2	2
Miscellaneous	129	1	35	38	55	------	------	------	2	11	13	17	27	19	12	28
Totals	728	1	505	108	105	------	9	------	27	121	136	103	101	82	49	109

Miscellaneous:																
Feed and fuel	33	------	4	6	23	------	------	------	------	2	5	5	10	3	1	7
Teaming, livery and storage	68	------	3	------	47	------	18	------	------	------	------	15	9	30	7	7
Totals	101	------	7	6	70	------	18	------	------	2	5	20	19	33	8	14
Recapitulation:																
Manufacturing	964	30	549	283	92	7	3	22	10	132	116	146	110	131	116	181
Wholesale	69	------	10	21	38	------	------	------	------	------	3	2	20	20	9	15
Retail	728	1	505	108	105	------	9	------	27	121	136	103	101	82	49	109
Miscellaneous	101	------	7	6	70	------	18	------	------	2	5	20	19	33	8	14
Grand totals	1862	31	1071	418	305	7	30	22	37	255	260	271	250	266	182	319
Total males	1308	23	525	418	305	7	30	22	24	64	75	171	218	248	176	310
Total females	554	8	546	------	------	------	------	------	13	191	185	100	32	18	6	9

TABLE No. 30. CITY OF SAN JOSE.

Female Employees. Hours of Labor and Wages. (Tabulated by industry.)

INDUSTRY.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing:																
Bakery products	15	6	9						4	11						
Dairy products	2		2						1	1						
Dyeing and cleaning	13		13							2	6	5				
Garages and repair shops	3		3							1		2				
Laundries	94		94							35	43	15		1		
Lumber and milling	2		2							1						1
Machinery	1		1								1					
Printing and newspapers	13		13							3	1	1	1	4	2	1
Restaurants	39		39							23	11	5				
Miscellaneous	18	2	16							7	9		1	1		
Totals	200	8	192						5	84	71	28	2	6	2	2
Wholesale:																
Groceries	3		3								1	1	1			
Machinery, implements, etc.	1		1								1					
Totals	4		4								2	1	1			
Retail:																
Butcher shops	1		1									1				
Confectionery	9		9							4	5					
Clothing	91		91						3	10	47	10	8	4	3	6
Department stores	43		43							19	4	19			1	
Dry goods	173		173						5	72	43	32	14	6		1
Furniture	7		7								3	1	2	1		
Groceries	3		3								1	2				
Paints, oils, etc.	2		2									1	1			
Miscellaneous	17		17							1	9	3	4			
Totals	346		346						8	106	112	69	29	11	4	7

Miscellaneous:																
Feed and fuel	3	------	3	------	------	------	------	------	------	1	------	1	------	1	------	------
Teaming, livery and storage	1	------	1	------	------	------	------	------	------	------	------	1	------	------	------	------
Totals	4	------	4	------	------	------	------	------	------	1	------	2	------	1	------	------
Recapitulation:																
Manufacturing	200	8	192	------	------	------	------	------	5	84	71	28	2	6	2	2
Wholesale	4	------	4	------	------	------	------	------	------	------	2	1	1	------	------	------
Retail	346	------	346	------	------	------	------	------	8	106	112	69	29	11	4	7
Miscellaneous	4	------	4	------	------	------	------	------	------	1	------	2	------	1	------	------
Grand totals	554	8	546	------	------	------	------	------	13	191	185	100	32	18	6	9

TABLE NO. 31. CITY OF STOCKTON.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Bakery Products.	1	establishment.														
Manufacturing:																
Bakers	15			15										12	1	2
Bakers, helpers	5			5								1	4			
Drivers	11			11									3	8		
Stablemen	2					2				1						1
Clerical:																
Bookkeepers	2			2												2
Errand boys	2	2							2							
Office clerks	2			2							1			1		
Saleswomen	5		5								5					
Shipping clerks	2			2							1				1	
Totals	46	2	5	37		2			2	1	7	1	7	21	2	5
Clothing.	2	establishments.														
Manufacturing:																
Bushelmen	1			1											1	
Cutters	1			1												1
Tailors	10			10										6	4	
Clerical:																
Bookkeepers (F.)	1		1									1				
Salesmen	3			3									1			2
Stock clerks	1			1							1					
Totals	17		1	16							1	1	1	6	5	3
Engines, Boilers and Tanks.	3	establishments.														
Manufacturing:																
Blacksmiths	2			2										1	1	
Casting chippers	5			5										5		
Core makers	4			4											3	1
Core makers, apprentices	3			3						1	1		1			

Core makers, helpers	1			1									1			
Cupolamen	2			2									1			1
Draughtsmen	3		2	1											2	1
Draughtsmen, apprentices	1		1							1						
Engineers	1			1									1			
Foundry helpers	2			2									2			
Installers	3			3											2	1
Machine hands	53			53									8	9	35	1
Machinists	53		7	46									7	10	31	5
Machinists, apprentices	38		1	37						35	3					
Machinists, helpers	11		3	8					1	1		5	3	1		
Managers and foremen	10		2	8												10
Mechanics	4			4									1	1	2	
Millwrights	1			1										1		
Molders	15			15											5	10
Molders, apprentices	2			2						1		1				
Molders, helpers	2			2								2				
Pattern makers	3			3									1			2
Pattern makers, apprentices	2			2							1	1				
Teamsters	2			2								1			1	
Watchmen	1				1								1			
General help	5			5								1	3	1		
Clerical:																
Bookkeepers	4		1	3												4
Office clerks	6			6								1		2	1	2
Salesmen	4			4												4
Shipping clerks	2			2									1			1
Stenographers	1			1								1				
Stenographers (F.)	3		3								2			1		
Totals	249		20	228	1				1	39	7	13	31	32	83	43
Flouring Mill Products.	3	establishments.														
Manufacturing:																
Chemists	1		1													1
Engineers	4			1	1		2								1	3
Firemen	2				2										2	
Managers and foremen	10			4	6									3	2	5
Millers	15			2	13							1	1	3	6	4
Millwrights	5			5									1			4
Packers (F.)	18		18							18						
Porters and packers	26		1		22		3					5	5	14	2	
Teamsters	7				7								2	5		

TABLE NO. 31. CITY OF STOCKTON.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Warehousemen	53	------	------	21	32	------	------	------	------	------	------	------	------	53	------	------
General help	30	------	------	------	30	------	------	------	------	1	4	12	6	5	2	------
Clerical:																
Bookkeepers	5	------	1	2	2	------	------	------	------	------	------	------	1	------	1	3
Cashiers	1	------	------	1	------	------	------	------	------	------	------	------	------	------	------	1
Office clerks	9	------	9	------	------	------	------	------	------	1	------	------	2	------	------	6
Salesmen	4	------	4	------	------	------	------	------	------	------	------	------	------	------	------	4
Shipping clerks	2	------	------	2	------	------	------	------	------	------	------	------	------	------	------	2
Stenographers (F.)	5	------	5	------	------	------	------	------	------	------	------	1	3	------	------	1
Totals	197	------	39	38	115	------	5	------	------	20	4	19	21	83	16	34
Foundries and Structural Iron.	3	establishments.														
Manufacturing:																
Blacksmiths	2	------	------	2	------	------	------	------	------	------	------	------	------	------	2	------
Blacksmiths, helpers	5	------	------	5	------	------	------	------	------	------	------	------	5	------	------	------
Casting chippers	2	------	2	------	------	------	------	------	------	------	------	------	------	2	------	------
Core makers	8	------	8	------	------	------	------	------	------	------	------	------	------	------	8	------
Cupolamen	1	------	1	------	------	------	------	------	------	------	------	------	------	------	1	------
Foundry helpers	13	------	------	13	------	------	------	------	------	------	------	10	3	------	------	------
Molders	16	------	16	------	------	------	------	------	------	------	------	------	------	------	16	------
Molders, apprentices	5	------	5	------	------	------	------	------	3	1	------	------	1	------	------	------
Pattern makers	2	------	2	------	------	------	------	------	------	------	------	------	------	------	------	2
Pattern makers, apprentices	2	------	2	------	------	------	------	------	1	------	1	------	------	------	------	------
Structural iron workers	2	------	------	2	------	------	------	------	------	------	------	------	2	------	------	------
Structural iron workers, helpers	1	------	------	1	------	------	------	------	------	------	------	1	------	------	------	------
Teamsters	1	------	------	1	------	------	------	------	------	------	------	1	------	------	------	------
Totals	60	------	36	24	------	------	------	------	4	1	1	12	11	2	27	2
Hardware, Plumbing, etc.	3	establishments.														
Manufacturing:																
Blacksmiths	2	------	------	------	2	------	------	------	------	------	------	------	------	1	------	1
Blacksmiths, helpers	3	------	------	------	3	------	------	------	------	------	------	------	3	------	------	------

Managers and foremen	2		1		1											2
Mechanics	13		12		1					1	2			1	9	
Plumbers	5		5												4	1
Plumbers, apprentices	3		3							2		1				
Porters and packers	5				5								5			
Teamsters	2				2								2			
Sheet metal workers	5		5												5	
Clerical:																
Bookkeepers	4				4									1		3
Bookkeepers (F.)	2		2										1	1		
Cashiers (F.)	1		1							1						
Collectors	1				1											1
Errand boys	1				1								1			
Salesmen	13		3		10						2	1			4	6
Shipping clerks	2				2								2			
Stenographers (F.)	1		1											1		
Stock clerks	2				2								2			
Totals	67		33		34					4	4	2	16	5	22	14
Harness and Saddlery.	4	establishments.														
Manufacturing:																
Engineers	2			2											1	1
Firemen	2						2						2			
Leather workers	16		7	9							9		1	4	2	
Leather workers, apprentices	2			2						1	1					
Managers and foremen	2			2												2
Tanners	65			65							3	36	15	8	2	1
Clerical:																
Bookkeepers	1			1												1
Office clerks	1			1								1				
Office clerks (F.)	1		1											1		
Stenographers (F.)	1		1									1				
Totals	93		9	82			2			1	13	38	18	13	5	5
Laundries.	4	establishments.														
Manufacturing:																
Cleaners	1		1													1
Drivers	16		8	8										13	3	
Engineers	3		1	2											3	
Firemen	1		1											1		
Ironers, hand (F.)	50		50							18	28	4				
Ironers, machine	2		2											2		

TABLE NO. 31. CITY OF STOCKTON.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Laundries—Continued.																
Ironers, machine (F.)	30		30							14	6	9	1			
Managers and foremen	2		1	1												2
Manglers (F.)	40		40							35	5					
Markers and distributors	15		15										1	13	1	
Markers and distributors (F.)	2		2										2			
Shirt finishers (F.)	3		3								2	1				
Shirt folders (F.)	3		3								2	1				
Starchers	3		3										1	2		
Starchers (F.)	3		3								2		1			
Washroom hands	10		8	2								1	2	4	3	
Watchmen	1						1			1						
Clerical:																
Bookkeepers	1			1												1
Bookkeepers (F.)	2		2								1			1		
Office clerks	1			1									1			
Stenographers (F.)	2		2							1			1			
Totals	191		175	15			1			69	46	16	10	36	10	4
Liquors, Malt.	2	establishments.														
Manufacturing:																
Bottlers	18		18											16	2	
Bottlers, apprentices	1		1								1					
Brewers	11		11												11	
Brewmasters	1		1													1
Drivers, bottle	6		6												4	2
Drivers, keg	3		3												3	
Engineers	3		3													3
Firemen	1			1								1				
Managers and foremen	2		2													2
Mechanics	3		3											1	2	
Stablemen	1				1										1	
Clerical:																
Bookkeepers	2				2									1	1	
Office clerks	1				1									1		

Salesmen	2		2													2
Stenographers (F.)	1		1											1		
Totals	56		51	1	4						1	1		20	24	10
Lumber and Milling.	5	est	ablis	hmen	ts.											
Manufacturing:																
Bench hands	26		25	1											19	7
Bench hands, apprentices	2		2							1		1				
Glaziers	2		2									1				1
Lumber hands	6		3	3						1		3	2			
Managers and foremen	7		7											1		6
Mill hands	37		16	21						4	10	23				
Planers	9		9									2	1	1	5	
Sanders	2		2												2	
Sash and door makers	6		6												6	
Sawyers	11		9	2								1		3	6	1
Stair builders	3		3												3	
Stickers	7		7								1			1	2	3
Teamsters	5			5									2	3		
General help	10			10							2	3	2		3	
Clerical:																
Bookkeepers	1		1													1
Bookkeepers (F.)	2		2								1				1	
Office clerks	2		1	1											1	1
Salesmen	1			1												1
Stenographers	1		1									1				
Stenographers (F.)	2		2							2						
Totals	142		98	44						8	14	35	7	9	48	21
Machinery.	6	est	ablis	hmen	ts.											
Manufacturing:																
Blacksmiths	25		4	21									2	7	14	2
Blacksmiths, helpers	30		6	24								9	18	3		
Boilermakers	8		3	5									1	3	3	1
Boilermakers, apprentices	1		1								1					
Boilermakers, helpers	16		5	11								9	6	1		
Carpenters	16			16									7	7	2	
Casting chippers	4		4									1	1	1	1	
Coremakers	7		4	3						1	1			1	3	1
Cupolamen	2		2											1	1	
Draughtsmen	2		1	1											1	1
Draughtsmen, apprentices	2		2						1	1						

TABLE No. 31. CITY OF STOCKTON.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Machinery—Continued.																
Engineers	5	------	------	5	------	------	------	------	------	------	------	------	------	2	3	------
Engine erectors	66	------	------	66	------	------	------	------	------	------	------	40	13	12	1	------
Flaskmakers	1	------	1	------	------	------	------	------	------	------	------	------	1	------	------	------
Foundry helpers	23	------	7	16	------	------	------	------	------	------	------	14	9	------	------	------
Machine hands	18	------	------	18	------	------	------	------	------	------	------	1	11	6	------	------
Machinists	40	------	34	6	------	------	------	------	------	------	------	------	1	5	34	------
Machinists, apprentices	18	------	2	16	------	------	------	------	3	1	5	1	1	5	2	------
Machinists, helpers	15	------	5	10	------	------	------	------	1	1	4	3	5	1	------	------
Managers and foremen	42	------	4	38	------	------	------	------	------	------	------	------	------	2	4	36
Mechanics	13	------	------	13	------	------	------	------	------	------	------	2	5	3	3	------
Mill hands	18	------	------	18	------	------	------	------	------	------	1	3	7	1	5	1
Molders	29	------	12	17	------	------	------	------	------	------	------	------	------	5	24	------
Molders, apprentices	3	------	3	------	------	------	------	------	2	------	------	1	------	------	------	------
Painters	9	------	------	9	------	------	------	------	------	------	------	3	6	------	------	------
Patternmakers	6	------	3	3	------	------	------	------	------	------	------	------	1	------	2	3
Patternmakers, apprentices	3	------	2	1	------	------	------	------	1	1	------	1	------	------	------	------
Storekeepers	12	------	------	4	8	------	------	------	1	------	1	1	9	------	------	------
Teamsters	9	------	------	9	------	------	------	------	------	------	------	2	5	2	------	------
Watchmen	3	------	------	2	------	------	1	------	------	------	------	1	2	------	------	------
Wheelwrights	8	------	------	8	------	------	------	------	------	------	------	1	------	7	------	------
General help	29	------	------	29	------	------	------	------	------	1	2	18	6	------	2	------
General help (F.)	1	------	1	------	------	------	------	------	------	------	------	1	------	------	------	------
Clerical:																
Bookkeepers	8	------	2	6	------	------	------	------	------	------	------	------	1	2	1	4
Bookkeepers (F.)	2	1	1	------	------	------	------	------	------	2	------	------	------	------	------	------
Errand boys	4	------	------	4	------	------	------	------	------	4	------	------	------	------	------	------
Office clerks	21	------	1	20	------	------	------	------	------	1	1	3	6	5	1	4
Salesmen	17	------	2	15	------	------	------	------	------	------	------	2	2	1	2	10
Shipping clerks	2	------	------	2	------	------	------	------	------	------	------	------	------	1	------	1
Stenographers (F.)	16	------	16	------	------	------	------	------	------	3	3	5	3	2	------	------
Telephone girls	2	------	2	------	------	------	------	------	------	------	2	------	------	------	------	------
Totals	556	1	130	416	8	------	1	------	9	16	21	122	129	86	109	61

Printing, Newspapers, etc.	5	establishments.														
Manufacturing:																
Bindery girls	3		3							2	1					
Bookbinders	6		6												4	2
Bookbinders, apprentices	2		2							1	1					
Compositors	15		15												6	9
Compositors, apprentices	4		4							2		1	1			
Linotype operators	13		13													13
Linotype operators, apprentices	1		1								1					
Mailing-room help	3		3					1	1	1						
Managers and foremen	7		7													7
Pressfeeders	10		10						1	1			4	1	3	
Pressfeeders (F.)	1		1										1			
Pressmen	12		12												4	8
Pressmen, apprentices	4		4							1		1	2			
Proofreaders (F.)	2		2								1		1			
Reporters and editors	16		16								1		9		6	
Stereotypers	2		2													2
Stereotypers, helpers	2		2							2						
Clerical:																
Bookkeepers	3		3												2	1
Bookkeepers (F.)	2		2									1	1			
Office clerks	7		7								2	3				2
Office clerks (F.)	4		4								2	2				
Stenographers (F.)	2		2									2				
Totals	121		121					1	2	10	9	10	19	1	25	44
Restaurants.	2	establishments.														
Manufacturing:																
Cooks	3				3						3					
Kitchen help	3				3						3					
Waiters	8				8						8					
Waitresses	7	7								1	6					
Totals	21	7			14					1	20					
Slaughtering and Meat Packing.	3	establishments.														
Manufacturing:																
Engineers	2				2									2		
Killers and dressers	6			3	3								2	1	3	
Killers and dressers, apprentices	3			1	2						1	2				
Managers and foremen	2				2											2
Meat cutters	14				7	7								7	7	

TABLE No. 31. CITY OF STOCKTON.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Slaughtering and Meat Packing—Continued.																
Porters and packers	7			2	1	4					2	2		2		1
Sausage makers	5				5								1	2	2	
Stablemen	3				3						1	1	1			
Teamsters	19				19						10	8	1			
Vaqueros	6				6						4		2			
Clerical:																
Bookkeepers	3			1	2											3
Bookkeepers (F.)	1		1												1	
Buyers	2		1		1											2
Cashiers (F.)	1		1									1				
Office clerks	2			1	1								1		1	
Salesmen	1			1											1	
Totals	77		3	9	54	11					18	14	8	14	15	8
Miscellaneous.	3	establishments.														
Manufacturing:																
Boat builders	6		6												6	
Boat builders, apprentices	2		2							1	1					
Boat builders, helpers	4		4										4			
Butter makers	2			2										1	1	
Engineers	1						1						1			
Managers and foremen	2				2										1	1
General help	30				30						23	1	4	2		
General help (F.)	2		2							2						
Clerical:																
Bookkeepers (F.)	1		1										1			
Saleswomen	2		2							2						
Stenographers (F.)	1		1							1						
Totals	53		18	2	32		1			6	24	1	10	3	8	1

TABLE NO. 32. CITY OF STOCKTON.

Wholesale Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Wholesale.	5	est	ablis	hmen	ts.											
Bookkeepers	1		1													1
Bookkeepers (F.)	5		5								1			2		2
Managers and foremen	7		4	2	1											7
Office clerks	6		4		2								5		1	
Office clerks (F.)	1	1							1							
Porters and packers	9		2	7									8	1		
Salesmen	25		17	2	6							1		5	3	16
Shipping clerks	4		1	3										1	2	1
Stenographers (F.)	7		7								4	3				
Stock clerks	3		2	1										2	1	
Stock clerks (F.)	2		2							1		1				
Teamsters	7		4	2	1							1	3	2	1	
Totals	77	1	49	17	10				1	1	5	6	16	13	8	27

TABLE NO. 33. CITY OF STOCKTON.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clothing.	5	establishments.														
Alteration hands (F.)	48		48								13	22	7	3		3
Bookkeepers	1		1									1				
Bookkeepers (F.)	4		4								1	1	1	1		
Cashiers (F.)	5		5							1	4					
Errand boys	4		1	3						3	1					
Managers and foremen	1			1												1
Millinery workers (F.)	22		22					3	4	5	2	2	3	3		
Office clerks (F.)	1		1							1						
Porters and packers	4			4						1	2	1				
Salesmen	10		1	9										2	3	5
Saleswomen	55		55						4	6	8	11	15	6		5
Stenographers (F.)	1		1							1						
Stock clerks (F.)	2		2							2						
Tailors	6		2	4										3		3
Totals	164		143	21				3	8	20	31	38	26	18	3	17
Confectionery.	4	establishments.														
Candy makers	5			5										4	1	
Candy makers, helpers	2			2						1		1				
Chocolate dippers (F.)	2		2								2					
Errand boys	1		1						1							
Saleswomen	13		13							7	5	1				
Soda dispensers	2				2									2		
Totals	25		16	7	2				1	8	7	2		6	1	
Department Stores.	1	establishment.														
Bookkeepers	1		1													1
Bookkeepers (F.)	1		1										1			
Cashiers (F.)	2		2									1	1			
Errand boys	2		2							2						
Managers and foremen	2		2										1			1

Salesmen	12		12										2	3	3	4
Saleswomen	20		20							11	4	1	4			
Totals	40		40							13	4	2	9	3	3	6
Drug Stores.	14	establishments.														
Bookkeepers	2			2											2	
Drug clerks	23				23							1		5		17
Drug clerks, apprentices	3		1	2						2	1					
Errand boys	18	9	1	8				2	13	3						
Managers and foremen	1				1											1
Office clerks (F.)	3		3							2	1					
Porters and packers	2	1	1							1		1				
Saleswomen	2		2							1	1					
Soda dispensers	2		1		1						1					1
Totals	56	10	9	12	25			2	13	9	4	2		5	2	19
Dry Goods.	5	establishments.														
Alteration hands (F.)	4		4								2	2				
Bookkeepers (F.)	3		3									2				1
Cashiers (F.)	2		2								1	1				
Errand boys	2	1		1					1	1						
Millinery workers (F.)	3		3										2	1		
Salesmen	18			18									1	8	1	8
Saleswomen	47		47						1	9	23	6	3	5		
Stock clerks	1			1							1					
Totals	80	1	59	20					2	10	27	11	6	14	1	9
Furniture.	2	establishments.														
Bookkeepers (F.)	2		2											1		1
Carpet layers	6		2	4							1				2	3
Furniture handlers	4			4									2	1	1	
Managers and foremen	1			1												1
Porters and packers	7			7								1	2	4		
Salesmen	7			7									1	1		5
Seamstresses	3		3									3				
Stenographers (F.)	1		1									1				
Teamsters	3			3									1		2	
Totals	34		8	26							1	5	6	7	5	10

TABLE NO. 33. CITY OF STOCKTON.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Groceries.	2	establishments.														
Bookkeepers (F.)	2		2										1	1		
Office clerks (F.)	1		1								1					
Salesmen	14				14						3		7	4		
Saleswomen	1		1								1					
Totals	18		4		14						5		8	5		
Hardware.	1	establishment.														
Bookkeepers	1				1											1
Cashiers	1				1											1
Managers and foremen	1				1											1
Porters and packers	2				2							2				
Salesmen	8				8								1	3		4
Shipping clerks	1				1											1
Stenographers (F.)	1		1									1				
Teamsters	3				3							2	1			
Totals	18		1		17							5	2	3		8
Household Goods.	2	establishments.														
Bookkeepers (F.)	2		2							1	1					
Cashiers (F.)	1		1							1						
Managers and foremen	1			1												1
Salesmen	4			4						1	1		2			
Saleswomen	10		10						5	3	2					
Stock clerks	3			3						1	1		1			
Teamsters	1			1						1						
Totals	22		13	9					5	8	5		3			1
Millinery.	3	establishments.														
Apprentices (F.)	5		5					5								
Makers (F.)	6		6						1	3	1		1			

Saleswomen	1		1							1						
Trimmers (F.)	1		1													1
Totals	13		13					5	1	4	1		1			1
Miscellaneous.	4	establishments.														
Bookkeepers (F.)	3		3									1	1			1
Bicycle repair men	3			3									2	1		
Collectors	2			2						1			1			
Errand boys	1			1						1					1	
Gunsmiths	1			1												
Machinists	5		4	1											4	1
Managers and foremen	1				1											1
Office clerks	1			1								1				
Porters and packers	2				2									2		
Salesmen	7			5	2								1	1	2	3
Saleswomen	3		3						1		1		1			
Totals	29		10	14	5				1	2	1	2	6	4	7	6

TABLE No. 34. CITY OF STOCKTON.

Miscellaneous Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Miscellaneous.	3	establishments.														
Bookkeepers	2			1	1								1			1
Errand boys	1			1						1						
Lumber hands	32			32									1	31		
Managers and foremen	5			3	1	1								3		2
Office clerks	4			3	1						1			1	1	1
Stablemen	13				3	10					2	1	7	2	1	
Stenographers (F.)	1		1										1			
Tallymen	9			9										9		
Teamsters	16			7	9								2	12		2
Watchmen	1			1									1			
Totals	84		1	57	15	11				1	3	1	13	58	2	6

TABLE No. 35. CITY OF STOCKTON.

Summary of All Establishments. Hours of Labor and Wages. (Tabulated by industry.)

INDUSTRY.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing:																
Bakery products	46	2	5	37	------	2	------	------	2	1	7	1	7	21	2	5
Clothing	17	------	1	16	------	------	------	------	------	------	1	1	1	6	5	3
Engines, boilers and tanks	249	------	20	228	1	------	------	------	1	39	7	13	31	32	83	43
Flouring mill products	197	------	39	38	115	------	5	------	------	20	4	19	21	83	16	34
Foundries and structural iron	60	------	36	24	------	------	------	------	4	1	1	12	11	2	27	2
Hardware, plumbing, etc.	67	------	33	------	34	------	------	------	------	4	4	2	16	5	22	14
Harness and saddlery	93	------	9	82	------	------	2	------	------	1	13	38	18	13	5	5
Laundries	191	------	175	15	------	------	1	------	------	69	46	16	10	36	10	4
Liquors, malt	56	------	51	1	4	------	------	------	------	------	1	1	------	20	24	10
Lumber and milling	142	------	98	44	------	------	------	------	------	8	14	35	7	9	48	21
Machinery	556	1	130	416	8	------	1	------	9	16	21	122	129	86	109	64
Printing, newspapers, etc.	121	------	121	------	------	------	------	1	2	10	9	10	19	1	25	44
Restaurants	21	7	------	------	14	------	------	------	------	1	20	------	------	------	------	------
Slaughtering and meat packing	77	------	3	9	54	11	------	------	------	------	18	14	8	14	15	8
Miscellaneous	53	------	18	2	32	------	1	------	------	6	24	1	10	3	8	1
Totals	1946	10	739	912	262	13	10	1	18	176	190	285	288	331	399	258
Wholesale	77	1	49	17	10	------	------	------	1	1	5	6	16	13	8	27
Retail:																
Clothing	164	------	143	21	------	------	------	3	8	20	31	38	26	18	3	17
Miscellaneous	84	------	16	7	2	------	------	------	1	8	7	2	------	6	1	------
			40	------	------	------	------	------	------	13	4	2	9	3	3	6
Recapitulation:			9	12	25	------	------	2	13	9	4	2	------	5	2	19
Manufacturing	1946	10	59	20	------	------	------	------	2	10	27	11	6	14	1	9
Wholesale	77	1	8	26	------	------	------	------	------	------	1	5	6	7	5	10
Retail	499	11	4	------	14	------	------	------	------	------	5	------	8	5	------	------
Miscellaneous	84	------	1	------	17	------	------	------	------	------	------	5	2	3	------	8
			13	9	------	------	------	------	5	8	5	------	3	------	------	1
Grand totals	2606	22	13	------	------	------	------	5	1	4	1	------	1	------	------	1
			10	14	5	------	------	------	1	2	1	2	6	4	7	6
Total males	2079	13														
Total females	527	9	316	109	63	------	------	10	31	74	86	67	67	65	22	77

Confectionery	25	------	1	57	15	11	------	------	------	1	3	1	13	58	2	6
Department stores	40	------														
Drug stores	56	10														
Dry goods	80	1	739	912	262	13	10	1	18	176	190	285	288	331	399	258
Furniture	34	------	49	17	10	------	------	------	1	1	5	6	16	13	8	27
Groceries	18	------	316	109	63	------	------	10	31	74	86	67	67	65	22	77
Hardware	18	------	1	57	15	11	------	------	------	1	3	1	13	58	2	6
Household goods	22	------														
Millinery	13	------	1105	1095	350	24	10	11	50	252	284	359	384	467	431	368
Miscellaneous	29	------														
			587	1095	350	24	10	3	33	94	136	270	325	436	428	354
Totals	499	11	518	------	------	------	------	8	17	158	148	89	59	31	3	14

TABLE No. 36. CITY OF STOCKTON.

Female Employees. Hours of Labor and Wages. (Tabulated by industry.)

INDUSTRY.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing:																
Bakery products	5		5								5					
Clothing	1		1										1			
Engines, boilers and tanks	3		3								2			1		
Flouring mill products	23		23							18		1	3			1
Hardware, plumbing, etc.	4		4							1			1	2		
Harness and saddlery	2		2									1		1		
Laundries	135		135							68	46	15	5	1		
Liquors, malt	1		1											1		
Lumber and milling	4		4							2	1				1	
Machinery	21	1	20							5	5	6	3	2		
Printing, newspapers, etc.	14		14							2	4	5	3			
Restaurants	7	7								1	6					
Slaughtering and meat packing	2		2									1			1	
Miscellaneous	6		6							5			1			
Totals	228	8	220							102	69	29	17	8	2	1
Wholesale	15	1	14						1	1	5	4		2		2
Retail:																
Clothing	138		138					3	8	16	28	36	26	13		8
Confectionery	15		15							7	7	1				
Department stores	23		23							11	4	2	6			
Drug stores	5		5							3	2					
Dry goods	59		59						1	9	26	11	5	6		1
Furniture	6		6									4		1	1	
Groceries	4		4								2		1	1		
Hardware	1		1									1				
Household goods	13		13						5	5	3					
Millinery	13		13					5	1	4	1		1			1
Miscellaneous	6		6						1		1	1	2			1
Totals	283		283					8	16	55	74	56	41	21	1	11

Miscellaneous	1	------	1	------	------	------	------	------	------	------	------	------	1	------	------	------
Recapitulation:																
Manufacturing	228	8	220	------	------	------	------	------	------	102	69	29	17	8	2	1
Wholesale	15	1	14	------	------	------	------	------	1	1	5	4	------	2	------	2
Retail	283	------	283	------	------	------	------	8	16	55	74	56	41	21	1	11
Miscellaneous	1	------	1	------	------	------	------	------	------	------	------	------	1	------	------	------
Grand totals	527	9	518	------	------	------	------	8	17	158	148	89	59	31	3	14

TABLE No. 37. CITY OF SAN DIEGO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Automobile Accessories.	1	est	ablis	hmen	t.											
Manufacturing:																
Lamp makers	3		3													3
General help	1		1								1					
Totals	4		4								1					3
Awnings, Tents, etc.	1	est	ablis	hmen	t.											
Manufacturing:																
Awning makers	3			3										1	1	1
Operators (F.)	2		2									2				
Porters and packers	2			2							2					
Clerical:																
Bookkeepers (F.)	1		1									1				
Office clerks	1			1								1				
Totals	9		3	6							2	4		1	1	1
Bakery Products.	7	est	ablis	hmen	ts.											
Manufacturing:																
Bakers	53			33	20								1	29	20	3
Bakers, apprentices	2				2							2				
Bakers, helpers	2			1	1							1	1			
Cooks	2				2					1						1
Drivers	17			10	7								7	10		
Managers and foremen	6			2	4									1		5
Clerical:																
Bookkeepers (F.)	4		4							1	1	1	1			
Cashiers (F.)	1		1									1				
Office clerks	4			4									2	2		
Salesmen	1				1									1		
Saleswomen	9	1	8							5	2	2				
Totals	101	1	13	50	37					7	3	7	12	43	20	9

Cigars and Cigarettes.	1	establishment.														
Manufacturing:																
Cigar makers	61		61												61	
Managers and foremen	1		1													1
Porters and packers	6		6								1				5	
Strippers (F.)	18		18							18						
Clerical:																
Bookkeepers	1		1												1	
Bookkeepers (F.)	1		1							1						
Office clerks	5		5							1	1		2		1	
Office clerks (F.)	2		2										2			
Totals	95		95							20	2		4		68	1
Clothing.	2	establishments.														
Manufacturing:																
Tailors	5		5										2		1	2
Tailors (F.)	1		1								1					
Totals	6		6								1		2		1	2
Confectionery.	8	establishments.														
Manufacturing:																
Candy makers	23		3	18	2					6	2	2		6	1	6
Candy makers, helpers (F.)	3		3							3						
Chocolate dippers (F.)	15		15								9	6				
Cooks (F.)	1		1									1				
Firemen	1			1									1			
Ice cream makers	5		2		3					1	1			2		1
Kitchen help (F.)	1		1								1					
Managers and foremen	4			3	1										1	3
Packers (F.)	30		30						10	20						
Porters and packers	4			3	1					2	1	1				
Soda dispensers	3			3									1	1	1	
Teamsters	10			5	5							9		1		
Waiters	3			3								3				
Waitresses	6	6								6						
Clerical:																
Bookkeepers (F.)	1		1									1				
Cashiers (F.)	1	1										1				
Office clerks	2			2										2		
Office clerks (F.)	2		2								1		1			

TABLE No. 37. CITY OF SAN DIEGO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical—Continued.																
Salesmen	2			2												2
Saleswomen	21	15	6							14	5	2				
Totals	138	22	64	40	12				10	52	20	26	3	12	3	12
Dyeing and Cleaning.	2	establishments.														
Manufacturing:																
Cleaners	2				2								1	1		
Drivers	1				1								1			
Dyers	1				1											1
Pressers	3				3							3				
Pressers (F.)	4		4									4				
Tailors	1				1										1	
Clerical:																
Errand boys	1		1							1						
Office clerks (F.)	1		1							1						
Totals	14		6		8					2		7	2	1	1	1
Electrical Goods and Supplies.	4	establishments.														
Manufacturing:																
Electricians	2		1	1												2
Electricians, apprentices	2		2							2						
Fixture men	11		6	5								1	3	2	5	
Managers and foremen	7			7											1	6
Polishers	2		2							1		1				
Wiremen	34		11	23									2	30	2	
Wiremen, helpers	13		4	9					1	2	10					
Clerical:																
Bookkeepers	3			3									1	1		1
Errand boys	1			1					1							
Office clerks	3			3						1						2
Salesmen	10			10						1				3		6

Saleswomen	1		1									1				
Stenographers (F.)	3		3									3				
Stock clerks	2			2									1	1		
Totals	94		30	64					2	7	10	6	7	37	8	17
Engines and Tanks.	1	est	ablis	hmen	t.											
Manufacturing:																
Foundry helpers	3			3											3	
Installers	2			2												2
Machinists	12			12											12	
General help	3			3								3				
Totals	20			20								3			15	2
Flouring Mill Products.	2	est	ablis	hmen	ts.											
Manufacturing:																
Engineers	2			1	1									1		1
Managers and foremen	4			2	2									1		3
Millers	2				2										1	1
Teamsters	4			4									4			
Warehousemen	8			1	7								7	1		
Clerical:																
Bookkeepers	2				2										1	1
Bookkeepers (F.)	1		1									1				
Salesmen	3			2	1									1		2
Totals	26		1	10	15							1	11	4	2	8
Foundries.	2	est	ablis	hmen	ts.											
Manufacturing:																
Casting chippers	1			1								1				
Core makers	2			2							1			1		
Cupolamen	1			1									1			
Foundry helpers	1			1								1				
Machine hands	1			1								1				
Machinists	4			4											2	2
Machinists, apprentices	6			6						6						
Managers and foremen	1			1												1
Molders	3			3										1	2	
Molders, apprentices	1			1							1					
Molders, helpers	1			1								1				
General help	4			3	1							3	1			

TABLE No. 37. CITY OF SAN DIEGO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical:																
Bookkeepers	1			1												1
Totals	27			26	1					6	2	7	2	2	4	4
Ice.	1	establishment.														
Manufacturing:																
Engineers	2						2							1		1
Managers and foremen	1				1											1
Stablemen	2			2								2				
Teamsters	12			12										12		
Clerical:																
Bookkeepers	1			1										1		
Totals	18			15	1		2					2		14		2
Jewelry.	3	establishments.														
Manufacturing:																
Engravers	2			2												2
Jewelers	6			6						1				1		4
Jewelers, apprentices	2			2				1	1							
Managers and foremen	3			3												3
Opticians	6		1	5						1			1			4
Opticians, helpers (F.)	1		1						1							
Porters and packers	2			2						1			1			
Watchmakers	9			9												9
Clerical:																
Bookkeepers	2			2										2		
Bookkeepers (F.)	3		3									2		1		
Cashiers	1		1									1				
Errand boys	2			2					1	1						
Salesmen	8			8								1	1	1	1	4
Saleswomen	2		2									1	1			
Totals	49		8	41				1	3	4		5	4	5	1	26

Laundries.	6	establishments.														
Manufacturing:																
Drivers	52		21	31							3	3	33	6	3	4
Engineers	4		2	2									2	2		
Ironers, hand	2			2								2				
Ironers, hand (F.)	56		56						1	24	11	20				
Ironers, machine (F.)	37		37							26	9	2				
Manglers	2			2						2						
Manglers (F.)	59		59							57	2					
Managers and foremen	11		5	6										5		6
Managers and forewomen	1		1									1				
Markers and distributors	15		8	7							1	1	7	6		
Markers and distributors (F.)	14		14							6	4	4				
Seamstresses	3		3							2	1					
Starchers	2		1	1								2				
Starchers (F.)	10		10							4	6					
Washroom hands	18		8	10						1	2	7	4	3		1
General help	5			5						1	1	2	1			
General help (F.)	16		16							14	2					
Clerical:																
Bookkeepers	1		1													1
Bookkeepers (F.)	5		5							1	3		1			
Office clerks (F.)	3		3							1	1	1				
Totals	316		250	66					1	139	46	45	48	22	3	12
Liquors, Malt.	1	establishment.														
Manufacturing:																
Bottlers	13		13											13		
Brewers	15		15												15	
Brewmasters	1		1													1
Drivers, bottle	2		2											1	1	
Drivers, keg	2		2													2
Engineers	6		6													6
Managers and foremen	3		3													3
Clerical:																
Bookkeepers	2		2												1	1
Office clerks	1		1											1		
Salesmen	1		1													1
Totals	46		46											15	17	14

TABLE No. 37. CITY OF SAN DIEGO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Lumber and Milling.	3	establishments.														
Manufacturing:																
Bench hands	13	------	13	------	------	------	------	------	------	------	------	------	2	9	2	------
Bench hands, apprentices	10	------	10	------	------	------	------	------	------	------	2	------	8	------	------	------
Engineers	2	------	2	------	------	------	------	------	------	------	------	------	------	1	1	------
Glaziers	6	------	6	------	------	------	------	------	------	------	------	------	6	------	------	------
Lumber hands	147	------	------	147	------	------	------	------	------	------	------	5	142	------	------	------
Managers and foremen	6	------	3	3	------	------	------	------	------	------	------	------	------	------	------	6
Mill hands	12	------	12	------	------	------	------	------	------	------	------	10	------	------	2	------
Planers	5	------	5	------	------	------	------	------	------	------	------	------	3	2	------	------
Sanders	3	------	3	------	------	------	------	------	------	------	------	------	3	------	------	------
Sash and door makers	14	------	14	------	------	------	------	------	------	------	------	------	------	13	1	------
Saw filers	4	------	4	------	------	------	------	------	------	------	------	------	------	4	------	------
Sawyers	8	------	8	------	------	------	------	------	------	------	------	------	5	3	------	------
Stickers	4	------	4	------	------	------	------	------	------	------	------	2	------	1	1	------
Tallymen	1	------	1	------	------	------	------	------	------	------	------	------	1	------	------	------
Teamsters	13	------	------	13	------	------	------	------	------	------	------	------	13	------	------	------
Wood turners	5	------	5	------	------	------	------	------	------	------	------	------	------	1	4	------
Clerical:																
Bookkeepers	3	------	1	2	------	------	------	------	------	------	------	------	------	1	------	2
Office clerks	7	------	2	5	------	------	------	------	------	------	------	2	------	2	1	2
Office clerks (F.)	2	------	2	------	------	------	------	------	------	------	------	------	1	------	------	1
Salesmen	2	------	------	2	------	------	------	------	------	------	------	------	------	------	------	2
Stenographers (F.)	2	------	2	------	------	------	------	------	------	------	------	------	2	------	------	------
Totals	269	------	97	172	------	------	------	------	------	------	2	19	186	37	12	13
Mattresses, Beds, etc.	2	establishments.														
Manufacturing:																
Cabinet makers	10	------	10	------	------	------	------	------	------	------	------	------	------	10	------	------
Cabinet makers, helpers	5	------	5	------	------	------	------	------	------	------	1	4	------	------	------	------
Managers and foremen	2	------	1	1	------	------	------	------	------	------	------	------	------	------	------	2
Mattress makers	16	------	3	13	------	------	------	------	------	------	------	------	6	5	5	------
Seamstresses	4	------	4	------	------	------	------	------	------	------	1	2	------	1	------	------
Spring makers	3	------	------	3	------	------	------	------	------	------	------	------	------	1	2	------

Teamsters	3	------	1	2	------	------	------	------	------	------	------	2	1	------	------	------
General help	11	------	10	1	------	------	------	------	------	------	1	------	1	9	------	------
Clerical:																
Bookkeepers	1	------	------	1	------	------	------	------	------	------	------	------	------	1	------	------
Office clerks	2	------	1	1	------	------	------	------	------	------	------	1	------	1	------	------
Salesmen	1	------	------	1	------	------	------	------	------	------	------	------	------	1	------	------
Stenographers (F.)	1	------	1	------	------	------	------	------	------	1	------	------	------	------	------	------
Totals	59	------	36	23	------	------	------	------	------	1	3	9	8	29	7	2
Plating.	2	est	ablis	hmen	ts.											
Manufacturing:																
Managers and foremen	1	------	1	------	------	------	------	------	------	------	------	------	------	------	------	1
Platers	1	------	1	------	------	------	------	------	------	------	------	------	1	------	------	------
Platers, helpers	2	------	2	------	------	------	------	------	------	1	------	1	------	------	------	------
Polishers	2	------	2	------	------	------	------	------	------	------	------	------	1	1	------	------
Totals	6	------	6	------	------	------	------	------	------	1	------	1	2	1	------	1
Plumbing, Gasfitting, etc.	3	est	ablis	hmen	ts.											
Manufacturing:																
Managers and foremen	3	------	3	------	------	------	------	------	------	------	------	------	------	------	------	3
Plumbers	37	------	37	------	------	------	------	------	------	------	------	------	------	------	2	35
Plumbers, apprentices	5	------	5	------	------	------	------	------	------	5	------	------	------	------	------	------
Plumbers, helpers	8	------	8	------	------	------	------	------	------	2	2	------	4	------	------	------
Steamfitters	4	------	4	------	------	------	------	------	------	------	------	1	------	1	------	2
Teamsters	2	------	2	------	------	------	------	------	------	------	------	------	2	------	------	------
General help	2	------	2	------	------	------	------	------	------	1	------	------	1	------	------	------
Clerical:																
Bookkeepers (F.)	3	------	3	------	------	------	------	------	------	------	------	2	1	------	------	------
Totals	64	------	64	------	------	------	------	------	------	8	2	3	8	1	2	40
Printing and Newspapers.	10	est	ablis	hmen	ts.											
Manufacturing:																
Bookbinders	3	------	3	------	------	------	------	------	------	------	------	------	1	------	2	------
Bookbinders, apprentices	2	------	2	------	------	------	------	------	1	------	1	------	------	------	------	------
Bindery girls	12	------	12	------	------	------	------	------	------	10	1	1	------	------	------	------
Compositors	16	------	16	------	------	------	------	------	------	------	------	------	1	1	10	4
Compositors, apprentices	2	------	2	------	------	------	------	------	------	2	------	------	------	------	------	------
Embossers (F.)	2	------	2	------	------	------	------	------	1	1	------	------	------	------	------	------
Managers and foremen	5	------	5	------	------	------	------	------	------	------	------	------	------	1	1	3

TABLE No. 37. CITY OF SAN DIEGO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Paper cutters	1		1											1		
Porters and packers	2		2						1		1					
Press feeders	12		12						1	1	3	6	1			
Press feeders (F.)	1		1								1					
Pressmen	13		13									4		5	3	1
Pressmen, apprentices	1		1									1				
Proofreaders	1		1													1
Proofreaders (F.)	1		1								1					
Clerical:																
Bookkeepers	1		1													1
Bookkeepers (F.)	1		1										1			
Office clerks	1		1							1						
Office clerks (F.)	2		2									2				
Salesmen	1		1													1
Totals	80		80						4	15	8	14	4	8	16	11
Restaurants.	21	establishments.														
Manufacturing:																
Bakers	4		1	1	2								3		1	
Bakers, apprentices	1			1							1					
Bartenders	3			1	2								1	2		
Bus boys	11			6	5					11						
Cooks	54			4	49	1					3	4	14	16	10	7
Cooks (F.)	6	1	5							1	3		2			
Cooks, helpers	16				14	2					9	7				
Kitchen help	72		4	10	58					4	55	12	1			
Kitchen help (F.)	16	5	11							12	4					
Managers and forewomen	1		1													1
Waiters	75	1	12	2	60					5	60	7		1	1	1
Waitresses	48	8	40							35	13					
General help	3			3						1	2					
General help (F.)	1		1								1					

Clerical:															
Bookkeepers (F.)	3	3								1	1	1			
Cashiers	4	1	1		2						2	2			
Cashiers (F.)	11	3	8							4	4	3			
Totals	329	22	84	28	192	3				74	158	36	21	19	12	9
Slaughtering and Meat Packing.	3	establishments.														
Manufacturing:															
Coolermen	6				6								3	3		
Engineers	8			8										4	2	2
Killers and dressers	7		1		6									4	3	
Killers and dressers, apprentices	1		1										1			
Managers and foremen	7				7										2	5
Meat cutters	58				58								15	38	5	
Porters and packers	6				6								3	3		
Sausage makers	7				7								3	4		
Teamsters	19				19							3	9	7		
Vaqueros	2				2								1	1		
Wool sorters	3			3										3		
General help	48			47	1						3		28	17		
Clerical:																
Bookkeepers	8			6	2									2	2	4
Bookkeepers (F.)	1		1											1		
Office clerks	8			7	1									2	3	3
Office clerks (F.)	8		8									4	4			
Salesmen	11			6	5							1	1		3	6
Stenographers (F.)	1		1											1		
Totals	209		12	77	120						3	8	68	90	20	20
Stoves and Furnaces.	1	establishment.														
Manufacturing:																
Managers and foremen	2		2													2
Sheet metal workers	6		6											3	3	
Sheet metal workers, apprentices	2		2								1	1				
Stove repair men	9		9										5		4	
Clerical:																
Bookkeepers (F.)	1		1											1		
Collectors	1		1									1				
Totals	21		21								1	2	5	4	7	2

TABLE No. 37. CITY OF SAN DIEGO.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Tinware and Sheet Metal.	3	establishments.														
Manufacturing:																
Sheet metal workers	23	------	23	------	------	------	------	------	------	------	------	------	------	------	8	15
Sheet metal workers, apprentices	10	------	10	------	------	------	------	------	------	4	------	------	1	------	5	------
Teamsters	1	------	1	------	------	------	------	------	------	------	------	------	1	------	------	------
Clerical:																
Bookkeepers	2	------	2	------	------	------	------	------	------	------	------	------	------	1	------	1
Solicitors	4	------	4	------	------	------	------	------	------	------	------	------	------	1	------	3
Totals	40	------	40	------	------	------	------	------	------	4	------	------	2	2	13	19
Miscellaneous.	7	establishments.														
Manufacturing:																
Draughtsmen	2	------	2	------	------	------	------	------	------	------	1	1	------	------	------	------
Glass polishers	4	------	4	------	------	------	------	------	------	------	------	------	------	4	------	------
Managers and foremen	2	------	2	------	------	------	------	------	------	------	------	------	------	------	------	2
Paper box makers (F.)	6	------	6	------	------	------	------	------	2	3	1	------	------	------	------	------
Shoe makers	5	------	------	5	------	------	------	------	------	------	------	------	------	------	------	5
General help	6	1	4	1	------	------	------	------	1	3	1	------	1	------	------	------
General help (F.)	6	------	6	------	------	------	------	------	------	------	------	------	5	------	------	1
Clerical:																
Bookkeepers (F.)	2	------	2	------	------	------	------	------	------	------	1	1	------	------	------	------
Errand boys	1	------	1	------	------	------	------	------	1	------	------	------	------	------	------	------
Salesmen	2	------	1	1	------	------	------	------	------	------	------	------	------	------	1	1
Saleswomen	3	------	3	------	------	------	------	------	------	1	1	------	1	------	------	------
Totals	39	1	31	7	------	------	------	------	4	7	5	2	7	4	1	9

TABLE No. 38. CITY OF SAN DIEGO.

Wholesale Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Commission Merchants.	4	establishments.														
Bookkeepers	2			2									2			
Bookkeepers (F.)	5		5								1	4				
Collectors	1		1											1		
Managers and foremen	1			1												1
Porters and packers	22		5	6	11					2	5	5	10			
Salesmen	8			3	5								1	4		3
Shipping clerks	3		2	1									2			1
Stenographers (F.)	2	1	1									2				
Teamsters	17		9	1	7							4	12	1		
Totals	61	1	23	14	23					2	6	15	27	6		5
Drugs.	1	establishment.														
Bookkeepers (F.)	1		1										1			
Collectors (F.)	1		1										1			
Managers and foremen	1		1													1
Office clerks	3		3							1	1			1		
Porters and packers	1		1									1				
Salesmen	3		3													3
Shipping clerks	4		4									1	3			
Teamsters	1		1									1				
Totals	15		15							1	1	3	5	1		4
Groceries	7	establishments.														
Bookkeepers	4		1	1	1		1					1		3		
Bookkeepers (F.)	6		6									2	2		1	1
Coffee roasters	3			3										1	2	
Collectors	2			1			1								1	1
Errand boys	1			1						1						
Extract makers	1			1											1	
Labelers (F.)	2		2							2						
Managers and foremen	4			3	1										1	3
Meat cutters	4					4								4		

TABLE No. 38. CITY OF SAN DIEGO.

Wholesale Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Contiuned.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Groceries—Continued.																
Office clerks	3	------	------	1	------	------	2	------	------	------	------	------	3	------	------	------
Office clerks (F.)	5	------	5	------	------	------	------	------	------	------	------	1	4	------	------	------
Porters and packers	10	------	------	10	------	------	------	------	------	1	------	3	6	------	------	------
Salesmen	37	------	------	35	1	------	1	------	------	------	------	------	3	7	1	26
Shipping clerks	5	------	------	5	------	------	------	------	------	------	------	------	1	4	------	------
Stenographers	1	------	------	1	------	------	------	------	------	------	------	1	------	------	------	------
Stenographers (F.)	3	------	3	------	------	------	------	------	------	------	------	------	3	------	------	------
Stock clerks	5	------	------	5	------	------	------	------	------	------	------	------	------	5	------	------
Teamsters	24	------	------	20	1	1	2	------	------	1	------	4	19	------	------	------
Totals	120	------	17	87	4	5	7	------	------	5	------	12	41	24	7	31
Hardware.	4	est	ablis	hmen	ts.											
Bookkeepers	10	------	------	7	3	------	------	------	------	------	------	2	4	2	1	1
Cashiers	1	------	------	------	1	------	------	------	------	------	------	------	1	------	------	------
Collectors	2	------	------	------	2	------	------	------	------	------	------	1	1	------	------	------
Engineers	7	------	------	7	------	------	------	------	------	------	------	------	------	6	------	1
Errand boys	4	------	------	2	2	------	------	------	2	2	------	------	------	------	------	------
Managers and foremen	9	------	------	2	7	------	------	------	------	------	------	------	------	1	2	6
Mechanics	2	------	------	1	1	------	------	------	------	------	------	------	------	------	1	1
Office clerks	2	------	------	------	2	------	------	------	------	------	1	1	------	------	------	------
Office clerks (F.)	2	------	2	------	------	------	------	------	------	------	1	------	1	------	------	------
Porters and packers	18	------	------	3	15	------	------	------	------	------	1	16	1	------	------	------
Salesmen	50	------	7	17	26	------	------	------	------	------	------	------	11	27	12	------
Shipping clerks	5	------	------	3	2	------	------	------	------	------	------	------	3	2	------	------
Stenographers (F.)	8	------	8	------	------	------	------	------	------	------	------	6	------	2	------	------
Teamsters	8	------	------	3	5	------	------	------	------	------	5	------	3	------	------	------
Totals	128	------	17	45	66	------	------	------	2	2	8	26	25	40	16	9
Miscellaneous.	7	est	ablis	hmen	ts.											
Bookkeepers	4	------	1	2	1	------	------	------	------	------	------	------	1	1	------	2
Bookkeepers (F.)	3	1	2	------	------	------	------	------	------	1	------	1	1	------	------	------
Carpenters	4	------	------	4	------	------	------	------	------	------	------	------	------	4	------	------

Glaziers	11	------	------	11	------	------	------	------	------	------	------	------	5	3	3	------
Managers and foremen	3	------	------	2	1	------	------	------	------	------	------	------	------	------	1	2
Office clerks	15	------	------	15	------	------	------	------	------	------	------	------	5	7	1	2
Salesmen	12	------	1	8	3	------	------	------	------	------	------	------	3	6	------	3
Shipping clerks	6	------	------	5	1	------	------	------	------	------	------	------	1	5	------	------
Stenographers	2	------	------	1	1	------	------	------	------	------	------	1	1	------	------	------
Teamsters	14	------	------	7	7	------	------	------	------	------	------	------	8	1	5	------
Telephone girls	1	------	1	------	------	------	------	------	------	1	------	------	------	------	------	------
Warehousemen	5	------	------	5	------	------	------	------	------	------	------	------	4	1	------	------
General help	17	------	------	14	3	------	------	------	------	------	1	------	13	2	1	------
Totals	97	1	5	74	17	------	------	------	------	2	1	2	42	30	11	9

TABLE No. 39. CITY OF SAN DIEGO.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Automobile Supplies.	4	establishments.														
Bookkeeepers	2			2									1	1		
Bookkeepers (F.)	3		3							1			1	1		
Errand boys	4			4						2	1		1			
Managers and foremen	3		2	1												3
Mechanics	11		5	6						1	1		1	6	1	1
Porters and packers	1		1										1			
Salesmen	4		2	2										1	2	1
Stenographers (F.)	3		3								1	2				
Totals	31		16	15						4	3	2	5	9	3	5
Clothing.	13	establishments.														
Alteration hands (F.)	29		29								14	11	2	2		
Bookkeepers	3		2	1								1			1	1
Bookkeepers (F.)	9		9								1	4	1	2	1	
Carpet layers	5		5								1			1	2	1
Cashiers	2			2								1	1			
Cashiers (F.)	4		4								1	2		1		
Engineers	1			1												1
Errand boys	28		27	1				1	25	2						
Managers and foremen	19		15	4												19
Managers and forewomen	5		5													5
Millinery makers (F.)	16		16						1	4	1	6	4			
Millinery trimmers (F.)	4		4									1	1			2
Millinery apprentices (F.)	2		2						2							
Office clerks	3		3							2						1
Office clerks (F.)	6		6							1	2	3				
Porters and packers	20		2	3	15					3	3	5	9			
Salesmen	71		36	35						1	2	5	4	19	20	20
Saleswomen	70		70							16	9	15	17	11		2
Seamstresses	13		13								6	6	1			
Shoemakers	2		2										2			
Stock clerks	7		1	3	3					3	2		2			
Stock clerks (F.)	4		4						1	1	1			1		

Stenographers (F.)	2		2										2			
Tailors	10		6	4									1	4	4	1
Window dressers	2		2													2
Wrappers	10		10						5	5						
Wrappers (F.)	2		2						2							
Totals	349		277	54	18			1	36	38	43	60	47	41	28	55
Department Stores.	5	establishments.														
Alteration hands (F.)	18		18						1	2	11	2	1	1		
Bookkeepers	2		1	1									1			1
Bookkeepers (F.)	2		2								1		1			
Cashiers	2		1	1						1				1		
Cashiers (F.)	2		2							1	1					
Errand boys	10	8	2					8	2							
Managers and foremen	9			9									2	2	2	3
Managers and forewomen	8		8									1	4		2	1
Millinery trimmers (F.)	1		1													1
Office clerks	2		2							1						1
Office clerks (F.)	7		7							5	1	1				
Porters and packers	10		5	4			1		1	3	2	2	2			
Salesmen	22		15	7						1	3	3	12	2		1
Saleswomen	102		102						22	58	10	2	8	2		
Shipping clerks	2		1	1							1		1			
Stock clerks	4			4						2			2			
Stock clerks (F.)	2		2						2							
Stenographers (F.)	1		1								1					
Window dressers	2		2								1					1
Wrappers	3		3						2	1						
Wrappers (F.)	3		3						3							
General help (F.)	2		2							2						
Totals	216	8	180	27			1	8	33	77	32	11	34	8	4	9
Drug Stores.	1	establishment.														
Bookkeepers	1				1											1
Cashiers (F.)	1		1								1					
Collectors	1				1							1				
Drug clerks	10				10										10	
Errand boys	8				8					7		1				
Porters and packers	2				2						1	1				
Soda dispensers	3				3										2	1
Stenographers (F.)	1		1									1				
Totals	27		2		25					7	2	4			12	2

TABLE No. 39. CITY OF SAN DIEGO.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Dry Goods.	5	establishments.														
Alteration hands (F.)	6	------	6	------	------	------	------	------	------	------	2	2	2	------	------	------
Bookkeepers	2	------	1	1	------	------	------	------	------	------	1	------	------	------	------	1
Bookkeepers (F.)	2	------	2	------	------	------	------	------	------	1	------	1	------	------	------	------
Cashiers (F.)	3	------	3	------	------	------	------	------	------	1	1	------	1	------	------	------
Errand boys	5	------	------	5	------	------	------	------	4	1	------	------	------	------	------	------
Managers and foremen	1	------	------	1	------	------	------	------	------	------	------	------	------	------	------	1
Porters and packers	1	------	------	1	------	------	------	------	------	------	1	------	------	------	------	------
Salesmen	28	------	1	27	------	------	------	------	------	------	------	10	9	6	------	3
Saleswomen	67	------	67	------	------	------	------	------	18	25	13	------	11	------	------	------
Teamsters	1	------	------	1	------	------	------	------	------	------	1	------	------	------	------	------
Wrappers	3	------	------	3	------	------	------	------	------	3	------	------	------	------	------	------
Totals	119	------	80	39	------	------	------	------	22	31	19	13	23	6	------	5
Furniture.	5	establishments.														
Bookkeepers	2	------	------	2	------	------	------	------	------	------	1	------	1	------	------	------
Bookkeepers (F.)	5	------	5	------	------	------	------	------	------	------	2	2	1	------	------	------
Cabinetmakers	2	------	------	2	------	------	------	------	------	------	------	------	1	1	------	------
Carpet layers	8	------	------	8	------	------	------	------	------	------	------	1	1	1	5	------
Cashiers (F.)	5	------	5	------	------	------	------	------	------	------	1	1	2	------	------	1
Collectors	2	------	------	2	------	------	------	------	------	------	------	------	------	1	------	1
Errand boys	2	------	------	2	------	------	------	------	2	------	------	------	------	------	------	------
Managers and foremen	6	------	------	5	1	------	------	------	------	------	------	------	------	------	1	5
Porters and packers	15	------	------	13	2	------	------	------	------	------	2	8	2	3	------	------
Salesmen	26	------	------	22	4	------	------	------	------	------	------	------	9	6	9	2
Seamstresses	2	------	2	------	------	------	------	------	------	------	1	1	------	------	------	------
Shade makers	6	------	------	6	------	------	------	------	------	------	1	------	3	2	------	------
Shipping clerks	2	------	------	2	------	------	------	------	------	------	------	------	------	1	1	------
Stenographers (F.)	1	------	1	------	------	------	------	------	------	------	------	1	------	------	------	------
Stock clerks	3	------	------	3	------	------	------	------	------	------	1	1	1	------	------	------
Teamsters	9	------	------	5	4	------	------	------	------	------	------	1	7	1	------	------
Upholsterers	4	------	------	4	------	------	------	------	------	------	------	------	2	2	------	------
General help	6	------	------	6	------	------	------	------	------	------	------	------	2	4	------	------
Totals	106	------	13	82	11	------	------	------	2	------	9	16	32	22	16	9

Groceries.	3	establishments.														
Bookkeepers	2			1	1									1	1	
Bookkeepers (F.)	4		4								1	2			1	
Cashiers (F.)	2		2									2				
Cooks (F.)	1		1										1			
Managers and foremen	5			2	3										3	2
Office clerks	6			5	1					1		1	2	1	1	
Office clerks (F.)	4		4								1	3				
Porters and packers	5			1	4							2	2	1		
Salesmen	19			9	10						3	3	5	5	3	
Saleswomen	9		9							3	3	2	1			
Shipping clerks	4				4								2	2		
Stenographers (F.)	2		2							1	1					
Stock clerks	3			2	1							1	1		1	
Teamsters	15			15						2		7	6			
Telephone girls	2		2									2				
Totals	83		24	35	24					7	9	25	20	10	10	2
Hardware.	1	establishment.														
Managers and foremen	1				1											1
Salesmen	3				3										3	
Teamsters	1				1							1				
Totals	5				5							1			3	1
Millinery.	9	establishments.														
Apprentices (F.)	17		17					15	1	1						
Bookkeepers	1			1									1			
Designers	1		1													1
Makers (F.)	21		21						8	12	1					
Managers and forewomen	1		1											1		
Saleswomen	14		14						1	3	2	3	2	2		1
Trimmers (F.)	13		13							2	6	1	2	1		1
Totals	68		67	1				15	10	18	9	4	5	4		3
Music and Musical Instruments.	4	establishments.														
Bookkeepers	1			1						1						
Bookkeepers (F.)	2		2										1			1
Cashiers (F.)	1		1								1					
Collectors	1			1							1					
Errand boys	1			1						1						
Managers and foremen	2			2												2

TABLE No. 39. CITY OF SAN DIEGO.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over
Music and Musical Instruments—Continued.																
Porters and packers	1			1						1						
Repair men and tuners	6			6										3		3
Salesmen	12			12									5		1	6
Saleswomen	7		7							2	1	1	3			
Stenographers (F.)	1		1								1					
Totals	35		11	24						5	4	1	9	3	1	12
Stationery.	4	establishments.														
Bookkeepers	1		1									1				
Bookkeepers (F.)	2		2								1	1				
Cashiers (F.)	3		3							1	2					
Embossers	1			1						1						
Errand boys	3	1		2					2	1						
Porters and packers	2				2						2					
Printers	2			2						1				1		
Salesmen	3			3								1		2		
Saleswomen	21		21						1	14	5	1				
General help (F.)	2		2							2						
Totals	40	1	29	8	2				3	20	10	4		3		
Miscellaneous.	5	establishments.														
Bookkeepers	1				1										1	
Bookkeepers (F.)	1		1										1			
Errand boys	3		2	1					3							
Leather workers	1			1										1		
Managers and foremen	1				1											1
Meat cutters	2				2									2		
Mechanics	4			1	3							2		2		
Salesmen	2				2							1			1	
Saleswomen	4		4							1	2	1				
Teamsters	1				1								1			
Totals	20		7	3	10				3	1	2	4	2	5	2	1

TABLE No. 40. CITY OF SAN DIEGO.

Miscellaneous Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Feed and Fuel.	1	establishment.														
Bookkeepers (F.)	1	1													1	
Cashiers	1			1											1	
Managers and foremen	6			6												6
Salesmen	3			3												3
Teamsters	15			15										15		
Totals	26	1		25										15	2	9
Lumber and Shipping.	2	establishments.														
Bookkeepers	4			4												4
Lumber handlers	50			50								10	30	10		
Managers and foremen	5			5												5
Office clerks	3			3								2				1
Salesmen	10			10										10		
Teamsters	9			9									4	5		
Totals	81			81								12	34	25		10
Teaming, Livery and Storage.	5	establishments.														
Blacksmiths	2				2									2		
Bookkeepers	2				2								1	1		
Bookkeepers (F.)	2	1	1							1		1				
Cashiers (F.)	1		1											1		
Collectors	2				2								2			
Drivers, delivery	56				56								55	1		
Harness washers	2			1	1								2			
Hostlers	11			3	8							1	9	1		
Managers and foremen	3			1	2								1		1	1
Office clerks (F.)	1		1									1				
Wagon and buggy washers	3				3							1	2			
General help	3				3							1	1	1		
Totals	88	1	3	5	79					1		5	73	7	1	1

TABLE No. 41. CITY OF SAN DIEGO.

Summary of All Establishments. Hours of Labor and Wages. (Tabulated by industry.)

INDUSTRY.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing:																
Automobile accessories	4		4								1					3
Awnings, tents, etc.	9		3	6							2	4		1	1	1
Bakery products	9	1	8							5	2	2				
Cigars and cigarettes	95		95							20	2		4		68	1
Clothing	6		6								1		2		1	2
Confectionery	138	22	64	40	12				10	52	20	26	3	12	3	12
Dyeing and cleaning	14		6		8					2		7	2	1	1	1
Electrical goods and supplies	94		30	64					2	7	10	6	7	37	8	17
Engines and tanks	20			20								3			15	2
Flouring mill products	26		1	10	15							1	11	4	2	8
Foundries	27			26	1					6	2	7	2	2	4	4
Ice	18			15	1		2					2		14		2
Jewelry	49		8	41				1	3	4		5	4	5	1	26
Laundries	316		250	66					1	139	46	45	48	22	3	12
Liquors, malt	46		46											15	17	14
Lumber and milling	269		97	172							2	19	186	37	12	13
Mattresses, beds, etc.	59		36	23						1	3	9	8	29	7	2
Plating	6		6							1		1	2	1		1
Plumbing, gasfitting, etc.	64		64							8	2	3	8	1	2	40
Printing and newspapers	80		80						4	15	8	14	4	8	16	11
Restaurants	329	22	84	28	192	3				74	158	36	21	19	12	9
Slaughtering and meat packing	209		12	77	120						3	8	68	90	20	20
Stoves and furnaces	21		21								1	2	5	4	7	2
Tinware and sheet metal	40		40							4			2	2	13	19
Miscellaneous	39	1	31	7					4	7	5	2	7	4	1	9
Totals	1987	46	992	595	349	3	2	1	24	345	268	202	394	308	214	231
Wholesale:																
Commission merchants	61	1	23	14	23					2	6	15	27	6		5
Drugs	15		15							1	1	3	5	1		4
Groceries	120		17	87	4	5	7			5		12	41	24	7	31

Hardware	128	------	17	45	66	------	------	------	2	2	8	26	25	40	16	9
Miscellaneous	97	1	5	74	17	------	------	------	------	2	1	2	42	30	11	9
Totals	421	2	77	220	110	5	7	------	2	12	16	58	140	101	34	58
Retail:																
Automobile supplies	31	------	16	15	------	------	------	------	------	4	3	2	5	9	3	5
Clothing	349	------	277	54	18	------	------	1	36	38	43	60	47	41	28	55
Department stores	216	8	180	27	------	------	1	8	33	77	32	11	34	8	4	9
Drug stores	27	------	2	------	25	------	------	------	------	7	2	4	------	------	12	2
Dry goods	119	------	80	39	------	------	------	------	22	31	19	13	23	6	------	5
Furniture	106	------	13	82	11	------	------	------	2	------	9	16	32	22	16	9
Groceries	83	------	24	35	24	------	------	------	------	7	9	25	20	10	10	2
Hardware	5	------	------	------	5	------	------	------	------	------	------	1	------	------	3	1
Millinery	68	------	67	1	------	------	------	15	10	18	9	4	5	4	------	3
Music and musical instruments	35	------	11	24	------	------	------	------	------	5	4	1	9	3	1	12
Stationery	40	1	29	8	2	------	------	------	3	20	10	4	------	3	------	------
Miscellaneous	20	------	7	3	10	------	------	------	3	1	2	4	2	5	2	1
Totals	1099	9	706	288	95	------	1	24	109	208	142	145	177	111	79	104
Miscellaneous:																
Feed and fuel	26	1	------	25	------	------	------	------	------	------	------	------	------	15	2	9
Lumber and shipping	81	------	------	81	------	------	------	------	------	------	------	12	34	25	------	10
Teaming, livery and storage	88	1	3	5	79	------	------	------	------	1	------	5	73	7	1	1
Totals	195	2	3	111	79	------	------	------	------	1	------	17	107	47	3	20
Recapitulation:																
Manufacturing	1987	46	992	595	349	3	2	1	24	345	268	202	394	308	214	231
Wholesale	421	2	77	220	110	5	7	------	2	12	16	58	140	101	34	58
Retail	1099	9	706	288	95	------	1	24	109	208	142	145	177	111	79	104
Miscellaneous	195	2	3	111	79	------	------	------	------	1	------	17	107	47	3	20
Grand totals	3702	59	1778	1214	633	8	10	25	135	566	426	422	818	567	330	413
Total males	2626	12	749	1214	633	8	10	10	57	122	222	250	712	535	324	394
Total females	1076	47	1029	------	------	------	------	15	78	444	204	172	106	32	6	19

TABLE No. 42. CITY OF SAN DIEGO.

Female Employees. Hours of Labor and Wages. (Tabulated by industry.)

INDUSTRY.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing:																
Awnings, tents, etc.	3		3									3				
Bakery products	14	1	13							6	3	4	1			
Cigars and cigarettes	21		21							19			2			
Clothing	1		1								1					
Confectionery	81	22	59						10	43	16	11	1			
Dyeing and cleaning	5		5							1		4				
Electrical goods and supplies	4		4									4				
Flouring mill products	1		1									1				
Jewelry	6		6						1			3	1	1		
Laundries	204		204						1	135	39	28	1			
Lumber and milling	4		4										3			1
Mattresses, beds, etc.	5		5							1	1	2		1		
Plumbing, gasfitting, etc.	3		3									2	1			
Printing and newspapers	19		19						1	11	3	3	1			
Restaurants	86	20	66							53	26	4	2			1
Slaughtering and meat packing	10		10									4	4	2		
Stoves and furnaces	1		1									1				
Miscellaneous	17		17						2	4	3	1	6			1
Totals	485	43	442						15	273	92	75	23	4		3
Wholesale:																
Commission merchants	7	1	6								1	6				
Drugs	2		2										2			
Groceries	16		16							2		3	9		1	1
Hardware	10		10								1	6	1	2		
Miscellaneous	4	1	3							2		1	1			
Totals	39	2	37							4	2	16	13	2	1	1
Retail:																
Automobile supplies	6		6							1	1	2	1	1		
Clothing	166		166						6	28	35	43	27	17	1	9
Department stores	148		148						28	68	25	6	14	3	2	2

Drug stores	2	-----	2	-----	-----	-----	-----	-----	-----	-----	1	1	-----	-----	-----	-----
Dry goods	78	-----	78	-----	-----	-----	-----	-----	18	27	16	3	14	-----	-----	-----
Furniture	13	-----	13	-----	-----	-----	-----	-----	-----	-----	4	5	3	-----	-----	1
Groceries	24	-----	24	-----	-----	-----	-----	-----	-----	4	6	11	2	-----	1	-----
Millinery	66	-----	66	-----	-----	-----	-----	15	10	18	9	4	4	4	-----	2
Music and musical instruments	11	-----	11	-----	-----	-----	-----	-----	-----	2	3	1	4	-----	-----	1
Stationery	28	-----	28	-----	-----	-----	-----	-----	1	17	8	2	-----	-----	-----	-----
Miscellaneous	5	-----	5	-----	-----	-----	-----	-----	-----	1	2	1	1	-----	-----	-----
Totals	547	-----	547	-----	-----	-----	-----	15	63	166	110	79	70	25	4	15
Miscellaneous:																
Feed and fuel	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	-----
Teaming, livery and storage	4	1	3	-----	-----	-----	-----	-----	-----	1	-----	2	-----	1	-----	-----
Totals	5	2	3	-----	-----	-----	-----	-----	-----	1	-----	2	-----	1	1	-----
Recapitulation:																
Manufacturing	485	43	442	-----	-----	-----	-----	-----	15	273	92	75	23	4	-----	3
Wholesale	39	2	37	-----	-----	-----	-----	-----	-----	4	2	16	13	2	1	1
Retail	547	-----	547	-----	-----	-----	-----	15	63	166	110	79	70	25	4	15
Miscellaneous	5	2	3	-----	-----	-----	-----	-----	-----	1	-----	2	-----	1	1	-----
Grand totals	1076	47	1029	-----	-----	-----	-----	15	78	444	204	172	106	32	6	19

TABLE No. 43. MISCELLANEOUS TOWNS.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Bakery Products.	36	establishments.														
Manufacturing:																
Bakers	108		1	86	21							3	9	25	49	22
Bakers, apprentices	10			9	1						3	2	5			
Bakers, helpers	29			17	12					4	16	4	5			
Candy makers	2			2							1					1
Chocolate dippers (F.)	2		2								2					
Cooks	7				6	1				1		1	3	1		1
Cooks (F.)	2	1	1							1		1				
Cooks, helpers	4			1	3					1	2	1				
Drivers	51			36	15						6	16	7	2	18	2
Ice cream makers	1				1										1	
Kitchen help	6				5		1			3	2		1			
Kitchen help (F.)	2		2							2						
Managers and foremen	2				2											2
Porters and packers	1				1							1				
Soda dispensers	2				2									1	1	
Stablemen	5					3	2				1	1		2	1	
Waiters	9				9						3	6				
Waitresses	31	2	29							24	7					
General help	10		1	3	6							2	4	2	2	
Clerical:																
Bookkeepers	3		1	2									2		1	
Bookkeepers (F.)	2		2								1	1				
Errand boys	2			2					1		1					
Office clerks	2				2								1		1	
Office clerks (F.)	4		4								1	3				
Salesmen	22		3	1	17		1			3	4	4	8	1	2	
Saleswomen	34	6	28						5	13	13	3				
Shipping clerks	4			4							1					3
Totals	357	9	74	163	103	4	4		6	52	64	49	45	34	76	31

Blacksmithing and Carriage Repairing.	4	establishments.														
Manufacturing:																
Blacksmiths	10			2	8									6	4	
Blacksmiths, helpers	7			2	5								2	5		
Machinists	1				1										1	
Managers and foremen	1			1												1
Painters	1				1									1		
Wood workers	3			1	2										3	
Clerical:																
Stenographers (F.)	1		1									1				
Totals	24		1	6	17							1	2	12	8	1
Boots and Shoes.	3	establishments.														
Manufacturing:																
Boot and shoe workers	154			154					8	23	32	28	20	27	11	5
Boot and shoe workers (F.)	47		47						12	24	6	4		1		
Machinists	1		1										1			
Managers and foremen	11			11										3	1	7
Packers (F.)	2		2						1	1						
Porters and packers	12			11			1			3		4	5			
Clerical:																
Bookkeepers	1			1											1	
Bookkeepers (F.)	3		3									2		1		
Office clerks	2			2						2						
Office clerks (F.)	1		1							1						
Totals	234		54	179			1		21	54	38	38	26	32	13	12
Brick, Tile, Cement, etc.	5	establishments.														
Manufacturing:																
Chemists	5				5								1		2	2
Engineers	5				5									1		4
Firemen	2						2								2	
Kilnmen	6				2		4						1	1	4	
Managers and foremen	18				11		7							1	2	15
Mechanics	13				5		8								5	8
Teamsters	5			5										3	2	
General help	594			139	321	2	132				6	342	87	99	53	7

TABLE No. 43. MISCELLANEOUS TOWNS.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical:																
Bookkeepers	1				1											1
Draughtsmen	1				1											1
Shipping clerks	1				1									1		
Stenographers (F.)	2		2							1			1			
Totals	653		2	144	352	2	153			1	6	342	90	106	70	38
Clothing.	12	establishments.														
Manufacturing:																
Cutters	13		7	6											10	3
Cutters, apprentices	3		3								2	1				
Machinists	3		1	2										1	2	
Managers and foremen	7		3	4											3	4
Managers and forewomen	8		8								1	2	2	3		
Operators	15		1	14					1			3		8		3
Operators (F.)	208		208						19	100	39	27	17	3	2	1
Porters and packers	8		5	2			1					7	1			
Pressers and cleaners	8		3	5								2	3	2		1
Pressers, (F.)	10		10							6	2	2				
Seamstresses	64		64						2	35	13	11	1	2		
Tailors	20		2	18									6	3	5	6
Tailors (F.)	5		5							1	2	2				
Teamsters	3			3										1		2
General help (F.)	10		10						6	2	2					
Clerical:																
Bookkeepers (F.)	3		3								1	1	1			
Errand boys	2		1	1					1	1						
Office clerks (F.)	4		4							2	2					
Salesmen	3		2	1										1		2
Shipping clerks	6			6					1	2		3				
Stenographers (F.)	1		1								1					
Totals	404		341	62			1		30	149	65	61	31	24	22	22

Confectionery.	3	establishments.														
Manufacturing:																
Candy makers	17			17					1	1	3	2	3	1	3	3
Candy makers, helpers (F.)	29		29						11	10	5	3				
General help	4				4							2		1		1
Clerical:																
Office clerks	3			3						1					1	1
Office clerks (F.)	2		2								1	1				
Totals	55		31	20	4				12	12	9	8	3	2	4	5
Construction Work, General Contracting, etc.	5	establishments.														
Manufacturing:																
Artists (F.)	6		6							2	2		2			
Electricians	9		9												9	
Electricians, apprentices	2		2						2							
Engineers	1			1												1
Gasfitters	2		2											2		
Managers and foremen	2			2												2
Paper hangers	6		6												6	
General help	21			21								9	12			
Clerical:																
Bookkeepers	1			1												1
Bookkeepers (F.)	1		1									1				
Office clerks	7			6	1								1	5	1	
Salesmen	1			1												1
Stenographers (F.)	1		1								1					
Totals	60		27	32	1				2	2	3	10	15	7	16	5
Dairy Products.	12	establishments.														
Manufacturing:																
Butter makers	25		3	4	15	2	1					1	3	7	1	13
Drivers	39			21	18					1	1		16	8	10	3
Engineers	5			4	1								1	1	2	1
Firemen	2			2									2			
Ice cream makers	3				2		1					1				2
Managers and foremen	8		2	3	3											8
Packers (F.)	8		8							4	4					
Stablemen	4				4							1	2	1		
General help	18		6		12								13	5		

TABLE No. 43. MISCELLANEOUS TOWNS.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $21.99.	$25 and over.
Clerical:																
Bookkeepers	7		2	3	2							1		3		3
Bookkeepers (F.)	8		8							2	1	1	1		3	
Buyers	3				3										2	1
Collectors	1			1										1		
Errand boys	1		1						1							
Salesmen	4		2		2									2		2
Saleswomen	5		5						1		4					
Shipping clerks	1		1												1	
Stenographers (F.)	3		3							1	1		1			
Totals	145		41	38	62	2	2		2	8	11	5	39	28	19	33
Drugs and Chemicals.	10	establishments.														
Manufacturing:																
Carpenters	19				19										19	
Chemists	6		6										1			5
Engineers	8			2	5		1						1	3		4
Firemen	2				2								2			
Laboratory help (F.)	10		10							5	5					
Lead burners	7		1		6										5	2
Managers and foremen	17		5	4	8									1	2	14
Mechanics	22		1		21							1	4	2	10	5
Packers (F.)	11		11								11					
Soap makers	1				1											1
Storekeepers	4				4								2	2		
General help	190		6	25	136	8	15					140	31	9	10	
Clerical:																
Bookkeepers	3		3												2	1
Bookkeepers (F.)	2		2										1			1
Cashiers	2		2													2
Office clerks	9		7	2							1	1	1	2		4

Salesmen	7		7													7
Stenographers (F.)	4		4									3	1			
Totals	324		65	33	202	8	16			5	17	145	44	19	48	46
Dyeing and Cleaning.	6	establishments.														
Manufacturing:																
Cleaners	9			6	3								5	2	1	1
Drivers	7			6	1								1	5		1
Dyers	1			1									1			
Managers and foremen	2			1			1									2
Pressers	8			7	1							1	4		3	
Pressers (F.)	17		17							1	9	6		1		
Tailors	2			2											1	1
Tailors (F.)	1		1									1				
Clerical:																
Bookkeepers	1			1										1		
Errand boys	1			1						1						
Office clerks (F.)	4		4							1	2		1			
Totals	53		22	25	5		1			3	11	8	12	9	5	5
Elevators.	1	establishment.														
Manufacturing:																
Blacksmiths	1		1													1
Casting chippers	1		1											1		
Coremakers	1		1												1	
Cupolamen	1		1											1		
Draughtsmen	1		1													1
Flaskmakers	1		1											1		
Foundry helpers	3		3										3			
Machinists	20		20												20	
Machinists, apprentices	2		2							2						
Machinists, helpers	1		1										1			
Managers and foremen	1		1													1
Molders	6		6												6	
Molders, apprentices	1		1							1						
Clerical:																
Bookkeepers	1		1													1
Totals	41		41							3			4	3	27	4

TABLE No. 43. MISCELLANEOUS TOWNS.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Engines.	3	establishments.														
Manufacturing:																
Casting chippers	2			2									2			
Cupolamen	1			1									1			
Machinists	43		33	10								2	3	2	36	
Machinists, apprentices	11		10	1					9		2					
Machinists, helpers	6		6									6				
Managers and foremen	7		5	2												7
Molders	4			4											4	
Molders, apprentices	1			1							1					
Pattern makers	3		2	1											1	2
Teamsters	1			1							1					
General help	4		3				1						4			
Clerical:																
Bookkeepers	2		1	1										1		1
Stenographers (F.)	1	1								1						
Totals	86	1	60	24			1		9	1	4	8	10	3	41	10
Explosives.	4	establishments.														
Manufacturing:																
Acid men	16				5	7	4						2	2	10	2
Chemists	5		4		1											5
Engineers	19		3	2	4		10						4	2	8	5
Firemen	3				1		2					1			2	
Furnace men	4					4										4
Managers and foremen	32		4	12	15	1							4	4	1	23
Mechanics	77		1	49	21	6				1	1	8	11	13	26	17
Mill hands	30			25	3		2				5	15	6		1	3
Packers (F.)	8		8								7	1				
Porters and packers	23				23								22		1	
Powder men	36			1	35								35	1		
Shell loaders	31			3	28							1	30			
Watchmen	6				5		1						5	1		

General help	214			74	113	19	8			4	25	95	41	21	16	12
General help (F.)	31		31							18	5	1	6	1		
Clerical:																
Bookkeepers	5		5													5
Errand boys	3		1	2				1		2						
Office clerks	8		6		1		1						1	2		5
Office clerks (F.)	1		1								1					
Shipping clerks	2			1	1											2
Stenographers	1		1											1		
Stenographers (F.)	5		5								2		2		1	
Telephone girls	2	2								2						
Totals	562	2	70	169	256	37	28	1		27	46	122	169	48	66	83
Fertilizers	2	establishments.														
Manufacturing:																
Chemists (F.)	1		1												1	
Engineers	2			1	1									1		1
Machinists	1			1											1	
Managers and foremen	4			1	3											4
General help	95			64	31							84	11			
Clerical:																
Office clerks	1			1											1	
Totals	104		1	68	35							84	11	1	3	5
Flouring Mill Products.	6	establishments.														
Manufacturing:																
Carpenters	3			3										2	1	
Chemists	2		2													2
Engineers	2		1	1									1			1
Firemen	6			3	3									5	1	
Laboratory help (F.)	3		3								2	1				
Managers and foremen	7			2	5							1		3		3
Millers	6			2	4								1		1	4
Millwrights	1			1												1
Teamsters	11			4	7								11			
Warehousemen	3				3										1	2
Watchmen	2				1		1							2		
General help	174			3	171							9	148	16	1	

TABLE No. 43. MISCELLANEOUS TOWNS.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical:																
Bookkeepers	7			3	4							1		1		5
Bookkeepers (F.)	1	1									1					
Cashiers	1			1												1
Office clerks	6			2	4								2	3	1	
Salesmen	4			4												4
Stenographers (F.)	2		2											2		
Totals	241	1	8	29	202		1				3	12	163	34	6	23
Foundries.	5	est	ablis	hmen	ts.											
Manufacturing:																
Blacksmiths	2			2										1	1	
Blacksmiths, helpers	1			1								1				
Casting chippers	17		3	14								11	2	3	1	
Chemists	1		1													1
Core makers	14		9	5										3	10	1
Core makers, apprentices	8			8						4		3	1			
Engineers	2			2										1		1
Flask makers	2			2									1	1		
Foundry helpers	3			3								1	2			
Machinists	8			8									1	7		
Machinists, apprentices	1			1						1						
Machinists, helpers	2			2								1	1			
Managers and foremen	20		6	14											2	18
Molders	59		27	32										3	45	11
Molders, apprentices	10		7	3						3	3	2	2			
Molders, helpers	29			29								25	3	1		
Pattern makers	7		1	6											2	5
Pattern makers, apprentices	3		2	1						3						
Teamsters	2			2									2			
General help	66		16	50						1	6	28	23	5	3	
Clerical:																
Bookkeepers	3		3												1	2
Bookkeepers (F.)	1		1								1					

Cashiers	1		1													1
Errand boys	2		2						1	1						
Office clerks (F.)	1		1							1						
Salesmen	1			1												1
Shipping clerks	2			2								1			1	
Stenographers (F.)	2		2								1	1				
Stock clerks	1			1							1					
Totals	271		82	189					1	14	12	74	38	25	66	41
Garages and Repair Shops.	7	establishments.														
Manufacturing:																
Garage help	6		1			3	2						3	3		
Machinists	2		1	1											2	
Machinists, apprentices	5		1	4					1	3		1				
Machinists, helpers	4		2	1	1						1		2	1		
Managers and foremen	7		1	2	2		2								1	6
Mechanics	10		6	4										2	1	7
Clerical:																
Bookkeepers	2		1	1							1					1
Bookkeepers (F.)	1		1								1					
Office clerks (F.)	3		3								3					
Salesmen	2			2												2
Totals	42		17	15	3	3	4		1	3	6	1	5	6	4	16
Gloves.	3	establishments.														
Manufacturing:																
Cutters	42			42						8	4	10	2	9	8	1
Finishers	11			11								9	2			
Glove makers	60			60					4	7	4	5	9	11	10	10
Glove makers (F.)	135		135						3	24	67	30	5	6		
Machinists	1			1											1	
Managers and foremen	4		1	3												4
Managers and forewomen	2		2									2				
Packers (F.)	5		5							4	1					
Porters and packers	4		3				1					3	1			
General help	2			2							2					
Clerical:																
Bookkeepers (F.)	2	1	1							1				1		
Errand boys	3			3					1	1	1					
Office clerks	3			3								1				2

TABLE No. 43. MISCELLANEOUS TOWNS.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY. Less than 8	8	9	10	11	12 and over.	WAGES PER WEEK. Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical—Continued.																
Office clerks (F.)	3		3							1	1		1			
Stenographers (F.)	3		3								3					
Totals	280	1	153	125			1		8	46	83	60	20	27	19	17
Ice.	4	establishments.														
Manufacturing:																
Engineers	6		2				4							3	2	1
Ice pullers	3		1				2						1	2		
Managers and foremen	3				2	1										3
Teamsters	13		4		9								4	9		
General help	4				4								1	3		
Clerical:																
Bookkeepers	3		1		2										2	1
Salesmen	1				1											1
Totals	33		8		18	1	6						6	17	4	6
Ink.	2	establishments.														
Manufacturing:																
Chemists	1			1												1
Coopers	2			2										2		
Engineers	1			1												1
Labelers (F.)	3		3							2	1					
Managers and foremen	5			5											2	3
General help	26			26						1			25			
Clerical:																
Bookkeepers	1			1											1	
Totals	39		3	36						3	1		25	2	3	5

Laundries.	48	est	ablis	hmen	ts.											
Manufacturing:																
Drivers	130		17	85	28					1	14	10	26	21	20	38
Engineers	23		1	11	10	1						3	5	7	5	3
Ironers, hand	47		6	15	26					3	29	5	9	1		
Ironers, hand (F.)	221		221							50	122	36	13			
Ironers, machine	29		4	20	5					11	5	7	5	1		
Ironers, machine (F.)	94		94							52	33	8	1			
Managers and foremen	21		3	14	4									2	1	18
Managers and forewomen	3		3								2		1			
Manglers	23		2	15	6				1	8	10		2	1		1
Manglers (F.)	204		204						10	179	14	1				
Markers and distributors	85		24	52	9					5	6	10	28	30	4	2
Markers and distributors (F.)	28		28							7	11	5	1	4		
Seamstresses	4		4							1	3					
Shirt finishers	8		3	5							1	3	3	1		
Shirt finishers (F.)	10		10							2	6	2				
Shirt folders (F.)	11		11						2	4	4	1				
Starchers	31		5	24	2					2	3	12	10	3	1	
Starchers (F.)	26		26							16	7	3				
Washroom hands	81		14	49	18				2	3	11	18	16	22	7	2
General help	8		1	2	4		1			4			2			2
General help (F.)	2		2								1	1				
Clerical:																
Bookkeepers	3			2	1							1			1	1
Bookkeepers (F.)	17		17							2	6	3	2	3		1
Collectors	1			1											1	
Office clerks (F.)	10		10						1	4	4	1				
Stenographers (F.)	3		3							2			1			
Totals	1123		713	295	113	1	1		16	356	292	130	125	96	40	68
Leather and Leather Goods.	12	est	ablis	hmen	ts.											
Manufacturing:																
Engineers	13			13									6	3	1	3
Firemen	6		3	3									4	2		
Managers and foremen	28			27	1								5	4	4	15
Mechanics	10		2	8									5	3	1	1
Tanners and curriers	239			202	37					1	9	84	81	61	3	
Teamsters	16			16								12	3	1		
General help	351			347			4		2	2	21	280	37	3	3	3
General help (F.)	6		6						1	5						

TABLE No. 43. MISCELLANEOUS TOWNS.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Clerical:																
Bookkeepers	4	1		3											2	2
Bookkeepers (F.)	5	5									2	2	1			
Office clerks	3	1		2						1				1		1
Stenographers	2			2									2			
Stenographers (F.)	3		3								1			1	1	
Totals	686	7	14	623	38		4		3	9	33	378	144	79	15	25
Liquors, Malt.	12	establishments.														
Manufacturing:																
Bottlers	36		30	4	2								9	21	3	3
Brewers	21		19		2								1	1	15	4
Brewers, apprentices	2		2									2				
Brewmasters	5		5													5
Drivers, bottle	29		12	1	16								6	11	3	9
Drivers, keg	21		10	1	10								3	8	6	4
Engineers	3				3										1	2
Managers and foremen	4		1		3											4
Mechanics	4		4												1	3
Stablemen	5		2		1	2							2	1	2	
General help	15		14		1							3	9	1		2
Clerical:																
Bookkeepers	5		2	3												5
Bookkeepers (F.)	3		3									1	1	1		
Salesmen	2		2													2
Totals	155		106	9	38	2						6	31	44	31	43
Lumber and Milling.	40	establishments.														
Manufacturing:																
Bench hands	176		161	4	11								4	15	91	66
Bench hands, apprentices	21		21						1	1	2	8	6	2	1	
Cabinet makers	11			9	2									2	8	1

Cabinet makers, apprentices	5	----	2	3	----	----	----	----	----	1	2	----	2	----	----	----
Carpenters	11	----	4	2	5	----	----	----	----	----	----	----	----	7	4	----
Draughtsmen	17	----	13	2	2	----	----	----	----	----	----	----	----	1	2	14
Draughtsmen, apprentices	3	----	2	----	1	----	----	----	----	----	----	2	1	----	----	----
Engineers	15	----	3	7	5	----	----	----	----	----	----	----	1	3	4	7
Firemen	9	----	1	3	5	----	----	----	----	----	----	3	3	1	2	----
Glaziers	9	----	7	2	----	----	----	----	----	----	1	----	2	2	2	2
Lumber hands	466	----	10	133	323	----	----	----	----	----	3	173	231	55	4	----
Managers and foremen	83	----	17	44	20	----	2	----	----	----	----	----	2	4	5	72
Mechanics	29	----	4	8	17	----	----	----	----	----	----	3	2	6	6	12
Mill hands	312	----	63	77	172	----	----	----	----	9	63	140	66	15	12	7
Millwrights	13	----	1	2	10	----	----	----	----	----	----	----	----	2	6	5
Planers	49	----	15	7	27	----	----	----	----	----	----	3	14	19	12	1
Sanders	12	----	7	1	4	----	----	----	----	----	----	1	6	1	2	2
Sash and door makers	79	----	60	19	----	----	----	----	----	12	17	7	5	7	26	5
Sawyers	77	----	20	9	48	----	----	----	----	----	----	6	21	25	14	11
Stair builders	4	----	3	----	1	----	----	----	----	----	----	----	----	1	3	----
Stickers	57	----	45	7	5	----	----	----	----	----	----	12	3	8	15	19
Tallymen	38	----	----	27	11	----	----	----	----	----	----	1	5	12	17	3
Teamsters	104	----	7	59	38	----	----	----	----	----	4	28	48	18	5	1
Saw filers	1	----	----	----	1	----	----	----	----	----	----	----	----	----	----	1
Stablemen	4	----	----	----	3	----	1	----	----	----	----	----	4	----	----	----
Watchmen	13	----	----	4	5	----	4	----	----	----	----	7	4	1	1	----
Wood turners	6	----	4	1	1	----	----	----	----	----	----	----	----	----	4	2
General help	33	----	4	25	4	----	----	----	----	----	----	18	8	3	2	2
General help (F.)	16	----	16	----	----	----	----	----	----	16	----	----	----	----	----	----
Clerical:																
Bookkeepers	33	----	10	20	3	----	----	----	----	2	----	----	2	----	7	22
Bookkeepers (F.)	4	----	4	----	----	----	----	----	----	1	----	1	1	1	----	----
Errand boys	3	----	1	2	----	----	----	----	1	----	2	----	----	----	----	----
Office clerks	29	----	7	20	2	----	----	----	----	1	1	1	8	11	3	4
Office clerks (F.)	6	----	6	----	----	----	----	----	----	2	2	----	2	----	----	----
Salesmen	26	----	7	13	6	----	----	----	----	----	----	----	2	2	1	21
Stenographers (F.)	16	----	16	----	----	----	----	----	1	----	1	2	7	3	2	----
Totals	1790	----	541	510	732	----	7	----	3	45	98	416	460	227	261	280
Machinery.	17	establishments.														
Manufacturing:																
Blacksmiths	21	----	7	11	3	----	----	----	----	----	----	----	1	3	13	4
Blacksmiths, apprentices	2	----	----	2	----	----	----	----	----	----	----	----	2	----	----	----
Blacksmiths, helpers	37	----	5	25	7	----	----	----	----	1	2	6	14	13	1	----
Boiler makers	6	----	4	----	2	----	----	----	----	----	----	----	----	----	5	1

TABLE No. 43. MISCELLANEOUS TOWNS.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Boiler makers, apprentices	1	------	1	------	------	------	------	------	------	------	1	------	------	------	------	------
Boiler makers, helpers	11	------	4	------	7	------	------	------	------	------	------	4	3	4	------	------
Casting chippers	8	------	8	------	------	------	------	------	------	------	------	1	6	1	------	------
Core makers	11	------	10	1	------	------	------	------	------	------	------	------	------	------	11	------
Cupolamen	8	------	2	6	------	------	------	------	------	------	------	1	5	1	1	------
Daughtsmen	18	------	17	1	------	------	------	------	------	------	------	------	2	3	3	10
Draughtsmen, apprentices	8	------	8	------	------	------	------	------	------	------	5	1	------	2	------	------
Flask makers	3	------	2	1	------	------	------	------	------	------	------	1	------	2	------	------
Foundry helpers	36	------	------	36	------	------	------	------	------	------	------	16	20	------	------	------
Machine hands	79	------	42	37	------	------	------	------	1	------	------	27	8	43	------	------
Machinists	193	------	122	55	16	------	------	------	------	------	------	------	2	52	132	7
Machinists, apprentices	58	------	31	23	4	------	------	------	12	26	7	11	2	------	------	------
Machinists, helpers	69	------	28	33	8	------	------	------	------	------	5	26	32	6	------	------
Managers and foremen	36	------	14	21	1	------	------	------	------	------	------	------	4	1	4	27
Mechanics	32	------	15	14	3	------	------	------	------	------	------	5	4	4	12	7
Molders	46	------	29	11	6	------	------	------	------	------	------	------	1	2	39	4
Molders, apprentices	18	------	14	3	1	------	------	------	------	3	3	3	1	------	8	------
Molders, helpers	21	------	3	15	3	------	------	------	------	------	------	9	8	3	1	------
Pattern makers	20	------	15	4	1	------	------	------	------	------	------	------	------	1	1	18
Pattern makers, apprentices	14	------	9	4	1	------	------	------	2	3	------	2	3	------	------	4
Sheet metal workers	6	------	6	------	------	------	------	------	------	------	------	------	4	1	1	------
Sheet metal workers, helpers	6	------	6	------	------	------	------	------	------	------	------	6	------	------	------	------
Structural iron workers	8	------	------	8	------	------	------	------	------	------	------	------	3	1	4	------
Structural iron workers, helpers	17	------	------	17	------	------	------	------	------	------	------	------	17	------	------	------
Teamsters	3	------	1	2	------	------	------	------	------	------	------	------	3	------	------	------
Watchmen	4	------	------	2	------	------	2	------	------	------	------	1	1	2	------	------
General help	30	------	2	26	2	------	------	------	------	7	2	1	11	9	------	------
Clerical:																
Bookkeepers	11	------	9	2	------	------	------	------	------	------	------	1	------	------	------	10
Bookkeepers (F.)	6	1	5	------	------	------	------	------	------	------	1	3	1	1	------	------
Office clerks	17	------	13	4	------	------	------	------	------	------	------	2	3	3	5	4
Office clerks (F.)	2	------	2	------	------	------	------	------	------	1	1	------	------	------	------	------

Salesmen	8		8											2	4	2
Stenographers (F.)	8		8									5	2	1		
Totals:	882	1	450	364	65		2		15	41	27	132	163	161	245	98
Oils and Grease.	2	establishments.														
Manufacturing:																
Chemists	2		1		1											2
Engineers	4				1		3								4	
Machinists	6				6										6	
Managers and foremen	4			2	2									1	1	2
Mechanics	14		6		8									3	10	1
Watchmen	2						2					1	1			
General help	67		3	1	63							27	32	3	3	2
Clerical:																
Bookkeepers	3			2	1								1	1	1	
Stenographers (F.)	1		1								1					
Totals	103		11	5	82		5				1	28	34	8	25	7
Paper.	1	establishment.														
Manufacturing:																
Electricians	1			1												1
Engineers	2						2						2			
Finishers	22			6			16				1	18	2	1		
Firemen	2						2						2			
Machine hands	13			5			8				3	2	1	5	2	
Managers and foremen	4			4										1		3
Millwrights	5			5										5		
Mitermen	14						14					12		2		
Watchmen	2						2				2					
General help	15			15							6	9				
Clerical:																
Office clerks	2		1	1										1		1
Office clerks (F.)	3		3										2	1		
Totals	85		4	37			44				12	41	9	16	2	5
Pickles, Preserves, Sauces, Etc.	3	establishments.														
Manufacturing:																
Coopers	2				2										2	
Engineers	2			1	1									1	1	

TABLE No. 43. MISCELLANEOUS TOWNS.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing—Continued.																
Managers and foremen	7			5	2									1		6
Packers (F.)	42		42							29	13					
General help	47			30	16		1			2	5	30	5	5		
General help (F.)	8		8							8						
Clerical:																
Bookkeepers (F.)	1		1							1						
Shipping clerks	1			1										1		
Totals	110		51	37	21		1			40	18	30	5	8	3	6
Plumbing.	7	establishments														
Manufacturing:																
Managers and foremen	1		1													1
Plumbers	22		22											2	1	19
Plumbers, apprentices	2		2							2						
Plumbers, helpers	7		7									3	4			
Sheet metal workers	4		3	1											4	
Teamsters	3		1		2						1	1	1			
Tinners	13		13												6	7
Tinners, helpers	4		4							1	2	1				
General help	35		10	21			4			2		8	11	10	4	
Clerical:																
Office clerks	2		2										1	1		
Office clerks (F.)	4		4						1		1		2			
Salesmen	4				4								1	2	1	
Totals	101		69	22	6		4		1	5	4	13	20	15	16	27
Printing and Binding.	56	establishments														
Manufacturing:																
Bindery girls	38		38						6	26	4	2				
Bookbinders	16		6	10								1	9		4	2

Bookbinders, apprentices	6		3	3					1	1	2	2				
Carriers	89	89						18	38	8	25					
Compositors	120	7	96	17							1		13	34	42	30
Compositors (F.)	9		9							2		1	2	2	2	
Compositors, apprentices	31	1	27	3					9	6	6	6	3	1		
Engravers	3			3								1	1	1		
Linotype operators	82		78	4										5	25	52
Linotype operators (F.)	8		8									1	1	1	2	3
Linotype operators, apprentices	1		1							1						
Mailing room help	11	4	6	1					4	1	1	4			1	
Managers and foremen	56		48	8										2	7	47
Paper cutters	1		1										1			
Porters and packers	4		4								1	2	1			
Press feeders	28		20	8					2	4	6	5	10			1
Press feeders (F.)	4		4							1	1	2				
Pressmen	61		51	10							2	5	11	10	19	14
Pressmen, apprentices	13		12	1					2	2	5		2	2		
Proofreaders	2		2											1		1
Proofreaders (F.)	11		11								2	5	2	2		
Reporters and editors	72		67	5						3	3	1	6	22	7	30
Reporters (F.)	15		15							2	2	3	4	1		3
Stereotypers	6		6												1	5
Stereotypers, helpers	9		5	4						2	1	3	3			
Teamsters	1			1								1				
Watchmen	1						1						1			
Clerical:																
Bookkeepers	15		11	4							1	1	2	7		4
Bookkeepers (F.)	15	1	14						1	4	5	2	3			
Collectors	7		6	1								3	2	1	1	
Errand boys	12	4	6	2				1	8	3						
Office clerks	9		6	3					1		2		4	1	1	
Office clerks (F.)	20		20							2	11	5		1		1
Solicitors	36		34	2								1	6	14	2	13
Stenographers	2		1	1								1	1			
Stenographers (F.)	11		11							1	6	3	1			
Totals	825	106	627	91			1	19	72	69	87	61	89	108	114	206
Restaurants.	21	establishments.														
Manufacturing:																
Cooks	13			1	4	2	6					3	1	3	4	2
Cooks (F.)	5	3	2								1	2	2			
Cooks, helpers	11		1	2	2	5	1			2	6	2	1			

TABLE No. 43. MISCELLANEOUS TOWNS.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Restaurants—Continued.																
Kitchen help	19	------	2	4	9	2	2	------	2	5	12	------	------	------	------	------
Kitchen help (F.)	2	------	2	------	------	------	------	------	2	------	------	------	------	------	------	------
Managers and foremen	1	------	------	1	------	------	------	------	------	------	------	------	------	------	------	1
Waiters	26	------	------	2	8	8	8	------	------	1	10	13	2	------	------	------
Waitresses	39	16	23	------	------	------	------	------	3	22	10	4	------	------	------	------
General help	4	------	------	------	3	1	------	------	------	1	1	------	------	1	1	------
Totals	120	19	30	10	26	18	17	------	7	31	40	24	6	4	5	3
Rubber.	1	est	ablis	hmen	t.											
Manufacturing:																
Engineers	2	------	------	------	2	------	------	------	------	------	------	------	------	------	2	------
Mechanics	10	------	------	------	10	------	------	------	------	------	------	------	2	------	5	3
Rubber workers	111	------	------	------	111	------	------	------	------	------	26	47	28	3	1	6
Rubber workers (F.)	9	------	9	------	------	------	------	------	------	------	9	------	------	------	------	------
Watchmen	2	------	------	------	2	------	------	------	------	------	------	------	1	1	------	------
Clerical:																
Office clerks	1	------	------	------	1	------	------	------	------	------	------	------	------	------	------	1
Stenographers (F.)	1	------	1	------	------	------	------	------	------	------	------	------	------	------	1	------
Totals	136	------	10	------	126	------	------	------	------	------	35	47	31	4	9	10
Salt.	1	est	ablis	hmen	t.											
Manufacturing:																
Engineers	5	------	------	------	5	------	------	------	------	------	------	------	------	4	------	1
Firemen	2	------	------	------	------	------	2	------	------	------	------	------	2	------	------	------
Managers and foremen	1	------	------	1	------	------	------	------	------	------	------	------	------	1	------	------
Packers (F.)	15	------	15	------	------	------	------	------	------	15	------	------	------	------	------	------
Clerical:																
Bookkeepers (F.)	2	------	2	------	------	------	------	------	------	------	1	------	1	------	------	------
Totals	25	------	17	1	5	------	2	------	------	15	1	------	3	5	------	1

Silk.	1	establishment.														
Manufacturing:																
Engineers	2				1		1						1		1	
Managers and foremen	4			4										2		2
Operators	21			21						7	8	1	3	2		
Operators (F.)	90		90						5	38	42	4	1			
Watchmen	1						1						1			
Clerical:																
Bookkeepers (F.)	2		2								1	1				
Totals	120		92	25	1		2		5	45	51	6	6	4	1	2
Slaughtering and Meat Packing.	5	establishments.														
Manufacturing:																
Coolermen	2			1	1								1	1		
Killers and dressers	7			3	4								1		6	
Meat cutters	9				1	5	3						2	1	5	1
Sausage makers	2				1	1								1	1	
Teamsters	9			1	5	1	2					1	4	4		
Vaqueros	1				1									1		
Clerical:																
Bookkeepers	1				1											1
Bookkeepers (F.)	1	1										1				
Cashiers (F.)	1		1								1					
Errand boys	1			1					1							
Salesmen, buyers, etc.	2			2								1				1
Totals	36	1	1	8	14	7	5		1		1	3	8	8	12	3
Smelting.	2	establishments.														
Manufacturing:																
Convertermen	10		10									3	3	2	1	1
Engineers	12		10	2											9	3
Firemen	4		4											3	1	
Furnacemen	24		24										6	12	6	
Managers and foremen	27		20	7										1	5	21
Mechanics	46			46								5	14	5	19	3
Refiners	22		22										11		11	
Watchmen	5			5											5	
General help	233		116	115			2				1	87	99	27	13	6

TABLE No. 43. MISCELLANEOUS TOWNS.

Manufacturing Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Smelting—Continued.																
Clerical:																
Office clerks	3	------	3	------	------	------	------	------	------	------	------	------	------	1	1	1
Totals	386	------	209	175	------	------	2	------	------	------	1	95	133	51	71	35
Soda and Mineral Water.	5	establishments.														
Manufacturing:																
Bottlers	7	------	1	6	------	------	------	------	1	------	------	4	------	1	------	1
Managers and foremen	2	------	1	1	------	------	------	------	------	------	------	------	------	------	1	1
Porters and packers	4	------	1	3	------	------	------	------	------	1	------	2	1	------	------	------
Teamsters	3	------	1	2	------	------	------	------	------	------	------	3	------	------	------	------
General help	2	------	------	2	------	------	------	------	------	------	2	------	------	------	------	------
Clerical:																
Bookkeepers	1	------	------	1	------	------	------	------	------	------	------	------	1	------	------	------
Totals	19	------	4	15	------	------	------	------	1	1	2	9	2	1	1	2
Wineries.	4	establishments.														
Manufacturing:																
Bottlers	4	------	------	4	------	------	------	------	------	------	------	------	4	------	------	------
Chemists	2	1	------	1	------	------	------	------	------	------	------	------	------	1	------	1
Coopers	14	------	------	14	------	------	------	------	------	------	------	------	------	------	------	14
Engineers	6	------	6	------	------	------	------	------	------	------	------	------	------	------	5	1
Managers and foremen	9	1	------	8	------	------	------	------	------	------	------	------	------	------	------	9
General help	73	------	------	40	33	------	------	------	------	------	7	28	12	------	25	1
Clerical:																
Bookkeepers (F.)	1	------	1	------	------	------	------	------	------	------	------	------	------	1	------	------
Shipping clerks	1	------	------	1	------	------	------	------	------	------	------	------	------	1	------	------
Totals	110	2	7	68	33	------	------	------	------	------	7	28	16	3	30	26

Miscellaneous.	26	establishments.														
Manufacturing:																
Carpet weavers	18		6	12									1	11	6	
Cotton gin hands	40				40								39	1		
Engineers	9		5	1	1		2							7		2
Feather workers	16			16							3	6	3	1	3	
Feather workers (F.)	21	21							4	4	1		11			1
Fish packers (F.)	16		16										16			
Glass cutters	6				6								1	4		1
Leather workers	5		1	4							1			4		
Managers and foremen	16		3	6	7									2	3	11
Mechanics	25		10	14	1				1	1	1	5	10	1		6
Metal workers	9			9					1		1	2	4	1		
Packers and labelers (F.)	12		12							7		5				
Paper box makers (F.)	14		14							13	1					
Porters and packers	14		12		2					1	3	9	1			
Reed workers	6				6								3	2	1	
Seamstresses	23		23						10	11	1	1				
Soap workers	21		21							2	3	7	6	1	2	
Watchmen	4						4							2	2	
General help	151		8	119	24				1	5	9	19	105	9	3	
General help (F.)	6		6							1	3	2				
Clerical:																
Bookkeepers	1				1										1	
Bookkeepers (F.)	4		4							1	2	1				
Office clerks	14		7	6	1							2	1	3	2	6
Office clerks (F.)	17	14	3						1	3	9	2	1	1		
Salesmen	13		9	1	3							1		1		11
Shipping clerks	7		4	1	2							4	1		1	1
Stenographers (F.)	6		6							1	2	1	2			
Totals	494	35	170	189	94		6		18	50	40	67	205	51	24	39

TABLE No. 44—MISCELLANEOUS TOWNS.

Wholesale Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Wholesale.	3	establishments.														
Bookkeepers	1	------	------	1	------	------	------	------	------	------	------	------	------	------	------	1
Bookkeepers (F.)	1	------	1	------	------	------	------	------	------	------	1	------	------	------	------	------
Managers and foremen	5	------	------	3	2	------	------	------	------	------	------	------	------	------	1	4
Office clerks	2	------	------	2	------	------	------	------	------	------	------	------	------	------	------	2
Porters and packers	10	------	------	------	10	------	------	------	------	------	------	------	10	------	------	------
Salesmen	10	------	3	------	7	------	------	------	------	------	------	------	2	------	2	6
Shipping clerks	3	------	------	------	3	------	------	------	------	------	------	1	------	------	1	1
Stenographers (F.)	5	------	5	------	------	------	------	------	------	------	1	------	2	2	------	------
Teamsters	4	------	------	------	4	------	------	------	------	------	------	1	------	3	------	------
Warehousemen	11	------	------	------	11	------	------	------	------	------	------	------	------	11	------	------
Totals	52	------	9	6	37	------	------	------	------	------	2	2	14	16	4	14

TABLE No. 45—MISCELLANEOUS TOWNS.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Butcher Shop.	11	establishments.														
Bookkeepers	3				2	1						1			1	1
Bookkeepers (F.)	8	4	4						1	1	2	2	2			
Drivers	30			6	18		6			3	2	12	6	6		1
Managers and foremen	1					1										1
Meat cutters	46			6	17	11	12			1		2	2	20	15	6
Office clerks (F.)	2		2							1		1				
Sausage makers	6			1	5									4	2	
General help	2				1	1					1		1			
Totals	98	4	6	13	43	14	18		1	6	5	18	11	30	18	9
Clothing.	13	establishments.														
Alteration hands (F.)	9		9								1	4	3			1
Bookkeepers	3			3									3			
Bookkeepers (F.)	3		3								1		1	1		
Cashiers (F.)	2	1	1						1	1						
Errand boys	4			4					2	2						
Managers and foremen	3			3												3
Millinery workers (F.)	3		3							2						1
Porters and packers	1			1								1				
Salesmen	31			31						5	4		4	10	4	4
Saleswomen	16		16						1	5	5	5				
Stock clerks	2			2								2				
Tailors and pressers	5			5									1	3		1
Totals	82	1	32	49					4	15	11	12	12	14	4	10
Confectionery.	19	establishments.														
Bookkeepers (F.)	1		1								1					
Candy makers	20	2	2	10	6							3	4	4	2	7
Cashiers (F.)	2		2							2						
Chocolate dippers (F.)	8		8							3	2	3				
Errand boys	2			1	1					1	1					
Ice cream makers	2			1	1								2			

TABLE No. 45—MISCELLANEOUS TOWNS.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—(Continued.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Confectionery—Continued.																
Managers and foremen	4	------	------	2	2	------	------	------	------	------	------	------	------	------	------	4
Porters and packers	3	1	------	------	2	------	------	------	1	------	1	------	------	1	------	------
Saleswomen	72	3	69	------	------	------	------	------	5	40	24	3	------	------	------	------
Soda dispensers	5	------	------	1	2	2	------	------	------	------	------	2	1	2	------	------
Stock clerks (F.)	1	------	1	------	------	------	------	------	------	1	------	------	------	------	------	------
Teamsters	2	------	------	1	1	------	------	------	------	------	1	1	------	------	------	------
Waiters	5	------	------	------	5	------	------	------	------	------	2	------	------	3	------	------
Totals	127	6	83	16	20	2	------	------	6	47	32	12	7	10	2	11
Department Stores.	16	establishments.														
Advertising men	1	------	------	------	1	------	------	------	------	------	------	------	------	------	------	1
Alteration hands (F.)	14	------	14	------	------	------	------	------	------	------	4	5	3	------	------	2
Bookkeepers	13	------	2	8	3	------	------	------	------	------	------	1	1	1	1	9
Bookkeepers (F.)	11	------	11	------	------	------	------	------	------	1	3	4	3	------	------	------
Bushelmen	1	------	------	1	------	------	------	------	------	------	------	------	------	------	1	------
Cashiers (F.)	13	------	13	------	------	------	------	------	------	4	4	4	1	------	------	------
Collectors	1	------	------	1	------	------	------	------	------	------	------	------	------	------	1	------
Errand boys	11	1	------	9	1	------	------	------	8	2	1	------	------	------	------	------
Managers and foremen	24	------	------	18	6	------	------	------	------	------	------	------	1	------	------	23
Managers and forewomen	1	------	1	------	------	------	------	------	------	------	1	------	------	------	------	------
Office clerks (F.)	2	------	2	------	------	------	------	------	------	------	2	------	------	------	------	------
Porters and packers	8	------	------	4	4	------	------	------	------	------	1	1	6	------	------	------
Salesmen	119	------	------	95	24	------	------	------	1	3	1	7	35	34	19	19
Saleswomen	158	------	158	------	------	------	------	------	36	35	46	17	9	8	3	4
Shipping clerks	2	------	------	1	1	------	------	------	------	------	------	1	------	1	------	------
Stenographers (F.)	3	------	3	------	------	------	------	------	------	1	2	------	------	------	------	------
Stock clerks	5	------	3	1	1	------	------	------	------	2	------	2	------	1	------	------
Teamsters	11	------	------	4	7	------	------	------	------	------	1	------	6	4	------	------
Window dressers	1	------	1	------	------	------	------	------	------	------	------	------	------	------	------	1
Wrappers (F.)	5	------	5	------	------	------	------	------	------	4	------	------	1	------	------	------
Totals	404	1	213	142	48	------	------	------	45	52	66	42	66	49	25	59

Drug Stores.	46	est	ablis	hmen	ts.											
Bookkeepers	1		1											1		
Bookkeepers (F.)	1	1											1			
Drug clerks	62		9	9	44								8	9	1	44
Drug clerks, apprentices	3		2		1				1	1	1					
Errand boys	40	10	6	15	9			4	15	17	3	1				
Ice cream makers	1				1							1				
Porters and packers	3			1	2						1	2				
Saleswomen	8		8						1	4	1			1	1	
Soda dispensers	14		2	1	7	2	2				3	3	5	1	1	1
Stock clerks	1				1				1							
Totals	134	11	28	26	65	2	2	4	18	22	9	7	14	12	3	45
Dry Goods.	45	est	ablis	hmen	ts.											
Advertising men	1			1												1
Alteration hands (F.)	28		28						1	2	11	4	6	1	2	1
Bookkeepers	9			8	1									2	2	5
Bookkeepers (F.)	26		26							2	6	11	5	1		1
Buyers	2			2									1			1
Carpet layers	1		1											1		
Cashiers	2	1	1								2					
Cashiers (F.)	17		17							10	4	1	2			
Errand boys	30	2	1	25	2			2	14	13	1					
Managers and foremen	18		1	17										2		16
Managers and forewomen	2		2										1			1
Millinery workers (F.)	5		5							1		2	1		1	
Office clerks (F.)	11		11							4	3	3	1			
Porters and packers	9			7	2				4		1	3	1			
Salesmen	117		16	86	15					5	6	14	17	26	19	30
Saleswomen	274		274						7	87	99	35	27	13	3	3
Shipping clerks	2			2						2						
Teamsters	3			3							2	1				
Window dressers	5		2	3						1					1	3
Wrappers	3			3						3						
Wrappers (F.)	5		5						1	4						
Totals	570	3	390	157	20			2	27	134	135	74	62	46	28	62
Furniture.	6	est	ablis	hmen	ts.											
Bookkeepers	4			1	3									2	1	1
Bookkeepers (F.)	1		1										1			
Cabinet makers	8		2	4	2								2	5		1

TABLE No. 45—MISCELLANEOUS TOWNS.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—(Continued.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Furniture—Continued.																
Carpet layers	7		3	3	1							1	2	1	2	1
Collectors	1			1								1				
Finishers	3				3						1		1	1		
Managers and foremen	4			3			1									4
Operators (F.)	4		4								4					
Porters and packers	3			3								3				
Salesmen	11			6	5									7		4
Shade makers	10		3	7								3	2	5		
Shipping clerks	1			1									1			
Stenographers	1				1									1		
Stenographers (F.)	1		1									1				
Teamsters	8			4	4							4	4			
Upholsterers	7		4	2	1								1	4	1	1
Totals	74		18	35	20		1				5	13	14	26	4	12
Groceries.	36	establishments.														
Bakers	13				9		4				1	3	2	2	2	3
Bakers (F.)	9		9							5		2			2	
Bookkeepers	14		3	5	5		1				1		5	1	1	6
Bookkeepers (F.)	29	2	27							2	8	12	3	3		1
Cashiers	2				2									2		
Cashiers (F.)	13		13								7	5		1		
Collectors	2				2									2		
Drivers	121			7	102	2	10		1	3	21	33	58	5		
Errand boys	8	2			6			2	3	2	1					
Managers and foremen	14			1	13										1	13
Office clerks	7				7								1		2	4
Office clerks (F.)	21	1	20						1	4	5	10	1			
Porters and packers	16			8	8							2	6	6	2	
Salesmen	222			34	148	10	30			4	8	19	105	43	27	16
Saleswomen	21		21						1	8	9	1	2			
Shipping clerks	31				31						1	7	16	5	2	

Solicitors	23				13		10					1	20	2		
Stablemen	9				8		1					2	2	4	1	
Stenographers (F.)	4		4								1		3			
Totals	579	5	97	55	354	12	56	2	6	28	63	97	224	76	40	43
Hardware.	10	establishments.														
Bookkeepers	5		1	1	3										1	4
Bookkeepers (F.)	4		4								3			1		
Cashiers (F.)	2		2								1	1				
Errand boys	1			1					1							
Managers and foremen	12			8	4											12
Mechanics	16		14	2									2	5	3	6
Office clerks	5			3	2							2	2			1
Office clerks (F.)	3	2	1							1		2				
Plumbers	7		7								1				3	3
Salesmen	49			12	37						1	7	10	12	8	11
Stenographers (F.)	3		3								2	1				
Teamsters	9			5	4						3	1	3	1		1
Warehousemen	5				5							2	3			
General help	2				2							2				
Totals	123	2	32	32	57				1	1	11	18	20	19	15	38
Millinery.	5	establishments.														
Apprentices (F.)	2		2								2					
Bookkeepers (F.)	1		1											1		
Makers (F.)	5		5					1	4							
Saleswomen	11	1	10							4	1	2	3	1		
Trimmers (F.)	3		3									1		1		1
Totals	22	1	21					1	4	4	3	3	3	3		1
Miscellaneous.	16	establishments.														
Bindery girls	1		1							1						
Bookkeepers	3		3										1	1	1	
Bookkeepers (F.)	4		4								1	2		1		
Cashiers (F.)	2		2								1	1				
Errand boys	3		1	2					3							
Jewelers	7			7												7
Jewelers, apprentices	2			1	1				1		1					
Leather workers (F.)	2		2								1	1				
Managers and foremen	6		2	4									1			5

TABLE No. 45. MISCELLANEOUS TOWNS.

Retail Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)—Continued.

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Miscellaneous—Continued.																
Managers and forewomen	2	------	2	------	------	------	------	------	------	------	------	------	------	------	------	2
Office clerks (F.)	12	------	12	------	------	------	------	------	------	10	2	------	------	------	------	------
Opticians	3	------	------	3	------	------	------	------	------	------	------	------	------	------	------	3
Printers	2	------	------	2	------	------	------	------	------	------	------	------	------	2	------	------
Salesmen	18	------	1	11	4	2	------	------	------	2	1	3	6	3	2	1
Saleswomen	24	------	24	------	------	------	------	------	1	9	9	5	------	------	------	------
Stock clerks	1	------	------	1	------	------	------	------	------	------	------	------	1	------	------	------
General help	10	------	6	1	3	------	------	------	------	2	2	3	2	1	------	------
Totals	102	------	60	32	8	2	------	------	5	24	18	15	11	8	3	18

TABLE No. 46—MISCELLANEOUS TOWNS.

Miscellaneous Establishments. Hours of Labor and Wages. (Tabulated by industry, occupation and sex.)

INDUSTRY AND OCCUPATION.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Feed and Fuel.	2	establishments.														
Bookkeepers	2	------	------	------	2	------	------	------	------	------	------	------	------	------	------	2
Managers and foremen	7	------	------	------	7	------	------	------	------	------	------	------	1	5	------	1
Office clerks	15	------	------	------	15	------	------	------	------	------	2	------	11	2	------	------
Salesmen	2	------	------	------	2	------	------	------	------	------	------	------	------	------	------	2
Stenographers (F.)	3	------	3	------	------	------	------	------	------	------	------	3	------	------	------	------

Teamsters	23				23							6	17			
General help	38				38							33	5			
Totals	90		3		87						2	42	31	7		5
Lumber and Shipping.	8	est	ablis	hmen	ts.											
Bookkeepers	4			4									1		1	2
Lumber hands	18			18								2	13	2		1
Managers and foremen	8		2	6										2	1	5
Office clerks	3			3								1				2
Salesmen	7			7							1			2	1	3
Teamsters	12			10	2								9	3		
Totals	52		2	48	2						1	3	23	9	3	13
Milk Depots.	4	est	ablis	hmen	ts.											
Bookkeepers	1	1														1
Bookkeepers (F.)	5		5							1		2	2			
Butter makers	1			1										1		
Collectors	2			1			1						1			1
Drivers	20			10			10				3	1	7	8	1	
Managers and foremen	3	1					2							1		2
General help	14	2		2			10					6	8			
Totals	46	4	5	14			23			1	3	9	18	10	1	4
Teaming, Livery and Storage.	16	est	ablis	hmen	ts.											
Bookkeepers	4		1		3											4
Bookkeepers (F.)	3		3								1			2		
Managers and foremen	9			1	6		2						1	1		7
Office clerks	4				4								3	1		
Stablemen	52				3	21	28				2	21	25	2	2	
Teamsters	72		1		65	2	4					1	52	11	8	
General help	5		2	1	2			1		2			2			
Totals	149		7	2	83	23	34	1		2	3	22	83	17	10	11

TABLE No. 47—MISCELLANEOUS TOWNS.

Summary of all Establishments. Hours of Labor and Wages. (Tabulated by industry.)

INDUSTRY.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing:																
Bakery products	357	9	74	163	103	4	4		6	52	64	49	45	34	76	31
Blacksmithing and carriage repairing	24		1	6	17							1	2	12	8	1
Boots and shoes	234		54	179			1		21	54	38	38	26	32	13	12
Brick, tile, cement, etc.	653		2	144	352	2	153			1	6	342	90	106	70	38
Clothing	404		341	62			1		30	149	65	61	31	24	22	22
Confectionery	55		31	20	4				12	12	9	8	3	2	4	5
Construction work, general contracting, etc.	60		27	32	1				2	2	3	10	15	7	16	5
Dairy products	145		41	38	62	2	2		2	8	11	5	39	28	19	33
Drugs and chemicals	324		65	33	202	8	16			5	17	145	44	19	48	46
Dyeing and cleaning	53		22	25	5		1			3	11	8	12	9	5	5
Elevators	41		41							3			4	3	27	4
Engines	86	1	60	24			1		9	1	4	8	10	3	41	10
Explosives	562	2	70	169	256	37	28	1		27	46	122	169	48	66	83
Fertilizers	104		1	68	35							84	11	1	3	5
Flouring mill products	241	1	8	29	202		1				3	12	163	34	6	23
Foundries	271		82	189					1	14	12	74	38	25	66	41
Garages and repair shops	42		17	15	3	3	4		1	3	6	1	5	6	4	16
Gloves	280	1	153	125			1		8	46	83	60	20	27	19	17
Ice	33		8		18	1	6						6	17	4	6
Ink	39		3	36						3	1		25	2	3	5
Laundries	1123		713	295	113	1	1		16	356	292	130	125	96	40	68
Leather and leather goods	686	7	14	623	38		4		3	9	33	378	144	79	15	25
Liquors, malt	155		106	9	38	2						6	31	44	31	43
Lumber and milling	1790		541	510	732		7		3	45	98	416	460	227	261	280
Machinery	882	1	450	364	65		2		15	41	27	132	163	161	245	98
Oils and grease	103		11	5	82		5				1	28	34	8	25	7
Paper	85		4	37			44				12	41	9	16	2	5
Pickles, preserves, sauces, etc.	110		51	37	21		1			40	18	30	5	8	3	6
Plumbing	101		69	22	6		4		1	5	4	13	20	15	16	27
Printing and binding	825	106	627	91			1	19	72	69	87	61	89	108	114	206
Restaurants	120	19	30	10	26	18	17		7	31	40	24	6	4	5	3
Rubber	136		10		126						35	47	31	4	9	10

Salt	25		17	1	5		2			15	1		3	5		1
Silk	120		92	25	1		2		5	45	51	6	6	4	1	2
Slaughtering and meat packing	36	1	1	8	14	7	5		1		1	3	8	8	12	3
Smelting	386		209	175			2				1	95	133	51	71	35
Soda and mineral water	19		4	15					1	1	2	9	2	1	1	2
Wineries	110	2	7	68	33						7	28	16	3	30	26
Miscellaneous	494	35	170	189	94		6		18	50	40	67	205	51	24	39
Totals	11314	185	4227	3841	2654	85	322	20	234	1090	1129	2542	2248	1332	1425	1294
Wholesale	52		9	6	37						2	2	14	16	4	14
Retail:																
Butcher shops	98	4	6	13	43	14	18		1	6	5	18	11	30	18	9
Clothing	82	1	32	49					4	15	11	12	12	14	4	10
Confectionery	127	6	83	16	20	2			6	47	32	12	7	10	2	11
Department stores	404	1	213	142	48				45	52	66	42	66	49	25	59
Drug stores	134	11	28	26	65	2	2	4	18	22	9	7	14	12	3	45
Dry goods	570	3	390	157	20			2	27	134	135	74	62	46	28	62
Furniture	74		18	35	20		1				5	13	14	26	4	12
Groceries	579	5	97	55	354	12	56	2	6	28	63	97	224	76	40	43
Hardware	123	2	32	32	57				1	1	11	18	20	19	15	38
Millinery	22	1	21					1	4	4	3	3	3	3		1
Miscellaneous	102		60	32	8	2			5	24	18	15	11	8	3	18
Totals	2315	34	980	557	635	32	77	9	117	333	358	311	444	293	142	308
Miscellaneous:																
Feed and fuel	90		3		87						2	42	34	7		5
Lumber and shipping	52		2	48	2						1	3	23	9	3	13
Milk depots	46	4	5	14			23			1	3	9	18	10	1	4
Teaming, livery and storage	149		7	2	83	23	34	1		2	3	22	83	17	10	11
Totals	337	4	17	64	172	23	57	1		3	9	76	158	43	14	33
Recapitulation:																
Manufacturing	11314	185	4227	3841	2654	85	322	20	234	1090	1129	2542	2248	1332	1425	1294
Wholesale	52		9	6	37						2	2	14	16	4	14
Retail	2315	34	980	557	635	32	77	9	117	333	358	311	444	293	142	308
Miscellaneous	337	4	17	64	172	23	57	1		3	9	76	158	43	14	33
Grand totals	14018	223	5233	4468	3498	140	456	30	351	1426	1498	2931	2864	1684	1585	1649
Total males	11147	125	2460	4468	3498	140	456	29	182	337	629	2540	2652	1600	1558	1620
Total females	2871	98	2773					1	169	1089	869	391	212	84	27	29

TABLE No. 48—MISCELLANEOUS TOWNS.

Female Employees. Hours of Labor and Wages. (Tabulated by industry.)

INDUSTRY.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 nd over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
Manufacturing:																
Bakery products	77	9	68						5	40	24	8				
Blacksmithing and carriage repairing	1		1									1				
Boots and shoes	53		53						13	26	6	6		2		
Brick, tile, cement, etc.	2		2							1			1			
Clothing	313		313						27	146	63	45	21	8	2	1
Confectionery	31		31						11	10	6	4				
Construction work, general contracting, etc.	8		8							2	3	1	2			
Dairy products	24		24						1	7	10	1	2		3	
Drugs and chemicals	27		27							5	16	3	2			1
Dyeing and cleaning	22		22							2	11	7	1	1		
Engines	1	1								1						
Explosives	47	2	45							20	15	2	8	1	1	
Fertilizers	1		1												1	
Flouring mill products	6	1	5								3	1		2		
Foundries	4		4							1	2	1				
Garages and repair shops	4		4								4					
Gloves	150	1	149						3	30	72	32	6	7		
Ink	3		3							2	1					
Laundries	633		633						13	319	213	61	19	7		1
Leather and leather goods	14	5	9						1	5	3	2	1	1	1	
Liquors, malt	3		3									1	1	1		
Lumber and milling	42		42						1	19	3	3	10	4	2	
Machinery	16	1	15							1	2	8	3	2		
Oils and grease	1		1								1					
Paper	3		3										2	1		
Pickles, preserves, sauces, etc.	51		51							38	13					
Plumbing	4		4						1		1		2			
Printing and binding	131	1	130						7	38	31	24	13	7	4	7
Restaurants	46	19	27						5	22	11	6	2			
Rubber	10		10								9				1	
Salt	17		17							15	1		1			
Silk	92		92						5	38	43	5	1			

Slaughtering and meat packing	2	1	1	------	------	------	------	------	------	------	1	1	------	------	------	------
Wineries	1	------	1	------	------	------	------	------	------	------	------	------	------	1	------	------
Miscellaneous	119	35	84	------	------	------	------	------	15	41	19	12	30	1	------	1
Totals	1959	76	1883	------	------	------	------	------	108	829	587	235	128	46	15	11
Wholesale	6	------	6	------	------	------	------	------	------	------	2	------	2	2	------	------
Retail:																
Butcher shops	10	4	6	------	------	------	------	------	1	2	2	3	2	------	------	------
Clothing	33	1	32	------	------	------	------	------	2	8	7	9	4	1	------	2
Confectionery	84	3	81	------	------	------	------	------	5	46	27	6	------	------	------	------
Department stores	207	------	207	------	------	------	------	------	36	45	62	30	17	8	3	6
Drug stores	9	1	8	------	------	------	------	------	1	4	1	------	1	1	1	------
Dry goods	368	------	368	------	------	------	------	------	9	110	123	56	43	15	6	6
Furniture	6	------	6	------	------	------	------	------	------	------	4	1	1	------	------	------
Groceries	97	3	94	------	------	------	------	------	2	19	30	30	9	4	2	1
Hardware	12	2	10	------	------	------	------	------	------	1	6	4	------	1	------	------
Millinery	22	1	21	------	------	------	------	1	4	4	3	3	3	3	------	1
Miscellaneous	47	7	40	------	------	------	------	------	1	20	14	9	------	1	------	2
Totals	895	22	873	------	------	------	------	1	61	259	279	151	80	34	12	18
Miscellaneous:																
Feed and fuel	3	------	3	------	------	------	------	------	------	------	------	3	------	------	------	------
Milk depots	5	------	5	------	------	------	------	------	------	1	------	2	2	------	------	------
Teaming, livery and storage	3	------	3	------	------	------	------	------	------	------	1	------	------	2	------	------
Totals	11	------	11	------	------	------	------	------	------	1	1	5	2	2	------	------
Recapitulation:																
Manufacturing	1959	76	1883	------	------	------	------	------	108	829	587	235	128	46	15	11
Wholesale	6	------	6	------	------	------	------	------	------	------	2	------	2	2	------	------
Retail	895	22	873	------	------	------	------	1	61	259	279	151	80	34	12	18
Miscellaneous	11	------	11	------	------	------	------	------	------	1	1	5	2	2	------	------
Grand totals	2871	98	2773	------	------	------	------	1	169	1089	869	391	212	84	27	29

TABLE No. 49—SUMMARY FOR STATE.

All Establishments. Hours of Labor and Wages. (Tabulated by locality and sex.)

LOCALITY.	Number of employees considered.	HOURS PER DAY.						WAGES PER WEEK.								
		Less than 8	8	9	10	11	12 and over.	Less than $3.	$3 to $5.99.	$6 to $8.99.	$9 to $11.99.	$12 to $14.99.	$15 to $17.99.	$18 to $20.99.	$21 to $24.99.	$25 and over.
San Francisco—																
Males	44079	451	20982	16877	4857	258	654	21	564	2405	3257	5281	6614	5965	7646	12326
Females	16087	450	15637	------	------	------	------	63	1072	4440	4117	2972	1705	853	426	439
Los Angeles—																
Males	36450	297	9532	18812	6901	472	436	48	421	2242	3262	7002	6940	5916	4023	6596
Females	11911	148	11763	------	------	------	------	34	1132	3746	3072	1890	1157	543	119	218
Oakland—																
Males	6934	111	3042	2657	1059	4	61	10	171	333	586	697	1149	1179	1287	1522
Females	2843	58	2785	------	------	------	------	------	323	1176	622	350	186	100	38	48
Sacramento—																
Males	3327	19	1655	1086	512	37	18	11	74	169	193	307	603	591	511	868
Females	1335	24	1311	------	------	------	------	23	214	405	339	146	106	44	22	36
San Jose—																
Males	1308	23	525	418	305	7	30	22	24	64	75	171	218	248	176	310
Females	554	8	546	------	------	------	------	------	13	191	185	100	32	18	6	9
Stockton—																
Males	2079	13	587	1095	350	24	10	3	33	94	136	270	325	436	428	354
Females	527	9	518	------	------	------	------	8	17	158	148	89	59	31	3	14
San Diego—																
Males	2626	12	749	1214	633	8	10	10	57	122	222	250	712	535	324	394
Females	1076	47	1029	------	------	------	------	15	78	444	204	172	106	32	6	19
Miscellaneous towns—																
Males	11147	125	2460	4468	3498	140	456	29	182	337	629	2540	2652	1600	1558	1620
Females	2871	98	2773	------	------	------	------	1	169	1089	869	391	212	84	27	29
Total males	107950	1051	39532	16627	18115	950	1675	154	1526	5766	8360	16518	19213	16470	15953	23990
Total females	37204	842	36362	------	------	------	------	144	3018	11649	9556	6110	3563	1705	647	812
Grand totals	145154	1893	75894	16627	18115	950	1675	298	4544	17415	17916	22628	22776	18175	16600	24802

INSPECTION OF FACTORIES AND STORES.

Table I.

In the city of San Francisco, 1,998 establishments were inspected. Under the head of ''Manufacturing'' there were inspected 1,131 establishments, employing a total of 36,842 persons, of whom 28,071, or 76.2 per cent, were males; and 8,771, or 23.8 per cent, were females. Minors under the age of eighteen years constituted 4.1 per cent of the total number of employees, while minors under sixteen years of age constituted 0.7 per cent. Under the head of ''Wholesale'' there were inspected 336 establishments, employing a total of 10,566 persons, of whom 8,169, or 79.4 per cent, were males, and 2,121, or 20.6 per cent, were females. Minors under the age of eighteen constituted 4.6 per cent of the total number of employees, while minors under sixteen years of age constituted 0.6 per cent. Under the head of ''Retail'' there were inspected 336 establishments, employing a total of 10,566 per sons, of whom 5,955, or 56.4 per cent, were males, and 4,611, or 43.6 per cent, were females. Minors under the age of eighteen constituted 8.8 per cent of the total number of employees, while minors under sixteen years of age constituted 2.1 per cent. Under the head of ''Miscellaneous'' there were inspected 108 establishments, employing a total of 2,718 persons, of whom 2,299, or 84.6 per cent, were males, and 419, or 15.4 per cent, were females. Minors under the age of eighteen years constituted 1.5 per cent of the total, while minors under the age of sixteen years constituted 0.2 per cent.

In the total of 1,998 establishments inspected in San Francisco, there were employed 60,416 persons, of whom 44,494, or 73.6 per cent, were males, and 15,922, or 26.4 per cent, were females. Minors under eighteen years constituted 4.9 per cent of the total number employed, while minors under sixteen years constituted 0.9 per cent.

Table II.

In the city of Los Angeles, 1,533 establishments were inspected. Under the head of ''Manufacturing'' there were inspected 809 establishments employing 29,618 persons, of whom 23,195, or 78.3 per cent, were males, and 6,423, or 21.7 per cent, were females. Minors under the age of eighteen years constituted 3.1 per cent of the total number employed, while minors under the age of sixteen years constituted 0.2 per cent. Under the head of ''Wholesale'' 211 establishments were inspected, employing a total of 5,778 persons, of whom 4,915, or 85.1 per cent, were males, and 863, or 14.9 per cent, were females. Minors under the age of eighteen years constituted 2.6 per cent of the total, while minors under the age of sixteen years constituted 0.2 per cent. Under the head of ''Retail'' there were inspected 442 establishments, employing 12,249 persons, of whom 6,730, or 54.9 per cent, were males, and 5,519, or 45.1

per cent females. Minors under the age of eighteen years constituted 7.9 per cent of the total, while 2.2 per cent were minors under the age of sixteen years. Under the head of "Miscellaneous" 71 establishments were inspected, employing a total of 2,000 persons, of whom 1,803, or 90.1 per cent, were males, and 197, or 9.9 per cent, females. Minors under the age of eighteen years constituted 1.1 per cent of the total. No minors under sixteen years of age were employed.

In the total of 1,533 establishments inspected in the city of Los Angeles there were employed 49,645 persons, of whom 36,643, or 73.8 per cent, were males, and 13,002, or 26.2 per cent, were females. Minors under the age of eighteen years constituted 4.2 per cent of the total number employed, while minors under the age of sixteen years constituted 0.7 per cent.

Table III.

In the city of Oakland, 332 establishments were inspected. Under the head of "Manufacturing" there were inspected 205 establishments, employing 6,491 persons, of whom 4,888, or 75.3 per cent, were males, and 1,603, or 24.7 per cent, females. Minors under the age of eighteen years constituted 8.5 per cent of the total number of employees, while minors under the age of sixteen years constituted 1.2 per cent. Under the head of "Wholesale" 20 establishments were inspected, employing a total of 286 persons, of whom 239, or 83.6 per cent, were males, and 47, or 16.4 per cent, females. Minors under the age of eighteen years constituted 1.0 per cent, while minors under the age of sixteen years constituted 0.3 per cent. Under the head of "Retail" 92 establishments were inspected, employing 2,616 persons, of whom 1,427, or 54.5 per cent, were males, and 1,189, or 45.5 per cent, females. Minors under the age of eighten years constituted 10.1 per cent of the total, while minors under the age of sixteen years constituted 3.2 per cent. Under the head of "Miscellaneous" there were inspected 15 establishments, employing a total of 195 persons, of whom 159, or 81.5 per cent, were males, and 36, or 18.5 per cent, females. No minors were employed.

In the total of 332 establishments inspected in the city of Oakland, there were employed 9,588 persons, of whom 6,713, or 70.0 per cent, were males, and 2,875, or 30.0 per cent, females. Minors under the age of eighteen years constituted 8.6 per cent of the total number employed, while minors under the age of sixteen years constituted 1.7 per cent.

Table IV.

In the city of Sacramento there were inspected a total of 170 establishments, employing 4,857 persons, of whom 3,446, or 70.9 per cent, were males, and 1,411, or 29.1 per cent, females. Minors under the age of eighteen years constituted 7.1 per cent of the total number of employees, while minors under the age of sixteen years constituted 1.7 per cent.

Table V.

In the city of San José there were inspected 115 establishments, employing a total of 1,961 persons, of whom 1,390, or 70.9 per cent, were males, and 571, or 29.1 per cent, were females. Minors under the age of eighteen years constituted 4.8 per cent of the total number of employees, while minors under the age of sixteen years constituted 0.5 per cent.

Table VI.

In the city of Stockton there were inspected 101 establishments, employing 2,630 persons, of whom 2,099, or 79.8 per cent, were males, and 531, or 20.2 per cent, were females. Minors under the age of eighteen years constituted 4.8 per cent of the total, while minors under the age of sixteen years constituted 0.6 per cent.

Table VII.

In the city of San Diego there were inspected 204 establishments, employing a total of 3,722 persons, of whom 2,759, or 74.1 per cent, were males, and 963, or 25.9 per cent, females. Minors under the age of eighteen years constituted 4.6 per cent of the total employees, while minors under the age of sixteen constituted 1.6 per cent.

Table VIII.

In the city of Berkeley there were inspected 73 establishments, employing 1,500 persons, of whom 1,132, or 75.5 per cent, were males, and 368, or 24.5 per cent, females. Minors under the age of eighteen years constituted 5.3 per cent of the total number of employees, while minors under the age of sixteen years constituted 0.5 per cent.

Table IX.

In the city of Alameda there were inspected 32 establishments, employing 1,094 persons, of whom 1,018, or 93.1 per cent, were males, and 76, or 6.1 per cent, females. Minors under the age of eighteen years constituted 2.8 per cent of the total number of employees, while minors under the age of sixteen years constituted 0.1 per cent.

Table X.

In the city of Pasadena there were inspected 92 establishments, employing 1,277 persons, of whom 898, or 70.3 per cent, were males, and 379, or 29.7 per cent, females. Minors under the age of eighteen years constituted 2.0 per cent of the total, while minors under the age of sixteen years constituted 0.4 per cent.

Tables XI and XII.

In the "Miscellaneous Towns" of the State there were inspected 533 establishments, employing a total of 11,859 persons, of whom 9,729, or 82.0 per cent, were males, and 2,130, or 18.0 per cent, females. Minors under the age of eighteen years constituted 4.0 per cent of the total number of employees, while minors under the age of sixteen years constituted 0.8 per cent.

Table XIII.

A total of 5,183 estalishments were inspected in the State. These establishments employed 148,549 persons, of whom 110,321, or 74.3 per cent, were males, and 38,228, or 25.7 per cent, females. Minors under the age of eighteen years constituted 4.8 per cent of the total number of employees, while minors under the age of sixteen years constituted 0.9 per cent.

TABLE No. 1. CITY OF SAN FRANCISCO.

Inspection of Factories and Stores. (Showing number and sex of adult and minor employees, by industries.)

INDUSTRY.	Number of establishments visited	Total number of employees	Total male	Total female	ADULTS.			MINORS.							
					Total	Male	Female	Total under 18 years	16 to 18 years.		Total under 16 years	15 to 16 years.		12 to 15 years.	
									Male	Female		Male	Female	Male	Female
Manufacturing.															
Automobile accessories	8	71	66	5	68	63	5	3	3						
Awnings, tents, etc.	4	205	110	95	175	93	82	30	12	8	10	5	5		
Bags, paper and burlap	6	242	83	159	159	71	88	83	9	42	32	1	23	2	6
Bakery products	50	803	618	185	799	617	182	4	1	3					
Bar and store fixtures, billiards, etc.	10	500	496	4	493	489	4	7	6		1	1			
Blacksmithing and horseshoeing	5	93	92	1	92	91	1	1	1						
Boilers, engines and tanks	10	196	193	3	192	189	3	4	4						
Boots and shoes	3	326	218	108	299	203	96	27	12	10	5	2	2	1	
Boxes, paper	11	348	129	219	294	121	173	54	7	38	9	1	6		2
Boxes, wood	6	354	325	29	320	292	28	34	31	1	2	2			
Brick, tile, pottery, etc.	1	33	33		33	33									
Cans, tin	4	596	494	102	508	430	78	88	55	21	12	9	3		
Carriages and wagons	9	256	238	18	255	237	18	1	1						
Carpets and rugs	4	27	18	9	26	17	9	1			1	1			
Cigars and cigarettes	9	612	354	258	561	340	221	51	9	31	11	5	6		
Clothing	57	2478	446	2032	2424	420	2004	54	22	27	5	3	1	1	
Coffee, spices, etc.	4	429	249	180	418	243	175	11	5	5	1			1	
Coffins	2	55	41	14	54	40	14	1	1						
Confectionery	28	1667	756	911	1551	732	819	116	19	76	21	5	15		1
Construction work, general contracting, etc.	15	744	729	15	742	727	15	2	2						
Cooperage	9	308	249	59	308	249	59								
Copper and brass goods	9	113	108	5	108	103	5	5	4		1	1			
Dairy products, butter, etc.	3	101	81	20	99	79	20	2	1		1	1			
Drugs and chemicals	16	250	148	102	238	141	97	12	6	3	3	1	1		1
Dyeing and cleaning	6	503	204	299	489	201	288	14	1	6	7	2	2		3
Electrical goods and supplies	20	674	607	67	598	534	64	76	67	3	6	5		1	
Elevators	3	188	175	13	187	174	13	1	1						
Envelopes	2	63	16	47	54	14	40	9	2	6	1		1		
Extracts, perfumes, etc.	3	53	19	34	47	17	30	6	2	4					
Fertilizers	2	46	44	2	45	43	2	1	1						
Fixtures, gas and electric	14	445	406	39	404	367	37	41	31	2	8	6		2	

Flouring mill products	11	414	350	64	409	349	60	5	1	4					
Foundries	20	613	597	16	601	585	16	12	10		2	2			
Furniture	13	355	339	16	345	329	16	10	6		4	3		1	
Garages and repair shops	21	440	422	18	433	415	18	7	5		2	2			
Glass and glassware	14	1161	1100	61	1154	1093	61	7	6		1	1			
Gloves	6	89	38	51	85	38	47	4		4					
Harness and saddlery	3	105	99	6	101	95	6	4	4						
Hats, caps and furnishings	17	392	158	234	378	151	227	14	5	6	3	2	1		
Ice	3	175	172	3	175	172	3								
Ink	4	32	28	4	32	28	4								
Iron, structural and architectural	22	583	574	9	567	558	9	16	14		2	2			
Jewelry, watches, silversmiths, etc.	11	339	299	40	323	284	39	16	6		10	8		1	1
Laundries, hand	33	217	114	103	216	114	102	1		1					
Laundries, steam	27	1749	709	1040	1707	699	1008	42	10	32					
Leather, leather goods, etc.	19	532	514	18	526	510	16	6	3	2	1	1			
Liquors, malt	22	673	664	9	673	664	9								
Lithographing	8	543	452	91	497	416	81	46	32	10	4	4			
Lumber and milling	39	1086	1063	23	1074	1051	23	12	12						
Machinery and machine shop products	53	3326	3267	59	3200	3142	58	126	110	1	15	14		1	
Mattresses, pillows and bedding	10	278	240	38	268	233	35	10	7	3					
Millinery	3	28	2	26	25		25	3	2	1					
Moldings and frames, picture	4	128	106	22	124	102	22	4	3		1	1			
Newspapers	6	1147	1067	80	1125	1048	77	22	13	3	6	6			
Optical goods	7	137	113	24	117	93	24	20	18		2	2			
Oils and grease	2	69	67	2	69	67	2								
Paints, varnishes, etc.	8	194	169	25	193	168	25	1			1			1	
Pastes, macaroni, etc.	7	92	81	11	86	78	8	6	2	3	1	1			
Patterns and models	7	39	39		36	36		3	3						
Pennants and sporting goods	6	144	59	85	137	54	83	7	5	2					
Photographs and photo-engraving	11	196	131	65	171	118	53	25	11	8	6	1	3	1	1
Pickles, preserves, sauces, etc.	13	343	218	125	324	213	111	19	5	14					
Plating	5	33	32	1	33	32	1								
Plumbing, steam and gas fitting, etc.	3	86	83	3	85	82	3	1	1						
Printing and binding	114	2279	1719	560	2078	1562	516	201	124	40	37	24	4	9	
Restaurants	54	1351	1099	252	1347	1096	251	4	1	1	2	2			
Roofing	1	29	27	2	29	27	2								
Rubber goods	5	118	109	9	113	104	9	5	5						
Safes and vaults	1	21	20	1	19	18	1	2	2						
Shipwrights, caulkers, etc.	4	56	55	1	54	53	1	2	1		1	1			
Slaughtering and meat packing	18	1175	1140	35	1155	1125	30	20	14	5	1			1	
Smelting	2	67	65	2	66	64	2	1			1	1			
Soap, tallow, glue, etc.	6	132	119	13	132	119	13								
Soda and mineral water	4	51	49	2	51	49	2								
Stencils and stamps	2	10	10		7	7		3	3						

TABLE No. 1. CITY OF SAN FRANCISCO.

Inspection of Factories and Stores. (Showing number and sex of adult and minor employees, by industries.)—Continued.

INDUSTRY.	Number of establishments visited	Total number of employees	Total male	Total female	ADULTS.			MINORS.							
					Total	Male	Female	Total under 18 years	16 to 18 years.		Total under 16 years	15 to 16 years.		12 to 15 years.	
									Male	Female		Male	Female	Male	Female
Stone and marble	8	323	316	7	322	315	7	1	1						
Stoves and furnaces	5	129	124	5	126	121	5	3	3						
Sugar, refining	1	399	388	11	393	387	6	6	1	4	1				1
Tailor shops	49	743	457	286	706	431	275	37	17	11	9	7		2	
Tinware, sheet metal, etc.	29	390	378	12	382	370	12	8	7		1	1			
Tools and hardware	4	48	45	3	46	43	3	2	2						
Trunks, valises, etc.	8	148	118	30	137	107	30	11	9		2	2			
Wire and wire products	9	195	185	10	191	182	9	4	3	1					
Miscellaneous	36	661	537	124	646	524	122	15	11	1	3	1	1	1	
Totals	1131	36842	28071	8771	35329	27091	8238	1513	814	443	256	140	74	26	16
Wholesale.															
Bicycles, motorcycles and supplies	4	35	30	5	33	28	5	2	2						
Boots and shoes	5	74	61	13	73	60	13	1	1						
Building materials	2	29	26	3	29	26	3								
Butchers' supplies	3	32	28	4	32	28	4								
Cigars and tobaccos	9	270	231	39	264	226	38	6	4	1	1	1			
Clothing and furnishings	32	711	562	149	677	535	142	34	24	6	4	2	1	1	
Commission merchants	33	504	422	82	498	416	82	6	3		3	2		1	
Drugs and chemicals	10	580	359	221	541	325	216	39	33	5	1	1			
Dry goods	6	246	226	20	237	217	20	9	7		2	2			
Fish, oysters, etc.	7	133	123	10	133	123	10								
Furniture, carpets, etc.	10	196	158	38	180	145	35	16	13	3					
Gas and electric goods	11	219	168	51	203	154	49	16	12	2	2	2			
Glass	2	27	26	1	27	26	1								
Groceries, coffees, spices, etc.	41	1321	1111	210	1259	1069	190	62	40	20	2	1		1	
Hardware	20	1101	918	183	1022	845	177	79	64	6	9	4		5	
Household goods	5	424	285	139	384	263	121	40	22	18					
Importers	6	67	44	23	63	41	22	4	3	1					
Iron, steel, wire, etc.	5	62	54	8	62	54	8								
Jewelry	4	59	50	9	57	48	9	2	1		1	1			

Junk	8	180	133	47	175	131	44	5	1	3	1	1	------	------	------
Leather	6	77	63	14	72	59	13	5	3	1	1	1	------	------	------
Liquors	39	688	562	126	682	559	123	6	3	3	------	------	------	------	------
Machinery and implements	17	233	181	52	231	179	52	2	2	------	------	------	------	------	------
Manufacturers' agents	43	631	473	158	608	453	155	23	15	3	5	4	------	1	------
Meats	5	129	118	11	128	118	10	1	------	1	------	------	------	------	------
Millinery	10	197	132	65	176	119	57	21	10	6	5	3	2	------	------
Notions, fancy goods, curios, etc.	11	144	113	31	140	109	31	4	3	------	1	------	------	1	------
Paints, oils, wall paper, etc.	5	143	112	31	131	103	28	12	8	3	1	1	------	------	------
Paper	8	328	282	46	314	268	46	14	10	------	4	4	------	------	------
Patterns, dress	5	59	8	51	45	6	39	14	1	11	2	1	------	------	1
Plumbing supplies	13	521	480	41	507	466	41	14	11	------	3	2	------	1	------
Rubber goods	7	131	106	25	129	104	25	2	2	------	------	------	------	------	------
Safes, scales, etc.	7	122	112	10	122	112	10	------	------	------	------	------	------	------	------
Stationery, books and drawing instruments	10	279	218	61	263	203	60	16	11	1	4	4	------	------	------
Miscellaneous	14	338	194	144	322	188	134	16	6	1	9	------	9	------	------
Totals	423	10290	8169	2121	9819	7806	2013	471	315	95	61	37	12	11	1
Retail.															
Automobiles and supplies	42	852	740	112	835	725	110	17	13	2	2	1	------	1	------
Boots and shoes	9	302	254	48	281	234	47	21	12	------	9	8	1	------	------
Butcher shops and markets	28	266	243	23	256	233	23	10	8	------	2	------	------	2	------
Clothing and furnishings	61	1655	577	1078	1520	504	1016	135	44	44	47	20	15	9	3
Confectionery	5	156	26	130	148	24	124	8	2	6	------	------	------	------	------
Department stores	11	3305	1460	1845	2910	1292	1618	395	142	172	81	20	46	6	9
Drug stores	61	359	302	57	292	235	57	67	57	------	10	7	------	3	------
Dry goods	7	952	411	541	834	331	503	118	43	37	38	31	1	6	------
Florists and nurseries	4	38	33	5	36	31	5	2	2	------	------	------	------	------	------
Furniture	21	817	674	143	802	661	141	15	12	2	1	------	------	1	------
Groceries	5	193	158	35	182	147	35	11	11	------	------	------	------	------	------
Hardware	11	296	264	32	277	247	30	19	12	2	5	5	------	------	------
Household goods, crockery, glassware, etc.	2	16	10	6	16	10	6	------	------	------	------	------	------	------	------
Jewelry	7	278	246	32	241	209	32	37	25	------	12	7	------	5	------
Millinery	31	393	17	376	360	8	352	33	7	21	5	2	2	------	1
Music, musical instruments, etc.	12	415	344	71	398	327	71	17	13	------	4	3	------	1	------
Stationery, books, etc.	9	135	86	49	113	64	49	22	16	------	6	6	------	------	------
Miscellaneous	10	138	110	28	132	104	28	6	5	------	1	1	------	------	------
Totals	336	10566	5955	4611	9633	5386	4247	933	424	286	223	111	65	34	13

TABLE No. 1. CITY OF SAN FRANCISCO.

Inspection of Factories and Stores. (Showing number and sex of adult and minor employees, by industries.)—Continued.

INDUSTRY.	Number of establishments visited	Total number of employees	Total male	Total female	ADULTS.			MINORS.							
					Total	Male	Female	Total under 18 years	16 to 18 years.		Total under 16 years	15 to 16 years.		12 to 15 years.	
									Male	Female		Male	Female	Male	Female
Miscellaneous.															
Feed and fuel	6	97	93	4	97	93	4								
Insurance offices	14	687	458	229	669	440	229	18	17		1	1			
Lumber and shipping	14	273	259	14	271	257	14	2	2						
Milk depots	3	64	60	4	64	60	4								
Offices	10	158	79	79	151	74	77	7	4	2	1			1	
Teaming, livery and storage	52	1074	1042	32	1060	1028	32	14	10		4	3		1	
General	9	365	308	57	364	307	57	1	1						
Totals	108	2718	2299	419	2676	2259	417	42	34	2	6	4		2	
Recapitulation.															
Manufacturing	1131	36842	28071	8771	35329	27091	8238	1513	814	443	256	140	74	26	16
Wholesale	423	10290	8169	2121	9819	7806	2013	471	315	95	61	37	12	11	1
Retail	336	10566	5955	4611	9633	5386	4247	933	424	286	223	111	65	34	13
Miscellaneous	108	2718	2299	419	2676	2259	417	42	34	2	6	4		2	
Grand totals	1998	60416	44494	15922	57457	42542	14915	2959	1587	826	546	292	151	73	30

TABLE No. 2. CITY OF LOS ANGELES.

Inspection of Factories and Stores. (Showing number and sex of adult and minor employees, by industries.)

INDUSTRY.	Number of establishments visited	Total number of employees	Total male	Total female	ADULTS.			MINORS.							
					Total	Male	Female	Total under 18 years	16 to 18 years.		Total under 16 years	15 to 16 years.		12 to 15 years.	
									Male	Female		Male	Female	Male	Female
Manufacturing.															
Automobiles and accessories	10	213	193	20	210	190	20	3	3						
Awnings, tents, etc.	3	34	19	15	34	19	15								
Bakery products	18	362	307	55	357	304	53	5	3	2					
Bar and store fixtures	2	133	130	3	126	123	3	7	4		3	3			
Blacksmithing and horseshoeing	1	17	17		17	17									
Boilers, engines and tanks	9	296	288	8	296	288	8								
Boxes, paper	3	173	72	101	154	69	85	19	3	16					
Boxes, wood	5	155	146	9	144	135	9	11	6		5	5			
Brick, tile and pottery	10	1041	1032	9	996	987	9	45	45						
Building materials, cement, etc.	7	630	627	3	630	627	3								
Carriages and wagons	5	80	78	2	80	78	2								
Cigars and cigarettes	5	252	169	83	238	168	70	14	1	8	5		5		
Cleaning and dyeing	6	135	68	67	132	65	67	3	3						
Clothing, garments	31	1399	267	1132	1315	250	1065	84	13	67	4	4			
Coffins	2	45	42	3	44	41	3	1	1						
Confectionery	13	885	469	416	784	452	332	101	17	83	1		1		
Construction work, general contracting, etc.	27	3183	3160	23	3159	3136	23	24	24						
Copper and brass goods	6	120	120		116	116		4	2		2	2			
Dairy products	4	263	244	19	263	244	19								
Drugs and chemicals	7	78	62	16	76	60	16	2	2						
Electrical goods and supplies	15	291	262	29	265	236	29	26	25		1	1			
Elevators	1	8	8		8	8									
Fertilizers	2	54	54		52	52		2	2						
Fixtures, gas and electric	6	181	173	8	162	154	8	19	16		3	3			
Flouring mill products	7	316	277	39	311	276	35	5		4	1	1			
Foundries	5	91	86	5	89	84	5	2	2						
Furniture	11	210	198	12	207	195	12	3	1		2	2			
Garages and repair shops	10	126	121	5	120	115	5	6	6						
Glass and glassware	5	87	84	3	81	78	3	6	6						
Gloves	1	26	9	17	24	8	16	2	1	1					
Harness and saddlery	3	179	160	19	172	153	19	7	7						

TABLE No. 2. CITY OF LOS ANGELES.

Inspection of Factories and Stores. (Showing number and sex of adult and minor employees, by industries.)—Continued.

INDUSTRY.	Number of establishments visited	Total number of employees	Total male	Total female	ADULTS.			MINORS.							
					Total	Male	Female	Total under 18 years	16 to 18 years.		Total under 16 years	15 to 16 years.		12 to 15 years.	
									Male	Female		Male	Female	Male	Female
Hats, caps and furnishings	6	130	66	64	122	63	59	8	3	5					
Ice	4	448	440	8	447	439	8	1			1			1	
Incubators	2	36	34	2	33	31	2	3	3						
Iron, structural and architectural	5	1047	1036	11	1002	991	11	45	42		3	3			
Jewelry	8	120	105	15	113	98	15	7	4		3	3			
Laundries, hand	3	27	16	11	26	16	10	1		1					
Laundries, steam	25	2741	952	1789	2700	937	1763	41	14	25	2	1	1		
Leather and leather goods	6	185	100	85	180	99	81	5	1	4					
Liquors, malt	6	384	380	4	384	380	4								
Lithographing	4	271	202	69	229	173	56	42	27	12	3	1	1	1	
Lumber and milling	12	1719	1702	17	1676	1659	17	43	39		4	4			
Machinery and machine shop products	41	822	787	35	794	759	35	28	28						
Mattresses, pillows and bedding	4	211	171	40	198	158	40	13	12		1	1			
Millinery	1	7	4	3	7	4	3								
Moldings, picture	2	47	42	5	45	40	5	2	2						
Newspapers	9	1588	1450	138	1535	1398	137	53	51	1	1	1			
Oil, producing and refining	10	523	508	15	521	506	15	2	2						
Paints, varnishes, etc.	6	200	183	17	196	179	17	4	4						
Pastes, macaroni, etc.	1	27	16	11	26	16	10	1			1		1		
Patterns and models	5	32	32		32	32									
Pennants and sporting goods	4	71	25	46	66	22	44	5	2	2	1			1	
Photographs	5	78	46	32	72	42	30	6	4	2					
Pickles, preserves, sauces, etc.	4	55	38	17	53	38	15	2		2					
Plating	2	11	10	1	9	8	1	2	2						
Plumbing, steam and gas fitting, etc.	9	201	199	2	201	199	2								
Printing and bookbinding	65	858	644	214	777	578	199	81	61	14	6	4	1	1	
Restaurants	157	3119	2099	1020	3108	2093	1015	11	6	5					
Rubber goods	2	32	27	5	32	27	5								
Safes and vaults	1	11	9	2	11	9	2								
Slaughtering and meat packing	5	804	774	30	788	758	30	16	15		1	1			
Soap, tallow and glue	1	87	73	14	87	73	14								
Soda and mineral water	1	14	13	1	13	12	1	1						1	

Stencils and stamps	4	64	57	7	56	49	7	8	7		1	1			
Stone and marble	1	60	60		60	60									
Stoves and furnaces	3	42	42		42	42									
Tailor shops	93	1120	644	476	1070	620	450	50	21	20	9	3	6		
Tinware, sheet, metal, etc.	13	460	431	29	438	409	29	22	22						
Tools, hardware, etc.	4	407	401	6	398	392	6	9	9						
Trunks, valises, etc.	8	59	53	6	57	51	6	2	1		1			1	
Wire and wire products	1	6	6		6	6									
Miscellaneous	26	431	376	55	413	358	55	18	14		4	4			
Totals	809	29618	23195	6423	28685	22552	6133	933	589	274	70	48	16	6	
Wholesale.															
Boots and shoes	5	48	38	10	45	35	10	3	3						
Building materials	8	204	188	16	202	186	16	2	2						
Butchers' supplies	3	40	34	6	38	32	6	2	2						
Cigars, cigarettes, etc.	5	109	95	14	109	95	14								
Clothing and furnishings	8	112	98	14	106	92	14	6	6						
Commission merchants	25	503	454	49	501	452	49	2	2						
Drugs and chemicals	9	473	398	75	455	380	75	18	15		3	3			
Dry goods	1	71	67	4	70	66	4	1	1						
Furniture	5	152	135	17	147	130	17	5	5						
Gas and electric goods	8	306	245	61	297	236	61	9	9						
Glass	3	57	52	5	57	52	5								
Groceries	16	559	473	86	542	465	77	17	7	8	2	1	1		
Hardware	13	802	704	98	782	685	97	20	19	1					
Importers	1	18	9	9	18	9	9								
Jewelry	6	128	92	36	109	81	28	19	11	8					
Leather goods	3	26	22	4	24	20	4	2	2						
Machinery, implements, engines, etc.	25	575	511	64	562	500	62	13	10	2	1	1			
Manufacturers' agencies	14	160	122	38	154	117	37	6	4	1	1	1			
Meats	2	149	143	6	149	143	6								
Millinery	6	144	47	97	140	46	94	4	1	3					
Notions, toys, etc.	4	111	80	31	111	80	31								
Paints, oils, wallpaper, etc.	9	174	161	13	171	158	13	3	3						
Paper	4	348	324	24	343	319	24	5	4		1	1			
Plumbers' supplies	5	143	125	18	141	123	18	2	1		1	1			
Rubber goods	3	17	13	4	16	12	4	1	1						
Seeds	2	87	63	24	86	62	24	1			1	1			
Stationery	4	74	56	18	71	54	17	3	2	1					
Miscellaneous	14	188	166	22	183	162	21	5	1	1	3	2		1	
Totals	211	5778	4915	863	5629	4792	837	149	111	25	13	11	1	1	

TABLE No. 2. CITY OF LOS ANGELES.

Inspection of Factories and Stores. (Showing number and sex of adult and minor employees, by industries.)—Continued.

INDUSTRY.	Number of establishments visited	Total number of employees	Total male	Total female	ADULTS.			MINORS.							
					Total	Male	Female	Total under 18 years	16 to 18 years.		Total under 16 years	15 to 16 years.		12 to 15 years.	
									Male	Female		Male	Female	Male	Female
Retail.															
Automobiles and accessories	9	136	119	17	133	116	17	3	3						
Bicycles, motorcycles, etc.	5	70	58	12	70	58	12								
Boots and shoes	17	307	254	53	282	229	53	25	24		1			1	
Butcher shops	12	177	163	14	166	152	14	11	11						
Clothing and furnishings	36	1216	519	697	1177	486	691	39	28	4	7	2	2	3	
Confectionery	14	166	68	98	164	67	97	2	1	1					
Department stores	7	2234	903	1331	1912	813	1099	322	56	185	81	31	45	3	2
Dry goods	12	3095	875	2220	2789	788	2001	306	47	134	125	34	78	6	7
Drug stores	172	761	665	96	649	553	96	112	80		32	26		6	
Florists and nurseries	4	53	49	4	46	42	4	7	7						
Furniture	21	906	767	139	897	759	138	9	7		2	1	1		
Fixtures, gas and electric	7	95	84	11	94	83	11	1	1						
Groceries	17	951	730	221	909	689	220	42	32	1	9	8		1	
Hardware	17	348	324	24	339	315	24	9	9						
Household goods, crockery, etc.	2	197	142	55	196	141	55	1	1						
Jewelry	16	292	245	47	281	234	47	11	8		3	2		1	
Leather goods	1	5	4	1	5	4	1								
Millinery	24	325	22	303	300	20	280	25	2	23					
Music, musical instruments, etc.	11	303	251	52	294	242	52	9	5		4	4			
Paints, glass, wallpaper, etc.	5	49	45	4	49	45	4								
Stationery	11	250	189	61	234	173	61	16	14		2	2			
Miscellaneous	22	313	254	59	301	243	58	12	8	1	3	2		1	
Totals	442	12249	6730	5519	11287	6252	5035	962	344	349	269	112	126	22	9
Miscellaneous.															
Feed and fuel	8	150	137	13	150	137	13								
Lumber and shipping	8	344	334	10	342	332	10	2	2						
Offices	13	238	158	80	225	145	80	13	13						

Teaming, livery and storage	25	904	876	28	901	873	28	3	3	-----	-----	-----	-----	-----	-----
General	17	364	298	66	361	295	66	3	3	-----	-----	-----	-----	-----	-----
Totals	71	2000	1803	197	1979	1782	197	21	21						
Recapitulation.															
Manufacturing	809	29618	23195	6423	28685	22552	6133	933	589	274	70	48	16	6	-----
Wholesale	211	5778	4915	863	5629	4792	837	149	111	25	13	11	1	1	-----
Retail	442	12249	6730	5519	11287	6252	5035	962	344	349	269	112	126	22	9
Miscellaneous	71	2000	1803	197	1979	1782	197	21	21	-----	-----	-----	-----	-----	-----
Grand totals	1533	49645	36643	13002	47580	35378	12202	2065	1065	648	352	171	143	29	9

TABLE No. 3. CITY OF OAKLAND.

Inspection of Factories and Stores. (Showing number and sex of adult and minor employees, by industries.)

INDUSTRY.	Number of establishments visited	Total number of employees	Total male	Total female	ADULTS.			MINORS.							
					Total	Male	Female	Total under 18 years	16 to 18 years. Male	16 to 18 years. Female	Total under 16 years	15 to 16 years. Male	15 to 16 years. Female	12 to 15 years. Male	12 to 15 years. Female
Manufacturing.															
Awnings, tents, etc.	3	27	19	8	27	19	8								
Bakery products	11	198	178	20	195	175	20	3	3						
Bar and store fixtures, billiards, etc.	1	5	5		4	4		1	1						
Boilers, engines and tanks	5	280	278	2	264	262	2	16	16						
Boots and shoes	1	96	60	36	89	57	32	7	1	4	2	2			
Boxes, paper	1	79	25	54	52	20	32	27	5	13	9		9		
Boxes, wood	2	39	38	1	36	35	1	3	3						
Brick, tile, pottery, etc.	1	5	5		5	5									
Butter and dairy products	4	105	86	19	102	85	17	3	1	2					
Carriages and wagons	1	16	15	1	16	15	1								
Cigars and cigarettes	2	7	6	1	7	6	1								
Clothing	5	123	49	74	118	45	73	5	1	1	3			3	
Coffee, spices, etc.	1	2	1	1	2	1	1								
Confectionery	3	46	11	35	43	11	32	3		3					
Copper and brass goods	2	36	36		34	34		2	2						
Drugs and chemicals	3	44	36	8	41	34	7	3	2	1					
Dyeing and cleaning	4	86	39	47	86	39	47								
Electrical goods and supplies	3	133	89	44	131	87	44	2	1		1	1			
Fixtures, gas and electric	3	284	57	227	241	51	190	43	6	37					
Flouring mill products	3	76	74	2	74	72	2	2	2						
Foundries	9	539	538	1	462	461	1	77	73		4	4			
Furniture	4	48	44	4	47	43	4	1	1						
Garages and repair shops	5	30	29	1	28	27	1	2	1		1	1			
Glass and glassware	2	9	8	1	9	8	1								
Gloves	4	63	29	34	57	25	32	6	4	1	1		1		
Harness and saddlery	1	4	4		4	4									
Ice	1	4	4		4	4									
Jewelry, watches, silversmiths, etc.	2	19	18	1	17	16	1	2	2						
Laundries, hand	3	21	9	12	21	9	12								
Laundries, steam	10	633	278	355	632	278	354	1		1					
Leather and leather goods	1	17	17		17	17									
Liquors, malt	6	115	113	2	115	113	2								

Lithographing	1	19	16	3	18	15	3	1	1	------	------	------	------	------	------
Lumber and milling	19	928	910	18	894	876	18	34	33	------	1	1	------	------	------
Machinery and machine shop products	9	257	253	4	250	246	4	7	7	------	------	------	------	------	------
Mattresses, pillows and bedding	4	52	41	11	51	40	11	1	1	------	------	------	------	------	------
Mouldings and frames, picture	2	21	12	9	19	11	8	2	1	1	------	------	------	------	------
Oils and grease	1	19	19	------	19	19	------	------	------	------	------	------	------	------	------
Paints, varnishes, etc.	5	209	201	8	200	192	8	9	9	------	------	------	------	------	------
Pastes, macaroni, etc.	1	8	8	------	8	8	------	------	------	------	------	------	------	------	------
Patterns and models	2	6	6	------	6	6	------	------	------	------	------	------	------	------	------
Photographs and photo-engraving	1	8	8	------	7	7	------	1	1	------	------	------	------	------	------
Pickles, preserves, sauces, etc.	3	48	16	32	47	16	31	1	------	1	------	------	------	------	------
Plating	3	25	24	1	23	22	1	2	1	------	1	1	------	------	------
Printing, binding, newspapers, etc.	14	479	334	145	448	309	139	31	24	6	1	1	------	------	------
Restaurants	7	195	136	59	192	134	58	3	2	------	1	------	1	------	------
Rubber goods	1	36	34	2	34	32	2	2	2	------	------	------	------	------	------
Safes and vaults	1	12	12	------	12	12	------	------	------	------	------	------	------	------	------
Shipwrights, caulking, etc.	2	23	23	------	23	23	------	------	------	------	------	------	------	------	------
Slaughtering, meat packing, etc.	6	178	175	3	177	174	3	1	------	------	1	1	------	------	------
Soda and mineral water	2	23	23	------	23	23	------	------	------	------	------	------	------	------	------
Terra cotta and stucco work	3	77	77	------	77	77	------	------	------	------	------	------	------	------	------
Tinware, sheet metal, etc.	3	34	33	1	31	30	1	3	3	------	------	------	------	------	------
Wire and wire products	1	37	37	------	21	21	------	16	16	------	------	------	------	------	------
Miscellaneous	7	608	292	316	378	202	176	230	65	116	49	24	21	1	3
Totals	205	6491	4888	1603	5938	4557	1381	553	291	187	75	36	32	4	3
Wholesale.															
Building materials	2	28	27	1	28	27	1	------	------	------	------	------	------	------	------
Clothing	1	22	2	20	21	1	20	1	1	------	------	------	------	------	------
Furniture	1	5	3	2	4	2	2	1	------	------	1	1	------	------	------
Groceries	1	23	21	2	23	21	2	------	------	------	------	------	------	------	------
Hardware	2	38	31	7	37	30	7	1	1	------	------	------	------	------	------
Manufacturers' agents	5	77	67	10	77	67	10	------	------	------	------	------	------	------	------
Plumbing supplies	2	17	16	1	17	16	1	------	------	------	------	------	------	------	------
Miscellaneous	6	76	72	4	76	72	4	------	------	------	------	------	------	------	------
Totals	20	286	239	47	283	236	47	3	2	------	1	1			
Retail.															
Automobile accessories	6	55	47	8	52	44	8	3	3	------	------	------	------	------	------
Boots and shoes	2	29	24	5	27	22	5	2	1	------	1	1	------	------	------
Butcher shops	3	44	36	8	44	36	8	------	------	------	------	------	------	------	------
Clothing	12	324	176	148	302	159	143	22	12	5	5	5	------	------	------
Confectionery	5	128	50	78	115	37	78	13	10	------	3	3	------	------	------

TABLE No. 3. CITY OF OAKLAND.

Inspection of Factories and Stores. (Showing number and sex of adult and minor employees, by industries.)—Continued.

INDUSTRY.	Number of establishments visited	Total number of employees	Total male	Total female	ADULTS.			MINORS.							
					Total	Male	Female	Total under 18 years	16 to 18 years.		Total under 16 years	15 to 16 years.		12 to 15 years.	
									Male	Female		Male	Female	Male	Female
Department stores	3	404	196	208	349	179	170	55	14	27	14	1	11	2	
Drug stores	32	215	172	43	187	145	42	28	14	1	13	11		2	
Dry goods	4	761	216	515	647	204	443	114	17	56	41	21	16	4	
Furniture	6	202	170	32	199	167	32	3	2		1	1			
Groceries	5	163	139	24	146	122	24	17	17						
Hardware	1	58	52	6	58	52	6								
Household goods, crockery, glassware, etc.	4	96	48	48	95	47	48	1			1	1			
Jewelry	1	14	11	3	13	10	3	1	1						
Millinery	3	51	2	49	49	1	48	2		1	1			1	
Music and musical instruments	3	61	50	11	58	47	11	3			3	3			
Stationery, books, etc.	1	6	5	1	5	4	1	1			1			1	
Miscellaneous	1	5	3	2	5	3	2								
Totals	92	2616	1427	1189	2351	1279	1072	265	91	90	84	47	27	10	
Miscellaneous.															
Feed and fuel	3	68	67	1	68	67	1								
Lumber and shipping	1	7	7		7	7									
Milk depots	3	22	19	3	22	19	3								
Teaming, livery and storage	7	69	64	5	69	64	5								
General	1	29	2	27	29	2	27								
Totals	15	195	159	36	195	159	36								
Recapitulation.															
Manufacturing	205	6491	4888	1603	5938	4557	1381	553	291	187	75	36	32	4	3
Wholesale	20	286	239	47	283	236	47	3	2		1	1			
Retail	92	2616	1427	1189	2351	1279	1072	265	91	90	84	47	27	10	
Miscellaneous	15	195	159	36	195	159	36								
Grand totals	332	9588	6713	2875	8767	6231	2536	821	384	277	160	84	59	14	3

TABLE No. 4. CITY OF SACRAMENTO.

Inspection of Factories and Stores. (Showing number and sex of adult and minor employees, by industries.)

INDUSTRY.	Number of establishments visited	Total number of employees	Total male	Total female	ADULTS. Total	ADULTS. Male	ADULTS. Female	MINORS. Total under 18 years	MINORS. 16 to 18 years. Male	MINORS. 16 to 18 years. Female	MINORS. Total under 16 years	MINORS. 15 to 16 years. Male	MINORS. 15 to 16 years. Female	MINORS. 12 to 15 years. Male	MINORS. 12 to 15 years. Female
Manufacturing.															
Bakery products	9	117	91	26	117	91	26								
Brick	1	127	126	1	127	126	1								
Carriages and wagons	3	59	58	1	57	56	1	2	2						
Cigars and cigarettes	3	45	32	13	45	32	13								
Clothing	5	55	32	23	52	30	22	3			3	2			1
Confectionery	2	109	41	68	92	39	53	17	2	13	2		1		1
Extracts, spices, etc.	2	16	10	6	15	10	5	1		1					
Electrical goods and supplies	4	72	68	4	66	62	4	6	5		1			1	
Flouring mill products	1	39	39		39	39									
Harness and saddlery	3	82	78	4	78	75	3	4	3	1					
Ice	1	19	18	1	19	18	1								
Laundries, hand	4	28	17	11	27	16	11	1			1	1			
Laundries, steam	4	263	102	161	256	100	156	7	2	5					
Liquors, malt	2	237	236	1	233	232	1	4	4						
Lumber and milling	4	111	106	5	108	104	4	3	2	1					
Machinery and foundry products	6	131	131		126	126		5	5						
Newspapers	3	312	290	22	312	290	22								
Photographs	2	18	15	3	17	14	3	1			1			1	
Printing and binding	10	156	135	21	132	113	19	24	14		10	4	2	4	
Restaurants	6	74	51	23	74	51	23								
Slaughtering and meat packing	1	15	15		15	15									
Tinware, sheet metal, etc.	2	34	32	2	32	30	2	2	2						
Wineries	2	89	81	8	89	81	8								
Miscellaneous	6	55	46	9	55	46	9								
Totals	86	2263	1850	413	2183	1796	387	80	41	21	18	7	3	6	2

TABLE No. 4. CITY OF SACRAMENTO.

Inspection of Factories and Stores. (Showing number and sex of adult and minor employees, by industries.)—Continued.

INDUSTRY.	Number of establishments visited	Total number of employees	Total male	Total female	ADULTS.			MINORS.							
					Total	Male	Female	Total under 18 years	16 to 18 years.		Total under 16 years	15 to 16 years.		12 to 15 years.	
									Male	Female		Male	Female	Male	Female
Wholesale.															
Commission merchants	6	170	147	23	167	144	23	3	3	-----	-----	-----	-----	-----	-----
Drugs	2	73	59	14	70	57	13	3	2	1	-----	-----	-----	-----	-----
Groceries	4	113	103	10	112	102	10	1	1	-----	-----	-----	-----	-----	-----
Hardware	2	96	79	17	93	76	17	3	3	-----	-----	-----	-----	-----	-----
Plumbing	2	45	36	9	45	36	9	-----	-----	-----	-----	-----	-----	-----	-----
Miscellaneous	5	130	110	20	123	104	19	7	4	1	2	2	-----	-----	-----
Totals	21	627	534	93	610	519	91	17	13	2	2	2			
Retail.															
Butcher shops	6	77	72	5	74	69	5	3	2	-----	1	1	-----	-----	-----
Clothing	6	111	52	59	107	48	59	4	2	-----	2	1	-----	1	-----
Confectionery	4	63	22	41	61	20	41	2	1	-----	1	-----	-----	1	-----
Department stores	5	960	285	675	771	244	527	189	33	123	33	7	19	1	6
Drug stores	16	94	89	5	66	61	5	28	11	-----	17	8	-----	9	-----
Furniture	3	246	183	63	236	173	63	10	7	-----	3	3	-----	-----	-----
General merchandise	1	73	65	8	73	65	8	-----	-----	-----	-----	-----	-----	-----	-----
Groceries	2	40	35	5	36	32	4	4	2	1	1	1	-----	-----	-----
Hardware	2	65	58	7	64	57	7	1	1	-----	-----	-----	-----	-----	-----
Jewelry	2	10	9	1	8	7	1	2	1	-----	1	1	-----	-----	-----
Millinery	2	17	2	15	14	1	13	3	1	2	-----	-----	-----	-----	-----
Stationery	2	11	8	3	10	7	3	1	-----	-----	1	-----	-----	1	-----
Miscellaneous	3	61	56	5	61	56	5	-----	-----	-----	-----	-----	-----	-----	-----
Totals	54	1828	936	892	1581	840	741	247	61	126	60	22	19	13	6
Miscellaneous.															
Lumber and shipping	2	63	62	1	63	62	1	-----	-----	-----	-----	-----	-----	-----	-----
Offices	3	26	15	11	25	15	10	1	-----	1	-----	-----	-----	-----	-----
Teaming, livery and storage	4	50	49	1	48	47	1	2	1	-----	1	1	-----	-----	-----
Totals	9	139	126	13	136	124	12	3	1	1	1	1			

Recapitulation.															
Manufacturing	86	2263	1850	413	2183	1796	387	80	41	21	18	7	3	6	2
Wholesale	21	627	534	93	610	519	91	17	13	2	2	2	-----	-----	-----
Retail	54	1828	936	892	1581	840	741	247	61	126	60	22	19	13	6
Miscellaneous	9	139	126	13	136	124	12	3	1	1	1	1	-----	-----	-----
Grand totals	170	4857	3446	1411	4510	3279	1231	347	116	150	81	32	22	19	8

TABLE No. 5. CITY OF SAN JOSE.

Inspection of Factories and Stores. (Showing number and sex of adult and minor employees, by industries.)

INDUSTRY.	Number of establishments visited	Total number of employees	Total male	Total female	ADULTS.			MINORS.							
					Total	Male	Female	Total under 18 years	16 to 18 years.		Total under 16 years	15 to 16 years.		12 to 15 years.	
									Male	Female		Male	Female	Male	Female
Manufacturing.															
Bakery products	4	74	59	15	69	58	11	5	1	2	2		2		
Bricks, pottery, etc.	2	31	31		31	31									
Dairy products	2	23	21	2	23	21	2								
Dyeing and cleaning	3	42	27	15	42	27	15								
Garages and repair shops	3	32	29	3	32	29	3								
Laundries	5	174	79	95	167	78	89	7	1	6					
Liquors, malt	2	61	61		61	61									
Lumber and milling	3	137	135	2	125	123	2	12	12						
Machinery	2	115	113	2	113	111	2	2	2						
Printing and newspapers	3	132	121	11	131	120	11	1	1						
Restaurants	3	58	20	38	56	18	38	2	1		1	1			
Wooden boxes and baskets	3	16	15	1	16	15	1								
Miscellaneous	7	73	55	18	71	53	18	2	1		1			1	
Totals	42	968	766	202	937	745	192	31	19	8	4	1	2	1	
Wholesale.															
Groceries	2	36	33	3	36	33	3								
Machinery, implements, etc.	2	18	17	1	18	17	1								
Miscellaneous	4	32	32		32	32									
Totals	8	86	82	4	86	82	4								
Retail.															
Butcher shops	2	25	24	1	22	21	1	3	3						
Confectionery	3	22	5	17	22	5	17								
Clothing	10	132	41	91	126	36	90	6	5	1					
Department stores	2	67	28	39	50	27	23	17	1	16					
Drug stores	16	56	51	5	44	39	5	12	9		3	2		1	
Dry goods	5	246	69	177	230	64	166	16	4	10	2	1	1		
Furniture	4	70	62	8	69	61	8	1	1						
Groceries	4	38	35	3	38	35	3								

Paints, oils, etc.	2	10	8	2	10	8	2								
Miscellaneous	9	139	122	17	132	115	17	7	6		1			1	
Totals	57	805	445	360	743	411	332	62	29	27	6	3	1	2	
Miscellaneous.															
Feed and fuel	5	34	30	4	33	29	4	1	1						
Teaming, livery and storage	3	68	67	1	68	67	1								
Totals	8	102	97	5	101	96	5	1	1						
Recapitulation.															
Manufacturing	42	968	766	202	937	745	192	31	19	8	4	1	2	1	
Wholesale	8	86	82	4	86	82	4								
Retail	57	805	445	360	743	411	332	62	29	27	6	3	1	2	
Miscellaneous	8	102	97	5	101	96	5	1	1						
Grand totals	115	1961	1390	571	1867	1334	533	94	49	35	10	4	3	3	

TABLE No. 6. CITY OF STOCKTON.

Inspection of Factories and Stores. (Showing number and sex of adult and minor employees, by industries.)

INDUSTRY.	Number of establishments visited	Total number of employees	Total male	Total female	ADULTS.			MINORS.							
					Total	Male	Female	Total under 18 years	16 to 18 years.		Total under 16 years	15 to 16 years.		12 to 15 years.	
									Male	Female		Male	Female	Male	Female
Manufacturing.															
Bakery products	1	46	41	5	44	39	5	2	2						
Clothing	2	18	16	2	18	16	2								
Engines, boilers and tanks	3	249	246	3	226	223	3	23	22		1	1			
Flouring mill products	3	205	182	23	198	181	17	7	1	6					
Foundries and structural iron	3	60	60		60	60									
Hardware, plumbing, etc.	3	68	64	4	67	63	4	1	1						
Harness and saddlery	4	93	92	1	90	89	1	3	3						
Laundries	4	191	54	137	183	54	129	8		8					
Liquors, malt	2	55	54	1	55	54	1								
Lumber and milling	5	140	136	4	135	131	4	5	4		1	1			
Machinery	6	549	530	19	535	516	19	14	13	1					
Printing, newspapers, etc.	5	129	112	17	121	104	17	8	6		2	2			
Restaurants	2	30	23	7	30	23	7								
Slaughtering and meat packing	3	77	75	2	77	75	2								
Miscellaneous	3	54	48	6	54	48	6								
Totals	49	1964	1733	231	1893	1676	217	71	52	15	4	4			
Wholesale	5	76	61	15	76	61	15								
Retail.															
Clothing	5	164	25	139	152	21	131	12	4	8					
Confectionery	4	26	11	15	22	8	14	4	3	1					
Department stores	1	40	17	23	37	15	22	3	2	1					
Drug stores	15	62	56	6	38	33	5	24	14		10	6	1	3	
Dry goods	5	79	21	58	77	19	58	2	2						
Furniture	2	35	29	6	34	28	6	1	1						
Groceries	2	18	14	4	18	14	4								
Hardware	1	18	17	1	18	17	1								
Household goods	2	22	9	13	18	8	10	4	1	3					

Millinery	3	13	-----	13	11	-----	11	2	-----	2	-----	-----	-----	-----	-----
Miscellaneous	4	29	23	6	27	22	5	2	1	1	-----	-----	-----	-----	-----
Totals	44	506	222	284	452	185	267	54	28	16	10	6	1	3	-----
Miscellaneous	3	84	83	1	83	82	1	1	-----	-----	1	1	-----	-----	-----
Recapitulation.															
Manufacturing	49	1964	1733	231	1893	1676	217	71	52	15	4	4	-----	-----	-----
Wholesale	5	76	61	15	76	61	15	-----	-----	-----	-----	-----	-----	-----	-----
Retail	44	506	222	284	452	185	267	54	28	16	10	6	1	3	-----
Miscellaneous	3	84	83	1	83	82	1	1	-----	-----	1	1	-----	-----	-----
Grand totals	101	2630	2099	531	2504	2004	500	126	80	31	15	11	1	3	-----

TABLE No. 7. CITY OF SAN DIEGO.

Inspection of Factories and Stores. (Showing number and sex of adult and minor employees, by industries.)

INDUSTRY.	Number of establishments visited	Total number of employees	Total male	Total female	ADULTS.			MINORS.							
					Total	Male	Female	Total under 18 years	16 to 18 years.		Total under 16 years	15 to 16 years.		12 to 15 years.	
									Male	Female		Male	Female	Male	Female
Manufacturing.															
Automobile accessories	1	4	4		4	4									
Awnings, tents, etc.	1	9	6	3	9	6	3								
Bakery products	7	103	89	14	102	89	13	1		1					
Cigars and cigarettes	1	95	76	19	93	75	18	2		1	1	1			
Clothing	2	6	3	3	6	3	3								
Confectionery	8	137	56	81	119	46	73	18	10	8					
Dyeing and cleaning	2	14	9	5	13	8	5	1			1	1			
Electrical goods and supplies	4	94	89	5	90	85	5	4	4						
Engines and tanks	1	20	20		20	20									
Flouring mill products	2	26	25	1	26	25	1								
Foundries	2	27	27		22	22		5	5						
Ice	1	18	18		18	18									
Jewelry	3	52	45	7	50	43	7	2			2	2			
Laundries	6	280	96	184	275	93	182	5	3	2					
Liquors, malt	1	46	46		46	46									
Lumber and milling	3	269	265	4	269	265	4								
Mattresses, beds, etc.	2	59	54	5	58	53	5	1	1						
Plating	2	6	6		6	6									
Plumbing, gas fitting, etc.	3	62	59	3	61	58	3	1	1						
Printing and newspapers	10	81	62	19	69	54	15	12	4	4	4	3		1	
Restaurants	21	336	247	89	336	247	89								
Slaughtering and meat packing	3	209	199	10	205	195	10	4	4						
Stoves and furnaces	1	21	20	1	21	20	1								
Tinware and sheet metal	3	39	39		37	37		2	2						
Miscellaneous	7	39	23	16	36	20	16	3	1		2	1		1	
Totals	97	2052	1583	469	1991	1538	453	61	35	16	10	8		2	
Wholesale.															
Commission merchants	4	61	54	7	61	54	7								
Drugs	1	15	13	2	15	13	2								

Groceries	7	114	98	16	113	97	16	1			1	1			
Hardware	4	128	118	10	124	114	10	4	2		2	1		1	
Miscellaneous	8	103	99	4	103	99	4								
Totals	24	421	382	39	416	377	39	5	2		3	2		1	
Retail.															
Automobile supplies	4	35	29	6	35	29	6								
Clothing	13	346	180	166	302	143	159	44	11	7	26	8		18	
Department stores	5	90	68	22	67	53	14	23	6	6	11	2	2	7	
Drug stores	13	77	73	4	63	59	4	14	10		4	4			
Dry goods	4	117	38	79	115	36	79	2	2						
Furniture	5	106	93	13	104	91	13	2	2						
Groceries	3	83	60	23	79	58	21	4	2	2					
Hardware	1	5	5		5	5									
Millinery	9	68	1	67	60	1	59	8		8					
Music and musical instruments	4	35	24	11	34	23	11	1			1	1			
Stationery	4	42	14	28	40	12	28	2			2	1		1	
Miscellaneous	6	27	18	9	22	15	7	5	1		4	1	2	1	
Totals	71	1031	603	428	926	525	401	105	34	23	48	17	4	27	
Miscellaneous:															
Feed and fuel	1	26	25	1	26	25	1								
Lumber and shipping	2	81	81		81	81									
Teaming, livery and storage	5	92	84	8	92	84	8								
General	4	19	1	18	19	1	18								
Totals	12	218	191	27	218	191	27								
Recapitulation.															
Manufacturing	97	2052	1583	469	1991	1538	453	61	35	16	10	8		2	
Wholesale	24	421	382	39	416	377	39	5	2		3	2		1	
Retail	71	1031	603	428	926	525	401	105	34	23	48	17	4	27	
Miscellaneous	12	218	191	27	218	191	27								
Grand totals	204	3722	2759	963	3551	2631	920	171	71	39	61	27	4	30	

TABLE No. 8. CITY OF BERKELEY.

Inspection of Factories and Stores. (Showing number and sex of adult and minor employees, by industries.)

INDUSTRY.	Number of establishments visited	Total number of employees	Total male	Total female	ADULTS. Total	ADULTS. Male	ADULTS. Female	MINORS. Total under 18 years	MINORS. 16 to 18 years. Male	MINORS. 16 to 18 years. Female	MINORS. Total under 16 years	MINORS. 15 to 16 years. Male	MINORS. 15 to 16 years. Female	MINORS. 12 to 15 years. Male	MINORS. 12 to 15 years. Female
Manufacturing:															
Bakery products	5	123	104	19	119	100	19	4	3	1					
Beds, spring	1	29	29		25	25		4	4						
Confectionery	1	50	19	31	45	17	28	5	2	3					
Clothing	2	159	40	119	142	36	106	17	4	11	2		2		
Culverts	1	30	30		30	30									
Dairy products	3	33	29	4	32	28	4	1	1						
Drugs and chemicals	3	64	48	16	63	48	15	1	1						
Dyeing and cleaning	1	27	15	12	27	15	12								
Electrical goods and supplies	1	7	7		7	7									
Elevators	1	42	42		41	41		1	1						
Engines	1	33	33		28	28		5	5						
Fertilizers	1	76	75	1	76	75	1								
Foundry and machine shop products	1	70	70		68	68		2	2						
Ink	2	40	37	3	39	36	3	1			1	1			
Laundries, hand	2	22	16	6	22	16	6								
Laundries, steam	2	76	30	46	73	28	45	3	2	1					
Leather and leather goods	1	25	25		22	22		3	2		1	1			
Liquors, malt	1	12	11	1	12	11	1								
Lumber and milling	4	47	44	3	47	44	3								
Oils, cocoanut	1	42	42		42	42									
Oils, mineral	1	61	60	1	61	60	1								
Plumbing	1	5	5		4	4		1	1						
Printing and newspapers	6	73	63	10	67	57	10	6	5		1	1			
Soap, tallow, etc.	1	53	46	7	51	44	7	2	2						
Miscellaneous	2	14	12	2	12	12		2		2					
Totals	46	1213	932	281	1155	894	261	58	35	18	5	3	2		
Retail.															
Clothing	2	16	9	7	14	8	6	2		1	1	1			
Confectionery	2	18	9	9	16	9	7	2		2					
Department stores	1	25	10	15	18	6	12	7	4	3					

Drug stores	10	35	31	4	27	23	4	8	6	------	2	1	------	1	-----
Dry goods	3	42	15	27	41	15	26	1	------	1	------	------	------	------	-----
Furniture	1	16	16	-------	16	16	-------	------	------	------	------	------	------	------	-----
Goceries, markets, etc.	6	99	75	24	97	74	23	2	1	1	------	------	------	------	-----
Totals	25	251	165	86	229	151	78	22	11	8	3	2	------	1	-----
Miscellaneous.															
Teaming, livery, storage, etc.	2	36	35	1	36	35	1	------	------	------	------	------	------	------	-----
Recapitulation.															
Manufacturing	46	1213	932	281	1155	894	261	58	35	18	5	3	2	------	-----
Retail	25	251	165	86	229	151	78	22	11	8	3	2	------	1	-----
Miscellaneous	2	36	35	1	36	35	1	------	------	------	------	------	------	------	-----
Grand totals	73	1500	1132	368	1420	1080	340	80	46	26	8	5	2	1	-----

TABLE No. 9. CITY OF ALAMEDA.

Inspection of Factories and Stores. (Showing number and sex of adult and minor employees, by industries.)

INDUSTRY.	Number of establishments visited	Total number of employees	Total male	Total female	ADULTS.			MINORS.							
					Total	Male	Female	Total under 18 years	16 to 18 years.		Total under 16 years	15 to 16 years.		12 to 15 years.	
									Male	Female		Male	Female	Male	Female
Manufacturing.															
Bakery products	1	7	5	2	7	5	2								
Borax	1	48	38	10	48	38	10								
Bricks	1	121	121		121	121									
Laundries	3	57	34	23	56	34	22	1		1					
Liquors, malt	1	12	12		12	12									
Lumber and milling	2	281	279	2	269	267	2	12	12						
Machinery	3	411	406	5	407	402	5	4	4						
Matches	1	18	18		18	18									
Paints, oils, etc.	1	6	6		6	6									
Printing, newspapers, etc.	2	32	29	3	32	29	3								
Rugs and carpets	1	24	20	4	21	18	3	3	2	1					
Totals	17	1017	968	49	997	950	47	20	18	2					
Retail.															
Butcher shops	1	12	10	2	12	10	2								
Confectionery	2	8	3	5	8	3	5								
Drug stores	8	21	19	2	13	11	2	8	7		1	1			
Dry goods	2	20	4	16	17	1	16	3	3						
Totals	13	61	36	25	50	25	25	11	10		1	1			
Miscellaneous.															
Milk depots	2	16	14	2	16	14	2								
Recapitulation.															
Manufacturing	17	1017	968	49	997	950	47	20	18	2					
Retail	13	61	36	25	50	25	25	11	10		1	1			
Miscellaneous	2	16	14	2	16	14	2								
Grand totals	32	1094	1018	76	1063	989	74	31	28	2	1	1			

TABLE No. 10. CITY OF PASADENA.

Inspection of Factories and Stores. (Showing number and sex of adult and minor employees, by industries.)

INDUSTRY.	Number of establishments visited	Total number of employees	Total male	Total female	ADULTS.			MINORS.							
					Total	Male	Female	Total under 18 years	16 to 18 years.		Total under 16 years	15 to 16 years.		12 to 15 years.	
									Male	Female		Male	Female	Male	Female
Manufacturing.															
Awnings, tents, etc	1	8	6	2	7	5	2	1	1						
Bakery products	5	55	33	22	54	32	22	1			1			1	
Clothing	4	20	15	5	20	15	5								
Contracting, electrical	1	13	12	1	13	12	1								
Fixtures, gas and electric	2	12	10	2	11	9	2	1	1						
Flouring mill products	1	15	14	1	15	14	1								
Foundries	1	30	29	1	30	29	1								
Garages and repair shops	3	9	7	2	9	7	2								
Interior decorating	2	14	8	6	14	8	6								
Laundries	4	231	102	129	229	100	129	2			2	1		1	
Leather and leather goods	2	5	5		5	5									
Lumber and milling	2	46	46		46	46									
Machinery and machine shop products	2	32	30	2	32	30	2								
Plumbing	2	52	49	3	52	49	3								
Printing, newspapers, etc	5	108	89	19	108	89	19								
Restaurants	7	50	28	22	50	28	22								
Tinware, sheet metal, etc	1	5	5		5	5									
Miscellaneous	3	17	14	3	16	13	3	1	1						
Totals	48	722	502	220	716	496	220	6	3		3	1		2	
Retail.															
Boots and shoes	2	14	13	1	14	13	1								
Butcher shops	2	11	9	2	8	6	2	3	3						
Clothing	5	31	25	6	31	25	6								
Confectionery	2	8	5	3	8	5	3								
Drug stores	7	25	24	1	19	18	1	6	5		1	1			
Dry goods	5	85	31	54	85	31	54								
Furniture	2	39	33	6	39	33	6								
Groceries	5	203	180	23	202	179	23	1			1				
Hardware	1	21	18	3	21	18	3							1	

TABLE No. 10. CITY OF PASADENA.

Inspection of Factories and Stores. (Showing number and sex of adult and minor employees, by industries.)—Continued.

INDUSTRY.	Number of establishments visited	Total number of employees	Total male	Total female	ADULTS.			MINORS.							
					Total	Male	Female	Total under 18 years	16 to 18 years.		Total under 16 years	15 to 16 years.		12 to 15 years.	
									Male	Female		Male	Female	Male	Female
Jewelry	2	13	12	1	12	11	1	1	1	-----	-----	-----	-----	-----	-----
Millinery	2	9	1	8	9	1	8	-----	-----	-----	-----	-----	-----	-----	-----
Ostrich feathers	2	36	10	26	36	10	26	-----	-----	-----	-----	-----	-----	-----	-----
Stationery	2	13	7	6	13	7	6	-----	-----	-----	-----	-----	-----	-----	-----
Miscellaneous	2	19	4	15	11	2	9	8	2	6	-----	-----	-----	-----	-----
Totals	41	527	372	155	508	359	149	19	11	6	2	1	-----	1	-----
Miscellaneous.															
Lumber and shipping	2	12	12	-----	12	12	-----	-----	-----	-----	-----	-----	-----	-----	-----
Offices	1	16	12	4	16	12	4	-----	-----	-----	-----	-----	-----	-----	-----
Totals	3	28	24	4	28	24	4	-----	-----	-----	-----	-----	-----	-----	-----
Recapitulation.															
Manufacturing	48	722	502	220	716	496	220	6	3	-----	3	1	-----	2	-----
Retail	41	527	372	155	508	359	149	19	11	6	2	1	-----	1	-----
Miscellaneous	3	28	24	4	28	24	4	-----	-----	-----	-----	-----	-----	-----	-----
Grand totals	92	1277	898	379	1252	879	373	25	14	6	5	2	-----	3	-----

TABLE No. 11. MISCELLANEOUS TOWNS.

Inspection of Factories and Stores. (Showing number and sex of adult and minor employees, by class of industry.)

INDUSTRY.	Number of establishments visited	Total number of employees	Total male	Total female	ADULTS.			MINORS.							
					Total	Male	Female	Total under 18 years	16 to 18 years.		Total under 16 years	15 to 16 years.		12 to 15 years.	
									Male	Female		Male	Female	Male	Female
Bay Shore Cities—Martinez, Pittsburg, Antioch and Selby.															
Manufacturing	17	2464	2397	67	2422	2357	65	42	31	2	9	4		5	
Retail	3	4	4		4	4									
Totals	20	2468	2401	67	2426	2361	65	42	31	2	9	4		5	
Benicia.															
Manufacturing	9	370	351	19	347	332	15	23	14	4	5	4		1	
Retail	1	3	3		1	1		2	2						
Miscellaneous	1	5	3	2	4	2	2	1			1			1	
Totals	11	378	357	21	352	335	17	26	16	4	6	4		2	
Calexico.															
Manufacturing	2	5	3	2	5	3	2								
Retail	2	6	6		6	6									
Totals	4	11	9	2	11	9	2								
Chico.															
Manufacturing	15	492	457	35	484	450	34	8	4	1	3	3			
Retail	15	94	68	26	89	64	25	5	2	1	2	1		1	
Miscellaneous	1	12	12		12	12									
Totals	31	598	537	61	585	526	59	13	6	2	5	4		1	
El Centro.															
Manufacturing	3	68	58	10	68	58	10								
Retail	6	33	28	5	32	27	5	1	1						
Miscellaneous	2	11			11	11									
Totals	11	112	97	15	111	96	15	1	1						

TABLE No. 11. MISCELLANEOUS TOWNS.

Inspection of Factories and Stores. (Showing number and sex of adult and minor employees, by class of industry.)—Continued.

INDUSTRY.	Number of establishments visited	Total number of employees	Total male	Total female	ADULTS.			MINORS.							
					Total	Male	Female	Total under 18 years	16 to 18 years.		Total under 16 years	15 to 16 years.		12 to 15 years.	
									Male	Female		Male	Female	Male	Female
Fresno.															
Manufacturing	13	539	479	60	536	476	60	3	2		1	1			
Wholesale	1	7	5	2	7	5	2								
Retail	14	116	59	57	92	52	40	24	5	16	3	2			1
Miscellaneous	3	56	52	4	52	49	3	4	3	1					
Totals	31	718	595	123	687	582	105	31	10	17	4	3			1
Haywards.															
Manufacturing	3	131	43	88	116	40	76	15	3	10	2		2		
Imperial.															
Manufacturing	5	22	21	1	22	21	1								
Retail	2	18	14	4	18	14	4								
Totals	7	40	35	5	40	35	5								
Lodi.															
Manufacturing	3	41	30	11	41	30	11								
Retail	4	16	5	11	14	4	10	2	1	1					
Totals	7	57	35	22	55	34	21	2	1	1					
Long Beach.															
Manufacturing	4	22	12	10	22	12	10								
Retail	8	105	44	61	102	41	61	3	2		1			1	
Miscellaneous	1	2	2		2	2									
Totals	13	129	58	71	126	55	71	3	2		1			1	
Marysville.															
Manufacturing	13	246	230	16	238	222	16	8	7		1			1	
Wholesale	2	45	41	4	45	41	4								

Retail	14	131	88	43	126	84	42	5	1	1	3	1	------	2	------
Miscellaneous	1	12	12	------	12	12	------	------	------	------	------	------	------	------	------
Totals	30	434	371	63	421	359	62	13	8	1	4	1	------	3	------
Merced.															
Manufacturing	3	20	13	7	20	13	7	------	------	------	------	------	------	------	------
Retail	6	32	17	15	32	17	15	------	------	------	------	------	------	------	------
Totals	9	52	30	22	52	30	22	------	------	------	------	------	------	------	------
Monterey.															
Manufacturing	8	151	124	27	141	114	27	10	8	------	2	1	------	1	------
Retail	8	43	22	21	42	21	21	1	1	------	------	------	------	------	------
Miscellaneous	2	20	20	------	20	20	------	------	------	------	------	------	------	------	------
Totals	18	214	166	48	203	155	48	11	9	------	2	1	------	1	------
Napa.															
Manufacturing	18	841	601	240	750	559	191	91	36	44	11	5	5	1	------
Retail	9	75	42	33	68	36	32	7	5	1	1	1	------	------	------
Totals	27	916	643	273	818	595	223	98	41	45	12	6	5	1	------
Oroville.															
Manufacturing	8	159	141	18	159	141	18	------	------	------	------	------	------	------	------
Retail	8	55	36	19	53	34	19	2	1	------	1	1	------	------	------
Miscellaneous	2	9	9	------	9	9	------	------	------	------	------	------	------	------	------
Totals	18	223	186	37	221	184	37	2	1	------	1	1	------	------	------
Oxnard.															
Manufacturing	7	755	736	19	748	729	19	7	3	------	4	1	------	3	------
Retail	4	18	18	------	17	17	------	1	1	------	------	------	------	------	------
Totals	11	773	754	19	765	746	19	8	4	------	4	1	------	3	------
Palo Alto.															
Manufacturing	2	20	8	12	20	8	12	------	------	------	------	------	------	------	------
Retail	6	54	30	24	51	27	24	3	2	------	1	1	------	------	------
Totals	8	74	38	36	71	35	36	3	2	------	1	1	------	------	------

TABLE No. 11. MISCELLANEOUS TOWNS.

Inspection of Factories and Stores. (Showing number and sex of adult and minor employees, by class of industry.)—Continued.

INDUSTRY.	Number of establishments visited	Total number of employees	Total male	Total female	ADULTS.			MINORS.							
					Total	Male	Female	Total under 18 years	16 to 18 years.		Total under 16 years	15 to 16 years.		12 to 15 years.	
									Male	Female		Male	Female	Male	Female
Petaluma.															
Manufacturing	18	711	491	220	667	473	194	44	15	25	4	3	1		
Retail	10	79	57	22	69	48	21	10	5	1	4	3		1	
Miscellaneous	3	106	103	3	104	102	2	2		1	1			1	
Totals	31	896	651	245	840	623	217	56	20	27	9	6	1	2	
Redwood City.															
Manufacturing	10	240	217	23	238	215	23	2	1		1	1			
Retail	4	16	10	6	14	8	6	2	2						
Miscellaneous	1	7	7		7	7									
Totals	15	263	234	29	259	230	29	4	3		1	1			
Redlands.															
Manufacturing	5	38	33	5	38	33	5								
Retail	4	29	21	8	28	20	8	1	1						
Totals	9	67	54	13	66	53	13	1	1						
Richmond.															
Manufacturing	5	103	83	20	102	82	20	1	1						
Retail	6	37	33	4	32	29	3	5	4	1					
Totals	11	140	116	24	134	111	23	6	5	1					
Riverside.															
Manufacturing	6	100	51	49	93	48	45	7	3		4		2		2
Retail	6	138	82	56	138	82	56								
Miscellaneous	1	9	9		9	9									
Totals	13	247	142	105	240	139	101	7	3		4		2		2

San Bernardino.															
Manufacturing	6	113	65	48	111	64	47	2	------	------	2	1	1	------	------
Retail	4	64	25	39	60	22	38	4	3	1	------	------	------	------	------
Totals	10	177	90	87	171	86	85	6	3	1	2	1	1	------	------
San Leandro.															
Manufacturing	3	93	59	34	83	55	28	10	4	6	------	------	------	------	------
San Mateo.															
Manufacturing	11	135	102	33	131	102	29	4	------	4	------	------	------	------	------
Retail	11	75	56	19	72	53	19	3	2	------	1	------	------	1	------
Miscellaneous	2	11	11	------	11	11	------	------	------	------	------	------	------	------	------
Totals	24	221	169	52	214	166	48	7	2	4	1	------	------	1	------
San Rafael.															
Manufacturing	10	178	122	56	168	116	52	10	5	4	1	1	------	------	------
Retail	8	39	32	7	33	26	7	6	3	------	3	1	------	2	------
Miscellaneous	1	5	5	------	4	4	------	1	------	------	1	------	------	1	------
Totals	19	222	159	63	205	146	59	17	8	4	5	2	------	3	------
Santa Barbara.															
Manufacturing	14	144	84	60	141	81	60	3	3	------	------	------	------	------	------
Retail	9	63	40	23	62	39	23	1	------	------	1	1	------	------	------
Miscellaneous	1	7	7	------	7	7	------	------	------	------	------	------	------	------	------
Totals	24	214	131	83	210	127	83	4	3	------	1	1	------	------	------
Santa Clara.															
Manufacturing	1	66	66	------	66	66	------	------	------	------	------	------	------	------	------
Wholesale	1	30	6	24	24	6	18	6	------	5	1	------	1	------	------
Retail	3	6	5	1	4	3	1	2	------	------	2	1	------	1	------
Totals	5	102	77	25	94	75	19	8	------	5	3	1	1	1	------
Santa Clara County, Miscellaneous Towns.															
Manufacturing	2	80	50	30	76	50	26	4	------	3	1	------	1	------	------
Retail	5	11	8	3	11	8	3	------	------	------	------	------	------	------	------
Totals	7	91	58	33	87	58	29	4	------	3	1	------	1	------	------

TABLE No. 11. MISCELLANEOUS TOWNS.

Inspection of Factories and Stores. (Showing number and sex of adult and minor employees, by class of industry.)—Continued.

INDUSTRY.	Number of establishments visited	Total number of employees	Total male	Total female	ADULTS.			MINORS.							
					Total	Male	Female	Total under 18 years	16 to 18 years.		Total under 16 years	15 to 16 years.		12 to 15 years.	
									Male	Female		Male	Female	Male	Female
Santa Cruz.															
Manufacturing	6	155	123	32	150	118	32	5	5	------	------	------	------	------	------
Retail	12	106	48	58	95	38	57	11	6	1	4	3	------	1	------
Totals	18	261	171	90	245	156	89	16	11	1	4	3	------	1	------
Santa Paula.															
Manufacturing	7	42	26	16	42	26	16	------	------	------	------	------	------	------	------
Retail	2	5	3	2	5	3	2	------	------	------	------	------	------	------	------
Totals	9	47	29	18	47	29	18	------	------	------	------	------	------	------	------
Santa Rosa.															
Manufacturing	10	238	191	47	227	189	38	11	------	7	4	2	1	------	1
Retail	1	16	14	2	16	14	2	------	------	------	------	------	------	------	------
Miscellaneous	2	10	10	------	10	10	------	------	------	------	------	------	------	------	------
Totals	13	264	215	49	253	213	40	11	------	7	4	2	1	------	1
Sonoma.															
Manufacturing	3	20	20	------	19	19	------	1	1	------	------	------	------	------	------
Retail	2	10	9	1	9	8	1	1	1	------	------	------	------	------	------
Miscellaneous	1	3	3	------	3	3	------	------	------	------	------	------	------	------	------
Totals	6	33	32	1	31	30	1	2	2	------	------	------	------	------	------
Stege.															
Manufacturing	6	220	201	19	217	198	19	3	3	------	------	------	------	------	------
Sunnyvale.															
Manufacturing	2	136	133	3	130	127	3	6	6	------	------	------	------	------	------

Sutter Creek.															
Manufacturing	2	25	18	7	25	18	7	-----	-----	-----	-----	-----	-----	-----	-----
Vallejo.															
Manufacturing	13	310	259	51	305	257	48	5	2	3	-----	-----	-----	-----	-----
Retail	9	99	34	65	94	32	62	5	2	3	-----	-----	-----	-----	-----
Totals	22	409	293	116	399	289	110	10	4	6	-----	-----	-----	-----	-----
Ventura.															
Manufacturing	6	40	32	8	40	32	8	-----	-----	-----	-----	-----	-----	-----	-----
Retail	7	40	30	10	39	29	10	1	1	-----	-----	-----	-----	-----	-----
Totals	13	80	62	18	79	61	18	1	1	-----	-----	-----	-----	-----	-----
Watsonville.															
Manufacturing	8	110	87	23	107	84	23	3	3	-----	-----	-----	-----	-----	-----
Retail	5	123	93	30	117	87	30	6	6	-----	-----	-----	-----	-----	-----
Miscellaneous	1	4	4	-----	4	4	-----	-----	-----	-----	-----	-----	-----	-----	-----
Totals	14	237	184	53	228	175	53	9	9	-----	-----	-----	-----	-----	-----
Yuba City.															
Manufacturing	1	6	4	2	6	4	2	-----	-----	-----	-----	-----	-----	-----	-----

TABLE No. 12. MISCELLANEOUS TOWNS.

Inspection of Factories and Stores. (Showing number and sex of adult and minor employees, by industries.)

INDUSTRY.	Number of establishments visited	Total number of employees	Total male	Total female	ADULTS.			MINORS.							
					Total	Male	Female	Total under 18 years	16 to 18 years.		Total under 16 years	15 to 16 years.		12 to 15 years.	
									Male	Female		Male	Female	Male	Female
Manufacturing.															
Bakery products	25	202	165	37	197	160	37	5	5						
Blacksmithing and horseshoeing	2	10	10		10	10									
Boots and shoes	3	230	177	53	187	149	38	43	21	15	7	6		1	
Boxes, paper	1	17	3	14	10	3	7	7		7					
Boxes, wood	2	33	33		32	32		1	1						
Brick and tile	3	325	323	2	325	323	2								
Carriages and wagons	2	14	13	1	14	13	1								
Clothing	7	253	44	209	220	42	178	33	1	25	7	1	5		1
Cotton gins	2	44	44		44	44									
Dairy products	9	112	94	18	108	90	18	4		3	1			1	
Drugs and chemicals	7	223	222	1	222	221	1	1	1						
Dyeing and cleaning	4	22	13	9	22	13	9								
Engines, boilers and tanks	2	53	52	1	53	52	1								
Explosives	4	624	588	36	613	578	35	11	9	1	1			1	
Fertilizers	1	35	35		35	35									
Flouring mill products	4	81	78	3	81	78	3								
Foundries	4	259	255	4	240	237	3	19	12	1	6	4		2	
Garages and repair shops	4	33	31	2	32	30	2	1	1						
Gloves	3	280	130	150	235	109	126	45	19	22	4	2	2		
Ice	4	33	33		33	33									
Laundries	37	742	297	445	724	293	431	18	3	8	7	1	4		2
Leather and leather goods	12	796	776	20	783	764	19	13	9		4	3	1		
Liquors, malt	9	113	111	2	113	111	2								
Lumber and milling	30	1102	1067	35	1082	1052	30	20	12	5	3	1		2	
Machinery and machine shop products	9	336	325	11	329	318	11	7	6		1			1	
Matches	2	440	434	6	439	433	6	1	1						
Packing, fish	2	114	88	26	107	81	26	7	6		1	1			
Paints, varnishes, etc.	1	16	16		15	15		1	1						
Paper	1	84	82	2	84	82	2								
Pickles, preserves, sauces, etc.	3	110	59	51	104	58	46	6	1	5					
Plumbing supplies	3	60	59	1	60	59	1								
Printing, binding and newspapers	44	701	616	85	663	585	78	38	24	6	8	2	1	5	
Restaurants	16	104	67	37	104	67	37								

Rubber goods	1	149	139	10	133	123	10	16	13		3	2		1	
Salt	1	25	8	17	21	8	13	4		4					
Silk	1	120	28	92	103	26	77	17	2	15					
Slaughtering and meat packing	4	22	20	2	22	20	2								
Smelting	2	436	425	11	431	421	10	5	4	1					
Soda and mineral water	6	40	40		38	38		2	1		1	1			
Sugar refining	2	1150	1127	23	1145	1122	23	5	2		3			3	
Wineries	4	110	109	1	108	107	1	2	2						
Miscellaneous	2	73	66	7	69	62	7	4	4						
Totals	285	9726	8302	1424	9390	8097	1293	336	161	118	57	24	13	17	3
Wholesale and Retail.															
Butcher shops, retail	8	85	79	6	83	77	6	2	1		1	1			
Clothing, retail	8	42	17	25	40	15	25	2	2						
Confectionery, retail	19	116	38	78	98	34	64	18	3	14	1			1	
Department stores	16	396	198	198	378	187	191	18	9	6	3		1	2	
Drug stores, retail	78	225	208	17	185	170	15	40	22	2	16	11		5	
Dry goods, retail	40	434	163	271	408	142	266	26	15	5	6	5		1	
Furniture, retail	4	21	21		21	21									
Groceries, retail	25	301	261	40	291	251	40	10	8		2			2	
Hardware, retail	8	77	71	6	77	71	6								
Iron, metal, etc., wholesale	1	7	5	2	7	5	2								
Jewelry, retail	1	6	5	1	5	4	1	1	1						
Meats, wholesale	1	10	9	1	10	9	1								
Millinery, retail	2	13		13	13		13								
Notions	2	8	3	5	7	2	5	1			1			1	
Miscellaneous	9	103	69	34	95	67	28	8	1	5	2	1	1		
Totals	222	1844	1147	697	1718	1055	663	126	62	32	32	18	2	12	
Miscellaneous.															
Feed and fuel	2	90	87	3	88	86	2	2		1	1			1	
Lumber yards	7	44	44		44	44									
Milk depots	2	32	29	3	28	26	2	4	3	1					
Teaming, livery and storage	15	123	120	3	121	118	3	2			2			2	
Totals	26	289	280	9	281	274	7	8	3	2	3			3	
Recapitulation.															
Manufacturing	285	9726	8302	1424	9390	8097	1293	336	161	118	57	24	13	17	3
Wholesale and retail	222	1844	1147	697	1718	1055	663	126	62	32	32	18	2	12	
Miscellaneous	26	289	280	9	281	274	7	8	3	2	3			3	
Grand totals	533	11859	9729	2130	11389	9426	1963	470	226	152	92	42	15	32	3

TABLE No. 13. SUMMARY FOR THE STATE.

Inspection of Factories and Stores. (Showing number and sex of adult and minor employees, by locality.)

INDUSTRY.	Number of establishments visited	Total number of employees	Total male	Total female	ADULTS.			MINORS.							
					Total	Male	Female	Total under 18 years	16 to 18 years. Male	16 to 18 years. Female	Total under 16 years	15 to 16 years. Male	15 to 16 years. Female	12 to 15 years. Male	12 to 15 years. Female
San Francisco	1998	60416	44494	15922	57457	42542	14915	2959	1587	826	546	292	151	73	30
Los Angeles	1533	49645	36643	13002	47580	35378	12202	2065	1065	648	352	171	143	29	9
Oakland	332	9588	6713	2875	8767	6231	2536	821	384	277	160	84	59	14	3
Sacramento	170	4857	3446	1411	4510	3279	1231	347	116	150	81	32	22	19	8
San Jose	115	1961	1390	571	1867	1334	533	94	49	35	10	4	3	3	-----
Stockton	101	2630	2099	531	2504	2004	500	126	80	31	15	11	1	3	-----
San Diego	204	3722	2759	963	3551	2631	920	171	71	39	61	27	4	30	-----
Berkeley	73	1500	1132	368	1420	1080	340	80	46	26	8	5	2	1	-----
Alameda	32	1094	1018	76	1063	989	74	31	28	2	1	1	-----	-----	-----
Pasadena	92	1277	898	379	1252	879	373	25	14	6	5	2	-----	3	-----
Miscellaneous towns	533	11859	9729	2130	11389	9426	1963	470	226	152	92	42	15	32	3
Totals	5183	148549	110321	38228	141360	105773	35587	7189	3666	2192	1331	671	400	207	53

SANITATION AND VENTILATION.

TABLE No. 1. Sanitation and Ventilation of Stores and Factories in San Francisco.

Industry.	Number of establishments inspected.	Sanitation.			Ventilation.		
		Good.	Fair.	Bad.	Good.	Fair.	Bad.
Manufacturing.							
Automobile accessories	8	8	------	------	8	------	------
Awnings, tents, etc.	4	4	------	------	4	------	------
Bags, paper and burlap	6	5	1	------	2	4	------
Bakery products	49	42	7	------	42	7	------
Bar and store fixtures, billiards, etc.	10	9	1	------	10	------	------
Blacksmithing and horseshoeing	5	5	------	------	5	------	------
Boilers, engines and tanks	10	10	------	------	10	------	------
Boots and shoes	3	3	------	------	3	------	------
Boxes, paper	11	11	------	------	11	------	------
Boxes, wood	6	4	2	------	6	------	------
Brick, tile, pottery, etc.	1	------	1	------	------	1	------
Cans, tin	4	4	------	------	4	------	------
Carriages and wagons	9	9	------	------	9	------	------
Carpets and rugs	4	4	------	------	4	------	------
Cigars and cigarettes	9	5	4	------	5	4	------
Clothing	57	57	------	------	57	------	------
Coffee, spices, etc.	4	4	------	------	4	------	------
Coffins	1	1	------	------	1	------	------
Confectionery	28	24	4	------	26	2	------
Construction work, general contracting, etc.	14	14	------	------	14	------	------
Cooperage	9	8	1	------	9	------	------
Copper and brass goods	9	8	1	------	7	2	------
Dairy products, butter, etc.	3	3	------	------	3	------	------
Drugs and chemicals	16	15	------	1	15	------	1
Dyeing and cleaning	6	6	------	------	6	------	------
Electrical goods and supplies	20	20	------	------	19	1	------
Elevators	3	3	------	------	3	------	------
Envelopes	2	2	------	------	2	------	------
Extracts, perfumes, etc.	3	3	------	------	3	------	------
Fertilizers	2	1	1	------	1	1	------
Fixtures, gas and electric	14	12	2	------	12	1	1
Flouring mill products	11	11	------	------	11	------	------
Foundries	18	18	------	------	18	------	------
Furniture	13	13	------	------	13	------	------
Garages and repair shops	21	21	------	------	21	------	------
Glass and glassware	14	12	2	------	13	1	------
Gloves	6	6	------	------	6	------	------
Harness and saddlery	3	3	------	------	3	------	------
Hats, caps and furnishings	17	16	1	------	16	1	------
Ice	3	3	------	------	3	------	------
Ink	4	4	------	------	4	------	------
Iron, structural and architectural	22	22	------	------	22	------	------
Jewelry, watches, silversmiths, etc.	11	10	1	------	10	1	------
Laundries, hand	33	33	------	------	33	------	------
Laundries, steam	27	19	6	2	26	1	------
Leather, leather goods, etc.	15	12	2	1	12	3	------
Liquors, malt	21	20	1	------	20	1	------
Lithographing	8	8	------	------	8	------	------
Lumber and milling	37	37	------	------	37	------	------
Machinery and machine shop products	52	52	------	------	52	------	------
Mattresses, pillows, bedding, etc.	9	8	1	------	8	1	------
Millinery	3	3	------	------	3	------	------
Mouldings and frames, picture	4	4	------	------	4	------	------
Newspapers	6	5	1	------	4	2	------
Optical goods	7	7	------	------	7	------	------
Oils and grease	2	2	------	------	2	------	------
Paints, varnishes, etc.	6	6	------	------	6	------	------
Pastes, macaroni, etc.	6	5	1	------	5	1	------
Patterns and models	7	6	1	------	7	------	------
Pennants and sporting goods	6	6	------	------	6	------	------

TABLE No. 1. San Francisco—Continued.

Industry.	Number of establishments inspected.	Sanitation.			Ventilation.		
		Good.	Fair.	Bad.	Good.	Fair.	Bad.
Manufacturing—Continued.							
Photographs and photo-engraving	11	11	------	------	11	------	------
Pickles, preserves, sauces, etc.	12	7	5	------	9	3	------
Plating	5	5	------	------	4	1	------
Plumbing, steam and gas fitting, etc.	3	3	------	------	2	1	------
Printing and bookbinding	114	109	5	------	107	7	------
Restaurants	52	49	3	------	51	1	------
Roofing	1	1	------	------	1	------	------
Rubber goods	5	5	------	------	5	------	------
Safes and vaults	1	1	------	------	1	------	------
Shipwrights, caulkers, etc.	4	3	1	------	4	------	------
Slaughtering and meat packing	16	13	3	------	14	2	------
Smelting	2	2	------	------	2	------	------
Soap, tallow, glue, etc.	6	5	1	------	5	1	------
Soda and mineral water	4	3	1	------	4	------	------
Stencils and stamps	2	2	------	------	2	------	------
Stone and marble	7	7	------	------	7	------	------
Stoves and furnaces	5	5	------	------	5	------	------
Sugar, refining	1	1	------	------	1	------	------
Tailors	49	45	4	------	46	3	------
Tinware, sheet metal, etc.	28	28	------	------	28	------	------
Tools and hardware	4	4	------	------	4	------	------
Trunks, valises, etc.	8	7	1	------	6	2	------
Wire and wire products	9	9	------	------	9	------	------
Miscellaneous	35	32	3	------	31	4	------
Totals	1106	1033	69	4	1044	60	2
Wholesale.							
Bicycles, motorcycles and suppplies	4	4	------	------	3	1	------
Boots and shoes	5	5	------	------	5	------	------
Building materials	2	2	------	------	2	------	------
Butchers' supplies	3	3	------	------	3	------	------
Cigars and tobaccos	9	9	------	------	9	------	------
Clothing and furnishings	32	30	2	------	32	------	------
Commission merchants	32	30	1	1	31	1	------
Drugs and chemicals	10	10	------	------	10	------	------
Dry goods	6	6	------	------	6	------	------
Fish, oysters, etc.	7	5	2	------	5	2	------
Furniture, carpets, etc.	10	10	------	------	10	------	------
Gas and electric goods	11	11	------	------	11	------	------
Glass	2	2	------	------	2	------	------
Groceries, coffees, spices, etc.	41	41	------	------	41	------	------
Hardware	20	20	------	------	20	------	------
Household goods	5	4	1	------	4	1	------
Importers	6	5	1	------	5	1	------
Iron, steel, wire, etc.	5	5	------	------	5	------	------
Jewelry	4	4	------	------	4	------	------
Junk	7	5	2	------	5	2	------
Leather	6	6	------	------	6	------	------
Liquors	39	39	------	------	39	------	------
Machinery and implements	17	17	------	------	17	------	------
Manufacturers' agents	43	43	------	------	43	------	------
Meats	5	5	------	------	5	------	------
Millinery	10	10	------	------	10	------	------
Notions, fancy goods, curios, etc.	11	11	------	------	11	------	------
Paints, oils, wall paper, etc.	5	4	1	------	4	1	------
Paper	8	8	------	------	8	------	------
Patterns, dress	5	5	------	------	5	------	------
Plumbing supplies	12	12	------	------	12	------	------
Rubber goods	7	7	------	------	7	------	------
Safes, scales, etc.	7	7	------	------	7	------	------
Stationery, books, and drawing instruments	10	10	------	------	10	------	------
Miscellaneous	14	14	------	------	14	------	------
Totals	420	409	10	1	411	9	------

TABLE No. 1. San Francisco—Continued.

Industry.	Number of establishments inspected.	Sanitation.			Ventilation.		
		Good.	Fair.	Bad.	Good.	Fair.	Bad.
Retail.							
Automobiles and supplies	41	41			41		
Boots and shoes	9	9			9		
Butcher shops and markets	28	28			28		
Clothing and furnishings	59	58	1		59		
Confectionery	5	5			5		
Department stores	11	11			11		
Drug stores	61	61			61		
Dry goods	7	6	1		6	1	
Florists and nurseries	4	4			4		
Furniture	20	20			20		
Groceries	5	5			5		
Hardware	10	10			10		
Household goods, crockery, glassware, etc.	2	2			2		
Jewelry	7	6	1		7		
Millinery	31	29	2		30	1	
Music, musical instruments, etc.	12	12			12		
Stationery, books, etc.	8	8			8		
Miscellaneous	10	10			10		
Totals	330	325	5		328	2	
Miscellaneous.							
Feed and fuel	6	6			6		
Insurance offices	14	14			14		
Lumber and shipping	14	14			14		
Milk depots	3	2	1		3		
Offices	10	10			10		
Teaming, livery, and storage	48	47	1		48		
General	8	8			8		
Totals	103	101	2		103		
Recapitulation.							
Manufacturing	1106	1033	69	4	1044	60	2
Wholesale	420	409	10	1	411	9	
Retail	330	325	5		328	2	
Miscellaneous	103	101	2		103		
Grand totals	1959	1868	86	5	1886	71	2

TABLE No. 2. Sanitation and Ventilation of Stores and Factories in Los Angeles.

Industry.	Number of establishments inspected.	Sanitation.			Ventilation.		
		Good.	Fair.	Bad.	Good.	Fair.	Bad.
Manufacturing.							
Automobiles and accessories	10	10	------	------	10	------	------
Awnings, tents, etc.	3	3	------	------	3	------	------
Bakery products	18	17	1	------	18	------	------
Bar and store fixtures	2	2	------	------	2	------	------
Blacksmithing and horseshoeing	1	1	------	------	1	------	------
Boilers, engines and tanks	9	9	------	------	9	------	------
Boxes, paper	3	3	------	------	3	------	------
Boxes, wood	5	5	------	------	5	------	------
Brick, tile and pottery	10	10	------	------	10	------	------
Building materials, cement, etc.	7	7	------	------	7	------	------
Carriages and wagons	5	5	------	------	5	------	------
Cigars and cigarettes	5	5	------	------	5	------	------
Cleaning and dyeing	6	6	------	------	6	------	------
Clothing, garments, etc.	31	31	------	------	31	------	------
Coffins	2	2	------	------	2	------	------
Confectionery	13	13	------	------	13	------	------
Construction work, general contracting, etc.	26	26	------	------	26	------	------
Copper and brass goods	6	6	------	------	6	------	------
Dairy products	4	4	------	------	4	------	------
Drugs and chemicals	7	7	------	------	7	------	------
Electrical goods and supplies	15	15	------	------	15	------	------
Elevators	1	1	------	------	1	------	------
Fertilizers	2	2	------	------	2	------	------
Fixtures, gas and electric	6	6	------	------	6	------	------
Flouring mill products	7	7	------	------	7	------	------
Foundries	5	5	------	------	5	------	------
Furniture	11	11	------	------	11	------	------
Garages and repair shops	10	10	------	------	10	------	------
Glass and glassware	5	5	------	------	5	------	------
Gloves	1	1	------	------	1	------	------
Harness and saddlery	3	3	------	------	3	------	------
Hats, caps, and furnishings	6	6	------	------	6	------	------
Ice	4	4	------	------	4	------	------
Incubators	2	2	------	------	2	------	------
Iron, structural and architectural	5	5	------	------	5	------	------
Jewelry	8	8	------	------	8	------	------
Laundries, hand	3	3	------	------	3	------	------
Laundries, steam	24	24	------	------	24	------	------
Leather and leather goods	6	6	------	------	6	------	------
Liquors, malt	6	6	------	------	6	------	------
Lithographing	4	4	------	------	4	------	------
Lumber and milling	12	12	------	------	12	------	------
Machinery and machine shop products	41	41	------	------	41	------	------
Mattresses, pillows, and bedding	4	4	------	------	4	------	------
Millinery	1	1	------	------	1	------	------
Mouldings, picture	2	2	------	------	2	------	------
Newspapers	9	9	------	------	9	------	------
Oil, producing and refining	10	10	------	------	10	------	------
Paints, varnishes, etc.	6	6	------	------	6	------	------
Pastes, macaroni, etc.	1	1	------	------	1	------	------
Patterns and models	5	5	------	------	5	------	------
Pennants and sporting goods	4	4	------	------	4	------	------
Photographs	5	5	------	------	5	------	------
Pickles, preserves, sauces, etc.	4	4	------	------	4	------	------
Plating	2	2	------	------	2	------	------
Plumbing, steam and gas fitting, etc.	9	9	------	------	9	------	------
Printing and bookbinding	65	65	------	------	65	------	------
Restaurants	157	157	------	------	157	------	------
Rubber goods	2	2	------	------	2	------	------
Safes and vaults	1	1	------	------	1	------	------
Slaughtering and meat packing	5	5	------	------	5	------	------
Soap, tallow and glue	1	1	------	------	1	------	------
Soda and mineral water	1	1	------	------	1	------	------

TABLE No. 2. Los Angeles—Continued.

Industry.	Number of establishments inspected.	Sanitation.			Ventilation.		
		Good.	Fair.	Bad.	Good.	Fair.	Bad.
Manufacturing—Continued.							
Stencils and stamps	4	4			4		
Stone and marble	1	1			1		
Stoves and furnaces	3	3			3		
Tailor shops	93	93			93		
Tinware, sheet metal, etc.	13	13			13		
Tools, hardware, etc.	4	4			4		
Trunks, valises, etc.	8	8			8		
Wire and wire products	1	1			1		
Miscellaneous	26	26			26		
Totals	807	806	1		807		
Wholesale.							
Boots and shoes	5	5			5		
Building materials	8	8			8		
Butchers' supplies	3	3			3		
Cigars and cigarettes	5	5			5		
Clothing and furnishings	8	8			8		
Commission merchants	25	25			25		
Drugs and chemicals	9	9			9		
Dry goods	1	1			1		
Furniture	5	5			5		
Gas and electric goods	8	8			8		
Glass	3	3			3		
Groceries	16	16			16		
Hardware	13	13			13		
Importers	1	1			1		
Jewelry	6	6			6		
Leather goods	3	3			3		
Machinery, implements, engines, etc.	25	25			24	1	
Manufacturers' agencies	14	14			14		
Meats	2	2			2		
Millinery	6	6			6		
Notions, toys, etc.	4	4			4		
Paints, oils, wall paper, etc.	9	9			9		
Paper	4	4			4		
Plumbing supplies	5	5			5		
Rubber goods	3	3			3		
Seeds	2	2			2		
Stationery	4	4			4		
Miscellaneous	14	14			14		
Totals	211	211			210	1	
Retail.							
Automobiles and accessories	9	9			9		
Bicycles, motorcycles, etc.	5	5			5		
Boots and shoes	17	17			17		
Butcher shops	11	10		1	10		1
Clothing and furnishings	36	36			36		
Confectionery	14	14			14		
Department stores	5	5			5		
Dry goods	12	12			12		
Drug stores	169	169			169		
Florists and nurseries	4	4			4		
Furniture	21	21			21		
Fixtures, gas and electric	7	7			7		
Groceries	17	17			17		
Hardware	17	17			17		
Household goods, crockery, etc.	2	2			2		
Jewelry	16	16			16		
Leather goods	1	1			1		
Millinery	24	24			24		
Music, musical instruments, etc.	11	11			11		
Paints, glass, wall paper, etc.	6	6			6		

TABLE No. 2. Los Angeles—Continued.

Industry.	Number of establishments inspected.	Sanitation.			Ventilation.		
		Good.	Fair.	Bad.	Good.	Fair.	Bad.
Retail—Continued.							
Stationery	11	11	------	------	11	------	------
Miscellaneous	22	22	------	------	22	------	------
Totals	437	436	------	1	436	------	1
Miscellaneous.							
Feed and fuel	8	8	------	------	8	------	------
Lumber and shipping	8	8	------	------	8	------	------
Offices	13	13	------	------	13	------	------
Teaming, livery, and storage	25	25	------	------	25	------	------
General	17	17	------	------	17	------	------
Totals	71	71	------	------	71	------	------
Recapitulation.							
Manufacturing	807	806	1	------	807	------	------
Wholesale	211	211	------	------	210	1	------
Retail	437	436	------	1	436	------	1
Miscellaneous	71	71	------	------	71	------	------
Grand totals	1526	1524	1	1	1524	1	1

TABLE No. 3. Sanitation and Ventilation of Stores and Factories in Oakland.

Industry.	Number of establishments inspected.	Sanitation.			Ventilation.		
		Good.	Fair.	Bad.	Good.	Fair.	Bad.
Manufacturing.							
Awnings, tents, etc.	3	3	------	------	3	------	------
Bakery products	11	7	4	------	8	3	------
Bar and store fixtures, billiards, etc.	1	1	------	------	1	------	------
Boilers, engines and tanks	5	5	------	------	5	------	------
Boots and shoes	1	1	------	------	1	------	------
Boxes, paper	1	1	------	------	1	------	------
Boxes, wood	2	2	------	------	2	------	------
Brick, tile, pottery, etc.	1	1	------	------	1	------	------
Butter and dairy products	4	4	------	------	4	------	------
Carriages and wagons	1	1	------	------	1	------	------
Cigars and cigarettes	3	3	------	------	3	------	------
Clothing	5	5	------	------	5	------	------
Coffee, spices, etc.	1	1	------	------	1	------	------
Confectionery	3	3	------	------	3	------	------
Copper and brass goods	2	2	------	------	2	------	------
Drugs and chemicals	2	2	------	------	2	------	------
Dyeing and cleaning	4	4	------	------	4	------	------
Electrical goods and supplies	3	3	------	------	3	------	------
Fixtures, gas and electric	3	3	------	------	3	------	------
Flouring mill products	3	3	------	------	3	------	------
Foundries	9	9	------	------	9	------	------
Furniture	4	4	------	------	4	------	------
Garages and repair shops	4	4	------	------	4	------	------
Glass and glassware	2	2	------	------	2	------	------
Gloves	4	4	------	------	4	------	------
Harness and saddlery	1	1	------	------	1	------	------
Ice	1	1	------	------	1	------	------
Jewelry, watches, silversmiths, etc.	2	2	------	------	2	------	------
Laundries, hand	3	2	1	------	2	1	------
Laundries, steam	10	8	2	------	8	2	------
Leather and leather goods	1	1	------	------	1	------	------
Liquors, malt	6	6	------	------	6	------	------
Lithographing	1	1	------	------	1	------	------
Lumber and milling	19	19	------	------	19	------	------
Machinery and machine shop products	9	9	------	------	9	------	------
Mattresses, pillows, and bedding	4	4	------	------	4	------	------
Mouldings and frames, picture	1	1	------	------	1	------	------
Oils and grease	1	1	------	------	1	------	------
Paints, varnishes, etc.	4	4	------	------	3	1	------
Pastes, macaroni, etc.	1	1	------	------	1	------	------
Patterns and models	2	2	------	------	2	------	------
Photographs and photo-engraving	1	1	------	------	1	------	------
Pickles, preserves, sauces, etc.	3	3	------	------	3	------	------
Plating	3	2	1	------	2	1	------
Printing, binding, newspapers, etc.	14	14	------	------	14	------	------
Restaurants	7	7	------	------	7	------	------
Rubber goods	1	1	------	------	1	------	------
Safes and vaults	1	1	------	------	1	------	------
Shipwrights, caulking, etc.	2	2	------	------	2	------	------
Slaughtering, meat packing, etc.	6	6	------	------	6	------	------
Soda and mineral water	2	2	------	------	2	------	------
Terra cotta and stucco work	3	1	2	------	3	------	------
Tinware, sheet metal, etc.	3	3	------	------	3	------	------
Wire and wire products	1	1	------	------	1	------	------
Miscellaneous	7	7	------	------	7	------	------
Totals	202	192	10	------	194	8	------

TABLE No. 3. Oakland—Continued.

Industry.	Number of establishments inspected.	Sanitation.			Ventilation.		
		Good.	Fair.	Bad.	Good.	Fair.	Bad.
Wholesale.							
Building materials	2	2	------	------	2	------	------
Clothing	1	1	------	------	1	------	------
Furniture	1	1	------	------	1	------	------
Groceries	1	1	------	------	1	------	------
Hardware	2	2	------	------	2	------	------
Manufacturers' agents	5	5	------	------	5	------	------
Plumbing supplies	2	2	------	------	2	------	------
Miscellaneous	6	6	------	------	6	------	------
Totals	20	20	------	------	20	------	------
Retail.							
Automobile accessories	6	5	1	------	5	1	------
Boots and shoes	2	2	------	------	2	------	------
Butcher shops	3	3	------	------	3	------	------
Clothing	12	12	------	------	12	------	------
Confectionery	5	2	3	------	3	2	------
Department stores	3	3	------	------	3	------	------
Drug stores	31	30	1	------	31	------	------
Dry goods	4	4	------	------	4	------	------
Furniture	6	6	------	------	6	------	------
Groceries	4	4	------	------	4	------	------
Hardware	1	------	1	------	1	------	------
Household goods, crockery, glassware, etc.	4	3	1	------	3	1	------
Jewelry	1	1	------	------	1	------	------
Millinery	3	3	------	------	3	------	------
Music and musical instruments	3	3	------	------	3	------	------
Stationery, books, etc.	1	1	------	------	1	------	------
Miscellaneous	1	1	------	------	1	------	------
Totals	90	83	7	------	86	4	------
Miscellaneous.							
Feed and fuel	3	3	------	------	3	------	------
Lumber and shipping	1	1	------	------	1	------	------
Milk depots	3	3	------	------	3	------	------
Teaming, livery, and storage	6	6	------	------	6	------	------
General	1	1	------	------	1	------	------
Totals	14	14	------	------	14	------	------
Recapitulation.							
Manufacturing	202	192	10	------	194	8	------
Wholesale	20	20	------	------	20	------	------
Retail	90	83	7	------	86	4	------
Miscellaneous	14	14	------	------	14	------	------
Grand totals	326	309	17	------	314	12	------

TABLE No. 4. Sanitation and Ventilation of Stores and Factories in Sacramento.

Industry.	Number of establishments inspected.	Sanitation.			Ventilation.		
		Good.	Fair.	Bad.	Good.	Fair.	Bad.
Manufacturing.							
Bakery products	9	7	2	------	7	2	------
Confectionery	2	2	------	------	2	------	------
Carriages and wagons	3	3	------	------	3	------	------
Cigars and cigarettes	3	3	------	------	3	------	------
Clothing	5	5	------	------	5	------	------
Extracts, spices, etc.	2	2	------	------	2	------	------
Electrical goods and supplies	4	4	------	------	4	------	------
Flouring mill products	1	1	------	------	1	------	------
Harness and saddlery	3	3	------	------	3	------	------
Ice	1	1	------	------	1	------	------
Laundries, hand	4	4	------	------	4	------	------
Laundries, steam	4	4	------	------	4	------	------
Liquors, malt	2	2	------	------	2	------	------
Lumber and milling	4	4	------	------	4	------	------
Machinery and foundries	6	6	------	------	6	------	------
Newspapers	3	3	------	------	3	------	------
Photographs	2	2	------	------	2	------	------
Printing and bookbinding	10	10	------	------	10	------	------
Restaurants	6	6	------	------	6	------	------
Slaughtering and meat packing	1	------	1	------	------	1	------
Tinware, sheet metal, etc.	2	2	------	------	2	------	------
Wineries	2	2	------	------	2	------	------
Miscellaneous	6	6	------	------	6	------	------
Totals	85	82	3	------	82	3	------
Wholesale.							
Commission merchants	6	5	1	------	5	1	------
Drugs	2	2	------	------	2	------	------
Groceries	4	4	------	------	4	------	------
Hardware	2	2	------	------	2	------	------
Plumbing	2	2	------	------	2	------	------
Miscellaneous	5	5	------	------	5	------	------
Totals	21	20	1	------	20	1	------
Retail.							
Butcher shops	6	6	------	------	6	------	------
Clothing	6	6	------	------	6	------	------
Confectionery	4	4	------	------	4	------	------
Department stores	5	5	------	------	5	------	------
Drug stores	15	15	------	------	15	------	------
Furniture	3	3	------	------	3	------	------
General merchandise	1	1	------	------	1	------	------
Groceries	2	2	------	------	2	------	------
Hardware	2	2	------	------	2	------	------
Jewelry	2	2	------	------	2	------	------
Millinery	2	2	------	------	2	------	------
Stationery	2	2	------	------	2	------	------
Miscellaneous	3	3	------	------	3	------	------
Totals	53	53	------	------	53	------	------
Miscellaneous.							
Lumber and shipping	2	2	------	------	2	------	------
Offices	3	3	------	------	3	------	------
Teaming, livery and storage	4	4	------	------	4	------	------
Totals	9	9	------	------	9	------	------
Recapitulation.							
Manufacturing	85	82	3	------	82	3	------
Wholesale	21	20	1	------	20	1	------
Retail	53	53	------	------	53	------	------
Miscellaneous	9	9	------	------	9	------	------
Grand totals	168	164	4	------	164	4	------

TABLE No. 5. Sanitation and Ventilation of Stores and Factories in San José.

Industry.	Number of establishments inspected.	Sanitation.			Ventilation.		
		Good.	Fair.	Bad.	Good.	Fair.	Bad.
Manufacturing.							
Bakery products	4	4	------	------	4	------	------
Bricks, pottery, etc.	2	2	------	------	2	------	------
Dairy products	2	2	------	------	2	------	------
Dyeing and cleaning	3	3	------	------	3	------	------
Garages and repair shops	3	3	------	------	3	------	------
Laundries	5	5	------	------	5	------	------
Liquors, malt	2	2	------	------	2	------	------
Lumber and milling	3	3	------	------	3	------	------
Machinery	2	2	------	------	2	------	------
Printing and newspapers	3	3	------	------	3	------	------
Restaurants	3	3	------	------	3	------	------
Wooden boxes and baskets	3	3	------	------	3	------	------
Miscellaneous	7	7	------	------	7	------	------
Totals	42	42	------	------	42	------	------
Wholesale.							
Groceries	2	2	------	------	2	------	------
Machinery, implements, etc.	2	2	------	------	2	------	------
Miscellaneous	4	4	------	------	4	------	------
Totals	8	8	------	------	8	------	------
Retail.							
Butcher shops	2	2	------	------	2	------	------
Confectionery	3	3	------	------	3	------	------
Clothing	10	10	------	------	10	------	------
Department stores	2	2	------	------	2	------	------
Drug stores	16	16	------	------	16	------	------
Dry goods	5	5	------	------	5	------	------
Furniture	4	4	------	------	4	------	------
Groceries	4	4	------	------	4	------	------
Paints, oils, etc.	2	2	------	------	2	------	------
Miscellaneous	9	8	1	------	9	------	------
Totals	57	56	1	------	57	------	------
Miscellaneous.							
Feed and fuel	5	5	------	------	5	------	------
Teaming, livery and storage	3	3	------	------	3	------	------
Totals	8	8	------	------	8	------	------
Recapitulation.							
Manufacturing	42	42	------	------	42	------	------
Wholesale	8	8	------	------	8	------	------
Retail	57	56	1	------	57	------	------
Miscellaneous	8	8	------	------	8	------	------
Grand totals	115	114	1	------	115	------	------

TABLE No. 6. Sanitation and Ventilation of Stores and Factories in Stockton.

Industry.	Number of establishments inspected.	Sanitation.			Ventilation.		
		Good.	Fair.	Bad.	Good.	Fair.	Bad.
Manufacturing.							
Bakery products	1	1	------	------	1	------	------
Clothing	2	2	------	------	2	------	------
Engines and pumps	3	3	------	------	3	------	------
Flouring mill products	3	3	------	------	3	------	------
Foundries and structural iron	3	3	------	------	3	------	------
Hardware, plumbing, etc.	3	3	------	------	3	------	------
Harness and saddlery	4	4	------	------	4	------	------
Laundries	4	4	------	------	4	------	------
Liquors, malt	2	2	------	------	2	------	------
Lumber and milling	5	5	------	------	5	------	------
Machinery	6	6	------	------	6	------	------
Printing, newspapers, etc.	5	5	------	------	5	------	------
Restaurants	1	1	------	------	1	------	------
Slaughtering and meat packing	3	3	------	------	3	------	------
Miscellaneous	3	3	------	------	3	------	------
Totals	48	48	------	------	48	------	------
Wholesale.							
Miscellaneous	5	5	------	------	5	------	------
Retail.							
Clothing	5	5	------	------	5	------	------
Confectionery	4	4	------	------	4	------	------
Department stores	1	1	------	------	1	------	------
Drug stores	15	15	------	------	15	------	------
Dry goods	5	5	------	------	5	------	------
Furniture	2	2	------	------	2	------	------
Groceries	2	2	------	------	2	------	------
Hardware	1	1	------	------	1	------	------
Household goods	2	2	------	------	2	------	------
Millinery	3	3	------	------	3	------	------
Miscellaneous	4	4	------	------	4	------	------
Totals	44	44	------	------	44	------	------
Miscellaneous	3	3	------	------	3	------	------
Recapitulation.							
Manufacturing	48	48	------	------	48	------	------
Wholesale	5	5	------	------	5	------	------
Retail	44	44	------	------	44	------	------
Miscellaneous	3	3	------	------	3	------	------
Grand totals	100	100	------	------	100	------	------

TABLE No. 7. Sanitation and Ventilation of Stores and Factories in San Diego.

Industry.	Number of establishments inspected.	Sanitation.			Ventilation.		
		Good.	Fair.	Bad.	Good.	Fair.	Bad.
Manufacturing.							
Automobile accessories	1	------	1	------	1	------	------
Awnings, tents, etc.	1	1	------	------	1	------	------
Bakery products	7	5	2	------	6	1	------
Cigars, cigarettes, etc.	1	1	------	------	1	------	------
Clothing	2	2	------	------	1	1	------
Confectionery	8	8	------	------	8	------	------
Dyeing and cleaning	1	1	------	------	1	------	------
Electrical goods and supplies	4	3	------	1	3	------	1
Engines and tanks	1	1	------	------	1	------	------
Flouring mill products	2	2	------	------	2	------	------
Foundries	2	2	------	------	2	------	------
Ice	1	1	------	------	1	------	------
Jewelry	3	3	------	------	3	------	------
Laundries	6	5	1	------	6	------	------
Liquors, malt	1	1	------	------	1	------	------
Lumber and milling	3	3	------	------	3	------	------
Mattresses, beds, etc.	2	2	------	------	2	------	------
Plating	2	1	------	1	2	------	------
Plumbing, gas fitting, etc.	3	3	------	------	3	------	------
Printing and newspapers	10	10	------	------	10	------	------
Restaurants	21	13	7	1	20	1	------
Slaughtering and meat packing	3	3	------	------	3	------	------
Stoves and furnaces	1	1	------	------	1	------	------
Tinware and sheet metal	3	3	------	------	3	------	------
Miscellaneous	7	7	------	------	7	------	------
Totals	96	82	11	3	92	3	1
Wholesale.							
Commission merchants	4	2	2	------	4	------	------
Drugs	1	1	------	------	1	------	------
Groceries	7	5	2	------	6	1	------
Hardware	4	3	1	------	3	1	------
Miscellaneous	8	7	1	------	8	------	------
Totals	24	18	6	------	22	2	------
Retail.							
Automobile supplies	4	4	------	------	4	------	------
Clothing	13	13	------	------	13	------	------
Department stores	5	5	------	------	5	------	------
Drug stores	13	13	------	------	13	------	------
Dry goods	4	3	1	------	3	1	------
Furniture	5	5	------	------	5	------	------
Groceries	3	3	------	------	3	------	------
Hardware	1	------	1	------	1	------	------
Millinery	9	7	2	------	7	2	------
Music, musical instruments, etc.	4	4	------	------	4	------	------
Stationery	4	4	------	------	4	------	------
Miscellaneous	6	5	1	------	6	------	------
Totals	71	66	5	------	68	3	------
Miscellaneous.							
Feed and fuel	1	1	------	------	1	------	------
Lumber and shipping	2	2	------	------	2	------	------
Teaming, livery and storage	5	2	1	2	3	2	------
General	4	4	------	------	4	------	------
Totals	12	9	1	2	10	2	------
Recapitulation.							
Manufacturing	96	82	11	3	92	3	1
Wholesale	24	18	6	------	22	2	------
Retail	71	66	5	------	68	3	------
Miscellaneous	12	9	1	2	10	2	------
Grand totals	203	175	23	5	192	10	1

TABLE No. 8. Sanitation and Ventilation of Stores and Factories in Berkeley.

Industry.	Number of establishments inspected.	Sanitation.			Ventilation.		
		Good.	Fair.	Bad.	Good.	Fair.	Bad.
Manufacturing.							
Bakery products	5	5	------	------	5	------	------
Beds, spring	1	1	------	------	1	------	------
Confectionery	1	1	------	------	1	------	------
Clothing	2	2	------	------	2	------	------
Culverts	1	1	------	------	1	------	------
Dairy products	3	3	------	------	3	------	------
Drugs and chemicals	3	3	------	------	3	------	------
Dyeing and cleaning	1	1	------	------	1	------	------
Electrical goods and supplies	1	1	------	------	1	------	------
Elevators	1	1	------	------	1	------	------
Engines	1	1	------	------	1	------	------
Fertilizers	1	1	------	------	1	------	------
Foundry and machine-shop products	1	1	------	------	1	------	------
Ink	2	2	------	------	2	------	------
Laundries, hand	2	2	------	------	2	------	------
Laundries, steam	2	2	------	------	2	------	------
Leather and leather goods	1	1	------	------	1	------	------
Liquors, malt	1	1	------	------	1	------	------
Lumber and milling	4	4	------	------	4	------	------
Oils, cocanut	1	1	------	------	1	------	------
Oils, mineral	1	1	------	------	1	------	------
Plumbing	1	1	------	------	1	------	------
Printing and newspapers	6	6	------	------	6	------	------
Soap, tallow, etc.	1	1	------	------	1	------	------
Miscellaneous	2	2	------	------	2	------	------
Totals	46	46	------	------	46	------	------
Retail.							
Clothing	2	2	------	------	2	------	------
Confectionery	2	2	------	------	2	------	------
Department stores	1	1	------	------	1	------	------
Drug stores	10	10	------	------	10	------	------
Dry goods	3	3	------	------	3	------	------
Furniture	1	1	------	------	1	------	------
Groceries, markets, etc.	6	6	------	------	6	------	------
Totals	25	25	------	------	25	------	------
Miscellaneous.							
Teaming, livery, and storage	2	2	------	------	2	------	------
Recapitulation.							
Manufacturing	46	46	------	------	46	------	------
Retail	25	25	------	------	25	------	------
Miscellaneous	2	2	------	------	2	------	------
Grand totals	73	73	------	------	73	------	------

TABLE No. 9. Sanitation and Ventilation of Stores and Factories in Alameda.

Industry.	Number of establishments inspected.	Sanitation.			Ventilation.		
		Good.	Fair.	Bad.	Good.	Fair.	Bad.
Manufacturing.							
Bakery products	1	1	------	------	1	------	------
Borax	1	1	------	------	1	------	------
Bricks	1	1	------	------	1	------	------
Laundries	3	3	------	------	3	------	------
Liquors, malt	1	1	------	------	1	------	------
Lumber and milling	2	2	------	------	2	------	------
Machinery	3	2	1	------	3	------	------
Matches	1	------	1	------	------	1	------
Paints, oils, etc.	1	1	------	------	1	------	------
Printing, newspapers, etc.	2	2	------	------	2	------	------
Rugs and carpets	1	1	------	------	1	------	------
Totals	17	15	2	------	16	1	------
Retail.							
Butcher shops	1	1	------	------	1	------	------
Confectionery	2	2	------	------	2	------	------
Drug stores	8	8	------	------	8	------	------
Dry goods	2	2	------	------	2	------	------
Totals	13	13	------	------	13	------	------
Miscellaneous.							
Milk depots	2	2	------	------	2	------	------
Recapitulation.							
Manufacturing	17	15	2	------	16	1	------
Retail	13	13	------	------	13	------	------
Miscellaneous	2	2	------	------	2	------	------
Grand totals	32	30	2	------	31	1	------

TABLE No. 10. Sanitation and Ventilation of Stores and Factories in Pasadena.

Industry.	Number of establishments inspected.	Sanitation.			Ventilation.		
		Good.	Fair.	Bad.	Good.	Fair.	Bad.
Manufacturing.							
Awnings, tents, etc.	1	------	------	1	1	------	------
Bakery products	5	5	------	------	5	------	------
Clothing	4	4	------	------	4	------	------
Contracting, electrical	1	1	------	------	1	------	------
Fixtures, gas and electric	2	2	------	------	2	------	------
Flouring mill products	1	1	------	------	1	------	------
Foundries	1	1	------	------	1	------	------
Garages and repair shops	3	3	------	------	3	------	------
Interior decorating	2	2	------	------	2	------	------
Laundries	4	4	------	------	4	------	------
Leather goods	2	2	------	------	2	------	------
Lumber and milling	2	2	------	------	2	------	------
Machinery and machine-shop products	2	2	------	------	2	------	------
Plumbing	2	2	------	------	2	------	------
Printing, newspapers, etc.	5	5	------	------	5	------	------
Restaurants	7	7	------	------	7	------	------
Tinware, sheet metal, etc.	1	1	------	------	1	------	------
Miscellaneous	3	3	------	------	3	------	------
Totals	48	47	------	1	48	------	------
Retail.							
Boots and shoes	2	2	------	------	2	------	------
Butcher shops	2	2	------	------	2	------	------
Clothing	5	5	------	------	5	------	------
Confectionery	2	2	------	------	2	------	------
Dry goods	5	5	------	------	5	------	------
Drug stores	7	7	------	------	7	------	------
Furniture	2	2	------	------	2	------	------
Groceries	5	5	------	------	5	------	------
Hardware	1	1	------	------	1	------	------
Jewelry	2	2	------	------	2	------	------
Millinery	2	2	------	------	2	------	------
Ostrich feathers	2	2	------	------	2	------	------
Stationery	2	2	------	------	2	------	------
Miscellaneous	2	2	------	------	2	------	------
Totals	41	41	------	------	41	------	------
Miscellaneous.							
Lumber and shipping	2	2	------	------	2	------	------
Offices	1	1	------	------	1	------	------
Totals	3	3	------	------	3	------	------
Recapitulation.							
Manufacturing	48	47	------	1	48	------	------
Retail	41	41	------	------	41	------	------
Miscellaneous	3	3	------	------	3	------	------
Grand totals	92	91	------	1	92	------	------

TABLE No. 11. Sanitation and Ventilation of Stores and Factories in Miscellaneous Towns of the State, by Towns.

Industry.	Number of establishments inspected.	Sanitation.			Ventilation.		
		Good.	Fair.	Bad.	Good.	Fair.	Bad.
Bay shore cities, Martinez, Pittsburg, Antioch, Selby.							
Manufacturing	17	17	------	------	17	------	------
Retail	3	3	------	------	3	------	------
Totals	20	20	------	------	20	------	------
Benicia.							
Manufacturing	9	9	------	------	9	------	------
Retail	1	1	------	------	1	------	------
Miscellaneous	1	1	------	------	1	------	------
Totals	11	11	------	------	11	------	------
Calexico.							
Manufacturing	2	2	------	------	2	------	------
Retail	2	2	------	------	2	------	------
Totals	4	4	------	------	4	------	------
Chico.							
Manufacturing	15	14	1	------	14	1	------
Retail	15	15	------	------	15	------	------
Miscellaneous	1	1	------	------	1	------	------
Totals	31	30	1	------	30	1	------
El Centro.							
Manufacturing	3	3	------	------	3	------	------
Retail	6	6	------	------	6	------	------
Miscellaneous	2	2	------	------	2	------	------
Totals	11	11	------	------	11	------	------
Fresno.							
Manufacturing	13	11	2	------	13	------	------
Wholesale	1	1	------	------	1	------	------
Retail	14	14	------	------	14	------	------
Miscellaneous	3	3	------	------	3	------	------
Totals	31	29	2	------	31	------	------
Haywards.							
Manufacturing	3	3	------	------	3	------	------
Imperial.							
Manufacturing	5	5	------	------	5	------	------
Retail	2	2	------	------	2	------	------
Totals	7	7	------	------	7	------	------
Lodi.							
Manufacturing	3	3	------	------	3	------	------
Retail	4	4	------	------	4	------	------
Totals	7	7	------	------	7	------	------
Long Beach.							
Manufacturing	4	4	------	------	4	------	------
Retail	8	8	------	------	8	------	------
Miscellaneous	1	1	------	------	1	------	------
Totals	13	13	------	------	13	------	------

TABLE No. 11. Sanitation and Ventilation of Stores and Factories in Miscellaneous Towns of the State, by Towns—Continued.

Industry.	Number of establishments inspected.	Sanitation.			Ventilation.		
		Good.	Fair.	Bad.	Good.	Fair.	Bad.
Marysville.							
Manufacturing	13	13	------	------	13	------	------
Wholesale	2	2	------	------	2	------	------
Retail	14	14	------	------	14	------	------
Miscellaneous	1	1	------	------	1	------	------
Totals	30	30	------	------	30	------	------
Merced.							
Manufacturing	3	2	1	------	3	------	------
Retail	6	6	------	------	6	------	------
Totals	9	8	1	------	9	------	------
Monterey.							
Manufacturing	8	8	------	------	8	------	------
Retail	6	6	------	------	6	------	------
Miscellaneous	2	2	------	------	2	------	------
Totals	16	16	------	------	16	------	------
Napa.							
Manufacturing	18	18	------	------	18	------	------
Retail	9	9	------	------	9	------	------
Totals	27	27	------	------	27	------	------
Oroville.							
Manufacturing	8	8	------	------	8	------	------
Retail	8	8	------	------	8	------	------
Miscellaneous	2	------	2	------	------	2	------
Totals	18	16	2	------	16	2	------
Oxnard.							
Manufacturing	7	7	------	------	7	------	------
Retail	4	4	------	------	4	------	------
Totals	11	11	------	------	11	------	------
Palo Alto.							
Manufacturing	2	2	------	------	2	------	------
Retail	6	6	------	------	6	------	------
Totals	8	8	------	------	8	------	------
Petaluma.							
Manufacturing	17	15	2	------	16	1	------
Retail	10	10	------	------	10	------	------
Miscellaneous	3	3	------	------	3	------	------
Totals	30	28	2	------	29	1	------
Redwood City.							
Manufacturing	10	10	------	------	10	------	------
Retail	4	4	------	------	4	------	------
Miscellaneous	1	1	------	------	1	------	------
Totals	15	15	------	------	15	------	------
Redlands.							
Manufacturing	5	5	------	------	5	------	------
Retail	4	4	------	------	4	------	------
Totals	9	9	------	------	9	------	------

TABLE No. 11. Sanitation and Ventilation of Stores and Factories in Miscellaneous Towns of the State, by Towns—Continued.

Industry.	Number of establishments inspected.	Sanitation.			Ventilation.		
		Good.	Fair.	Bad.	Good.	Fair.	Bad.
Richmond.							
Manufacturing	5	5	------	------	5	------	------
Retail	6	6	------	------	6	------	------
Totals	11	11	------	------	11	------	------
Riverside.							
Manufacturing	6	6	------	------	6	------	------
Retail	6	6	------	------	6	------	------
Miscellaneous	1	1	------	------	1	------	------
Totals	13	13	------	------	13	------	------
San Bernardino.							
Manufacturing	6	6	------	------	6	------	------
Retail	4	4	------	------	4	------	------
Totals	10	10	------	------	10	------	------
San Leandro.							
Manufacturing	3	2	1	------	3	------	------
San Mateo.							
Manufacturing	10	10	------	------	10	------	------
Retail	11	11	------	------	11	------	------
Miscellaneous	2	2	------	------	2	------	------
Totals	23	23	------	------	23	------	------
San Rafael.							
Manufacturing	10	8	2	------	9	1	------
Retail	6	6	------	------	6	------	------
Miscellaneous	1	1	------	------	1	------	------
Totals	17	15	2	------	16	1	------
Santa Barbara.							
Manufacturing	14	13	------	1	14	------	------
Retail	9	9	------	------	9	------	------
Miscellaneous	1	1	------	------	1	------	------
Totals	24	23	------	1	24	------	------
Santa Clara.							
Manufacturing	1	1	------	------	1	------	------
Wholesale	1	1	------	------	1	------	------
Retail	3	3	------	------	3	------	------
Totals	5	5	------	------	5	------	------
Santa Clara County, miscellaneous towns.							
Manufacturing	2	2	------	------	2	------	------
Retail	5	5	------	------	5	------	------
Totals	7	7	------	------	7	------	------
Santa Cruz.							
Manufacturing	6	6	------	------	6	------	------
Retail	12	12	------	------	12	------	------
Totals	18	18	------	------	18	------	------

TABLE No. 11. Sanitation and Ventilation of Stores and Factories in Miscellaneous Towns of the State, by Towns—Continued.

Industry.	Number of establishments inspected.	Sanitation.			Ventilation.		
		Good.	Fair.	Bad.	Good.	Fair.	Bad.
Santa Paula.							
Manufacturing	7	6	------	1	6	------	1
Retail	2	2	------	------	2	------	------
Totals	9	8	------	1	8	------	1
Santa Rosa.							
Manufacturing	10	10	------	------	10	------	------
Retail	1	1	------	------	1	------	------
Miscellaneous	2	2	------	------	2	------	------
Totals	13	13	------	------	13	------	------
Sonoma.							
Manufacturing	3	3	------	------	3	------	------
Retail	2	2	------	------	2	------	------
Miscellaneous	1	1	------	------	1	------	------
Totals	6	6	------	------	6	------	------
Stege.							
Manufacturing	6	5	1	------	5	1	------
Sunnyvale.							
Manufacturing	2	2	------	------	2	------	------
Sutter Creek.							
Manufacturing	2	2	------	------	2	------	------
Vallejo.							
Manufacturing	13	12	1	------	13	------	------
Retail	9	9	------	------	9	------	------
Totals	22	21	1	------	22	------	------
Ventura.							
Manufacturing	6	6	------	------	6	------	------
Retail	7	7	------	------	7	------	------
Totals	13	13	------	------	13	------	------
Watsonville.							
Manufacturing	7	7	------	------	7	------	------
Retail	5	5	------	------	5	------	------
Miscellaneous	1	1	------	------	1	------	------
Totals	13	13	------	------	13	------	------
Yuba City.							
Manufacturing	1	1	------	------	1	------	------

TABLE No. 12. Sanitation and Ventilation of Stores and Factories in Miscellaneous Towns of the State, by Industries.

Industry.	Number of establishments inspected.	Sanitation.			Ventilation.		
		Good.	Fair.	Bad.	Good.	Fair.	Bad.
Manufacturing.							
Bakery products	25	24	1	------	25	------	------
Blacksmithing and horseshoeing	2	2	------	------	2	------	------
Boots and shoes	3	3	------	------	3	------	------
Boxes, paper	1	1	------	------	1	------	------
Boxes, wood	2	2	------	------	2	------	------
Brick and tile	3	3	------	------	3	------	------
Carriages and wagons	2	2	------	------	2	------	------
Clothing	7	7	------	------	7	------	------
Cotton gins	2	2	------	------	2	------	------
Dairy products	9	9	------	------	9	------	------
Drugs and chemicals	7	7	------	------	7	------	------
Dyeing and cleaning	4	4	------	------	4	------	------
Engines, boilers and tanks	2	1	1	------	2	------	------
Explosives	4	4	------	------	4	------	------
Fertilizers	1	------	1	------	------	1	------
Flouring mill products	4	4	------	------	4	------	------
Foundries	4	4	------	------	4	------	------
Garages and repair shops	3	3	------	------	3	------	------
Gloves	3	3	------	------	3	------	------
Ice	4	3	1	------	4	------	------
Laundries	37	34	2	1	37	------	------
Leather and leather goods	12	11	1	------	12	------	------
Liquors, malt	9	9	------	------	9	------	------
Lumber and milling	29	29	------	------	29	------	------
Machinery and machine shop products	9	9	------	------	9	------	------
Matches	2	2	------	------	2	------	------
Packing, fish	2	2	------	------	2	------	------
Paints, varnishes, etc.	1	1	------	------	1	------	------
Paper	1	1	------	------	1	------	------
Pickles, preserves, sauces, etc.	3	2	1	------	3	------	------
Plumbing supplies	3	3	------	------	3	------	------
Printing, binding, newspaper, etc.	44	40	4	------	41	3	------
Restaurants	16	15	1	------	15	1	------
Rubber goods	1	1	------	------	1	------	------
Salt	1	1	------	------	1	------	------
Silk	1	1	------	------	1	------	------
Slaughtering and meat packing	4	3	------	1	3	------	1
Smelting	2	2	------	------	2	------	------
Soda and mineral water	6	6	------	------	6	------	------
Sugar, refining	2	2	------	------	2	------	------
Wineries	4	4	------	------	4	------	------
Miscellaneous	2	2	------	------	2	------	------
Totals	283	268	13	2	277	5	1
Wholesale and Retail.							
Butcher shops, retail	8	8	------	------	8	------	------
Clothing, retail	8	8	------	------	8	------	------
Confectionery, retail	19	19	------	------	19	------	------
Department stores	16	16	------	------	16	------	------
Drug stores, retail	77	77	------	------	77	------	------
Dry goods, retail	39	39	------	------	39	------	------
Furniture, retail	4	4	------	------	4	------	------
Groceries, retail	25	25	------	------	25	------	------
Hardware, retail	8	8	------	------	8	------	------
Iron, metal, etc., wholesale	1	1	------	------	1	------	------
Jewelry, retail	1	1	------	------	1	------	------
Meats, wholesale	1	1	------	------	1	------	------
Millinery, retail	2	2	------	------	2	------	------
Notions	2	2	------	------	2	------	------
Miscellaneous	9	9	------	------	9	------	------
Totals	220	220	------	------	220	------	------

TABLE No. 12. Sanitation and Ventilation of Stores and Factories in Miscellaneous Towns of the State, by industries—Continued.

Industry.	Number of establishments inspected.	Sanitation.			Ventilation.		
		Good.	Fair.	Bad.	Good.	Fair.	Bad.
Miscellaneous.							
Feed and fuel	2	2	------	------	2	------	------
Lumber yards	7	7	------	------	7	------	------
Milk depots	2	2	------	------	2	------	------
Teaming, livery and storage	15	13	2	------	13	2	------
Totals	26	24	2	------	24	2	------
Recapitulation.							
Manufacturing	283	268	13	2	277	5	1
Wholesale and retail	220	220	------	------	220	------	------
Miscellaneous	26	24	2	------	24	2	------
Grand totals	529	512	15	2	521	7	1

TABLE No. 13. Sanitation and Ventilation of Stores and Factories summarized for the State.

City.	Number of establishments inspected.	Sanitation.			Ventilation.		
		Good.	Fair.	Bad.	Good.	Fair.	Bad.
San Francisco	1959	1868	86	5	1886	71	2
Los Angeles	1526	1524	1	1	1524	1	1
Oakland	326	309	17	------	314	12	------
Sacramento	168	164	4	------	164	4	------
San Jose	115	114	1	------	115	------	------
Stockton	100	100	------	------	100	------	------
San Diego	203	175	23	5	192	10	1
Berkeley	73	73	------	------	73	------	------
Alameda	32	30	2	------	31	1	------
Pasadena	92	91	------	1	92	------	------
Miscellaneous towns	529	512	15	2	521	7	1
Totals	5123	4960	149	14	5012	106	5

CHILD LABOR.

TABLE No. 1. Age and Schooling Certificates issued

(Showing sex, age, and literacy

County.	Total certificates issued	Total.					
		Male.			Female.		
		Total	14 years	15 years	Total	14 years	15 years
Alameda	438	293	184	109	145	80	65
Alpine	None issued.						
Amador	None issued.						
Butte	No returns.						
Calaveras	None issued.						
Colusa	None issued.						
Contra Costa	1	1	------	1	------	------	------
Del Norte	None issued.						
El Dorado	None issued.						
Fresno	50	28	17	11	22	10	12
Glenn	None issued.						
Humboldt	None issued.						
Imperial	None issued.						
Inyo	None issued.						
Kern	None issued.						
Kings	None issued.						
Lake	None issued.						
Lassen	None issued.						
Los Angeles	468	330	216	114	138	79	59
Madera	None issued.						
Marin	None issued.						
Mariposa	None issued.						
Mendocino	None issued.						
Merced	None issued.						
Modoc	None issued.						
Mono	None issued.						
Monterey	1	1	------	1	------	------	------
Napa	18	12	5	7	6	3	3
Nevada	None issued.						
Orange	None issued.						
Placer	None issued.						
Plumas	None issued.						
Riverside	None issued.						
Sacramento	120	52	27	25	68	29	39
San Benito	None issued.						
San Bernardino	1	1	1	------	------	------	------
San Diego	26	23	13	10	3	2	1
San Francisco	626	416	271	145	210	126	84
San Joaquin	14	10	3	7	4	------	4
San Luis Obispo	None issued.						
San Mateo	None issued.						
Santa Barbara	None issued.						
Santa Clara	39	27	9	18	12	2	10
Santa Cruz	None issued.						
Shasta	None issued.						
Sierra	None issued.						
Siskiyou	6	6	2	4	------	------	------
Solano	15	15	11	4	------	------	------
Sonoma	7	5	4	1	2	------	2
Stanislaus	None issued.						
Sutter	None issued.						
Tehama	1	1	1	------	------	------	------
Trinity	None issued.						
Tulare	None issued.						
Tuolumne	No returns.						
Ventura	None issued.						
Yolo	None issued.						
Yuba	None issued.						
Totals	1831	1221	764	457	610	331	279

in State of California, fiscal year ending June 30, 1911.
of applicants, by counties.)

Total	Literate.						Total	Illiterate.					
	Male.			Female.				Male.			Female.		
	Total	14 years	15 years	Total	14 years	15 years		Total	14 years	15 years	Total	14 years	15 years
391	259	164	95	132	71	61	47	34	20	14	13	9	4
1	1	------	1	------	------	------	------	------	------	------	------	------	------
50	28	17	11	22	10	12	------	------	------	------	------	------	------
373	244	153	91	129	72	57	95	86	63	23	9	7	2
1	1	------	1	------	------	------	------	------	------	------	------	------	------
18	12	5	7	6	3	3	------	------	------	------	------	------	------
118	50	27	23	68	29	39	2	2	------	2	------	------	------
1	1	1	------	------	------	------	------	------	------	------	------	------	------
26	23	13	10	3	2	1	------	------	------	------	------	------	------
620	411	270	141	209	125	84	6	5	1	4	1	1	------
14	10	3	7	4	------	4	------	------	------	------	------	------	------
39	27	9	18	12	2	10	------	------	------	------	------	------	------
5	5	2	3	------	------	------	1	1	------	1	------	------	------
15	15	11	4	------	------	------	------	------	------	------	------	------	------
7	5	4	1	2	------	2	------	------	------	------	------	------	------
1	1	1	------	------	------	------	------	------	------	------	------	------	------
1680	1093	680	413	587	314	273	151	128	84	44	23	17	6

TABLE No. 2. Age and Schooling Certificates issued in State of California, fiscal year ending June 30, 1912.

(Showing sex. age, and literacy of applicants, by counties.)

County.	Total certificates issued	Total. Male. 15 years	Total. Female. 15 years	Literate. Total	Literate. Male. 15 years	Literate. Female. 15 years	Illiterate. Total	Illiterate. Male. 15 years	Illiterate. Female. 15 years
Alameda	385	245	140	365	232	133	20	13	7
Alpine	None issued.								
Amador	None issued.								
Butte	11	11	------	11	11	------	------	------	------
Calaveras	None issued.								
Colusa	None issued.								
Contra Costa	3	2	1	3	2	1	------	------	------
Del Norte	None issued.								
El Dorado	None issued.								
Fresno	17	13	4	17	13	4	------	------	------
Glenn	None issued.								
Humboldt	None issued.								
Imperial	None issued.								
Inyo	None issued.								
Kern	12	9	3	12	9	3	------	------	------
Kings	None issued.								
Lake	None issued.								
Lassen	None issued.								
Los Angeles	790	506	284	670	415	255	120	91	29
Madera	1	1	------	1	1	------	------	------	------
Marin	None issued.								
Mariposa	None issued.								
Mendocino	3	3	------	3	3	------	------	------	------
Merced	1	1	------	1	1	------	------	------	------
Modoc	None issued.								
Mono	None issued.								
Monterey	None issued.								
Napa	18	11	7	18	11	7	------	------	------
Nevada	None issued.								
Orange	None issued.								
Placer	2	2	------	2	2	------	------	------	------
Plumas	None issued.								
Riverside	2	------	2	2	------	2	------	------	------
Sacramento	123	71	52	123	71	52	------	------	------
San Benito	None issued.								
San Bernardino	8	7	1	8	7	1	------	------	------
San Diego	20	14	6	20	14	6	------	------	------
San Francisco	607	429	178	594	423	171	13	6	7
San Joaquin	26	24	2	26	24	2	------	------	------
San Luis Obispo	None issued.								
San Mateo	2	2	------	2	2	------	------	------	------
Santa Barbara	3	3	------	3	3	------	------	------	------
Santa Clara	15	7	8	15	7	8	------	------	------
Santa Cruz	2	1	1	2	1	1	------	------	------
Shasta	None issued.								
Sierra	None issued.								
Siskiyou	None issued.								
Solano	5	5	------	3	3	------	2	2	------
Sonoma	3	3	------	3	3	------	------	------	------
Stanislaus	None issued.								
Sutter	None issued.								
Tehama	None issued.								
Trinity	None issued.								
Tulare	5	------	5	5	------	5	------	------	------
Tuolumne	1	1	------	1	1	------	------	------	------
Ventura	None issued.								
Yolo	1	1	------	1	1	------	------	------	------
Yuba	None issued.								
Totals	2066	1372	694	1911	1260	651	155	112	43

TABLE No. 3. Age and Schooling Certificates issued in State of California, fiscal year ending June 30, 1911.

(Showing sex and literacy of applicants, by countries of birth.)

Country of birth.	Total literate and illiterate.			Literate.			Illiterate.		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
California	941	630	311	910	603	307	31	27	4
Rest of the United States	597	400	197	540	351	189	57	49	8
Austria-Hungary	20	11	9	17	9	8	3	2	1
British Isles	30	21	9	30	21	9	------	------	------
Canada	13	12	1	11	10	1	2	2	------
France	11	6	5	10	5	5	1	1	------
Germany	11	8	3	11	8	3	------	------	------
Hawaii	41	29	12	25	15	10	16	14	2
Italy	64	34	30	53	27	26	11	7	4
Mexico	12	10	2	3	3	------	9	7	2
Portugal	13	5	8	8	2	6	5	3	2
Russia	45	33	12	34	22	12	11	11	------
Scandinavia	3	1	2	3	1	2	------	------	------
Spain	3	3	------	1	1	------	2	2	------
Miscellaneous	27	18	9	24	15	9	3	3	------
Totals	1831	1221	610	1680	1093	587	151	128	23

TABLE No. 4. Age and Schooling Certificates issued in State of California, fiscal year ending June 30, 1912.

(Showing sex and literacy of applicants, by countries of birth.)

Country of birth.	Total literate and illiterate.			Literate.			Illiterate.		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
California	905	628	277	875	604	271	30	24	6
Rest of the United States	790	509	281	740	468	272	50	41	9
Austria-Hungary	18	10	8	13	8	5	5	2	3
British Isles	37	29	8	37	29	8	------	------	------
Canada	19	10	9	17	9	8	2	1	1
France	11	8	3	9	7	2	2	1	1
Germany	21	17	4	20	16	4	1	1	------
Hawaii	44	26	18	40	23	17	4	3	1
Italy	93	57	36	66	39	27	27	18	9
Mexico	19	11	8	11	5	6	8	6	2
Portugal	21	11	10	16	8	8	5	3	2
Russia	30	13	17	17	7	10	13	6	7
Scandinavia	2	1	1	2	1	1	------	------	------
Spain	11	8	3	8	6	2	3	2	1
Miscellaneous	45	34	11	40	30	10	5	4	1
Totals	2066	1372	694	1911	1260	651	155	112	43

TABLE No. 5. Juvenile Court Permits issued in State of California, fiscal year ending June 30, 1912.

(Showing sex and age of applicants, by counties.)

County.	Total permits issued	Male.				Female.			
		Total	12 years	13 years	14 years	Total	12 years	13 years	14 years
Alameda	8	7	1	3	3	1	------	------	1
Alpine	None issued.								
Amador	None issued.								
Butte	None issued.								
Calaveras	None issued.								
Colusa	None issued.								
Contra Costa	None issued.								
Del Norte	None issued.								
El Dorado	None issued.								
Fresno	2	2	------	------	2	------	------	------	------
Glenn	None issued.								
Humboldt	None issued.								
Imperial	1	1	------	------	1	------	------	------	------
Inyo	None issued.								
Kern	None issued.								
Kings	None issued.								
Lake	None issued.								
Lassen	None issued.								
Los Angeles	38	29	1	9	19	9	------	2	[illegible]
Madera	None issued.								
Marin	4	4	------	1	3	------	------	------	------
Mariposa	None issued.								
Mendocino	None issued.								
Merced	None issued.								
Modoc	None issued.								
Mono	None issued.								
Monterey	None issued.								
Napa	None issued.								
Nevada	None issued.								
Orange	None issued.								
Placer	None issued.								
Plumas	None issued.								
Riverside	2	2	1	------	1	------	------	------	------
Sacramento	45	36	3	7	26	9	------	1	8
San Benito	None issued.								
San Bernardino	1	1	------	1	------	------	------	------	------
San Diego	44	43	10	18	15	1	------	------	1
San Francisco	142	113	5	30	78	29	------	8	21
San Joaquin	4	3	------	------	3	1	------	------	1
San Luis Obispo	None issued.								
San Mateo	None issued.								
Santa Barbara	5	5	2	------	3	------	------	------	------
Santa Clara	21	14	2	3	9	7	------	2	5
Santa Cruz	2	2	------	------	2	------	------	------	------
Shasta	None issued.								
Sierra	None issued.								
Siskiyou	None issued.								
Solano	None issued.								
Sonoma	3	1	------	1	------	2	------	------	2
Stanislaus	None issued.								
Sutter	None issued.								
Tehama	None issued.								
Trinity	None issued.								
Tulare	None issued.								
Tuolumne	None issued.								
Ventura	3	3	------	2	1	------	------	------	------
Yolo	1	------	------	------	------	1	1	------	------
Yuba	None issued.								
Totals	326	266	25	75	166	60	1	13	46

TABLE NO. 6. Juvenile Court Permits issued in State of California for the Fiscal Year ending June 30, 1912.

(Showing sex of applicants by countries of birth.)

Country of birth.	Total	Male	Female
California	208	175	33
Rest of the United States	86	72	14
British Isles	3	3	------
Canada	5	3	2
France	2	------	2
Germany	1	1	------
Hawaii	1	1	------
Italy	7	1	6
Mexico	3	2	1
Portugal	1	1	------
Russia	1	1	------
Spain	1	1	------
Miscellaneous	7	5	2
Totals	326	266	60

TABLE NO. 7. Juvenile Court Permits issued in State of California for the Fiscal Year ending June 30, 1912.

(Showing period of time for which issued.)

Period of time for which issued.	Total	Male	Female
Under 1 month	12	5	7
1 to 3 months	38	30	8
3 to 6 months	138	114	24
6 months to 1 year	89	68	21
1 year and over	47	47	------
Indefinite	2	2	------
Totals	326	266	60

TABLE NO. 8. Minors Employed in Stores and Factories in Different Localities in California.

	Total number of employees	Total number of minors	Percentage of minors	Minors.						
				16 to 18 yrs.		Total under 16 years	15 to 16 yrs.		12 to 15 yrs.	
				Male	Female		Male	Female	Male	Female
San Francisco:										
Manufacturing	36842	1513	4.1	814	443	256	140	74	26	16
Wholesale	10290	471	4.6	315	95	61	37	12	11	1
Retail	10566	933	8.8	424	286	223	111	65	34	13
Miscellaneous	2718	42	1.6	34	2	6	4	------	2	------
Totals	60416	2959	4.9	1587	826	546	292	151	73	30
Los Angeles:										
Manufacturing	29618	933	3.1	589	274	70	48	16	6	------
Wholesale	5778	149	2.6	111	25	13	11	1	1	------
Retail	12249	962	7.9	344	349	269	112	126	22	9
Miscellaneous	2000	21	1.1	21	------	------	------	------	------	------
Totals	49645	2065	4.2	1065	648	352	171	143	29	9
Oakland:										
Manufacturing	6491	553	8.5	291	187	75	36	32	4	3
Wholesale	286	3	1.0	2	------	1	1	------	------	------
Retail	2616	265	10.1	91	90	84	47	27	10	------
Miscellaneous	195	------	------	------	------	------	------	------	------	------
Totals	9588	821	8.6	384	277	160	84	59	14	3
Sacramento:										
Manufacturing	2263	80	3.5	41	21	18	7	3	6	2
Wholesale	627	17	2.7	13	2	2	2	------	------	------
Retail	1828	247	13.5	61	126	60	22	19	13	6
Miscellaneous	139	3	2.2	1	1	1	1	------	------	------
Totals	4857	347	7.2	116	150	81	32	22	19	8
San Jose:										
Manufacturing	968	31	3.2	19	8	4	1	2	1	------
Wholesale	86	------	------	------	------	------	------	------	------	------
Retail	805	62	7.7	29	27	6	3	1	2	------
Miscellaneous	102	1	1.0	1	------	------	------	------	------	------
Totals	1961	94	4.8	49	35	10	4	3	3	------
Stockton:										
Manufacturing	1964	71	3.6	52	15	4	4	------	------	------
Wholesale	76	------	------	------	------	------	------	------	------	------
Retail	506	54	10.7	28	16	10	6	1	3	------
Miscellaneous	84	1	1.2	------	------	1	1	------	------	------
Totals	2630	126	4.8	80	31	15	11	1	3	------
San Diego:										
Manufacturing	2052	61	3.0	35	16	10	8	------	2	------
Wholesale	421	5	1.2	2	------	3	2	------	1	------
Retail	1031	105	10.2	34	23	48	17	4	27	------
Miscellaneous	218	------	------	------	------	------	------	------	------	------
Totals	3722	171	4.6	71	39	61	27	4	30	------
Berkeley:										
Manufacturing	1213	58	4.8	35	18	5	3	2	------	------
Retail	251	22	8.8	11	8	3	2	------	1	------
Miscellaneous	36	------	------	------	------	------	------	------	------	------
Totals	1500	80	5.3	46	26	8	5	2	1	------

TABLE NO. 8. Minors Employed in Stores and Factories in Different Localities in California.—Concluded.

	Total number of employees	Total number of minors	Percentage of minors	Minors.						
				15 to 16 yrs.		Total under 16 years	15 to 16 yrs.		12 to 15 yrs.	
				Male	Female		Male	Female	Male	Female
Alameda:										
Manufacturing	1017	20	2.0	18	2	------	------	------	------	------
Retail	61	11	18.0	10	------	1	1	------	------	------
Miscellaneous	16	--------	------	------	------	------	------	------	------	------
Totals	1094	31	2.8	28	2	1	1	------	------	------
Pasadena:										
Manufacturing	722	6	0.8	3	------	3	1	------	2	------
Retail	527	19	3.6	11	6	2	1	------	1	------
Miscellaneous	28	--------	------	------	------	------	------	------	------	------
Totals	1277	25	2.0	14	6	5	2	------	3	------
Miscellaneous towns:										
Manufacturing	9726	336	3.5	161	118	57	24	13	17	3
Wholesale and retail	1844	126	6.8	62	32	32	18	2	12	------
Miscellaneous	289	8	2.8	3	2	3	------	------	3	------
Totals	11859	470	4.0	226	152	92	42	15	32	3
Recapitulation:										
Manufacturing	92876	3662	3.9	2058	1102	502	272	142	64	24
Wholesale	17564	645	3.7	443	122	80	53	13	13	1
Retail	30440	2680	8.8	1043	931	706	322	243	113	28
Miscellaneous	5825	76	1.3	60	5	11	6	------	5	------
Wholesale and retail	1844	126	6.8	62	32	32	18	2	12	-----
Grand totals	148549	7189	4.8	3666	2192	1331	671	400	207	53

EMPLOYMENT AGENCIES.

TABLE No. 1. General Employment Agencies in San Francisco, fiscal year ending June 30, 1911.

OCCUPATIONS.	Number.	Amount of fees.	Average fee.
Males.			
Bakers	558	$1,753 25	$3 14
Barkeepers	63	216 50	3 44
Blacksmiths	554	1,547 00	2 79
Bricklayers	107	372 50	3 48
Butchers	132	340 75	2 58
Carpenters	1,692	4,199 50	2 47
Choremen	1,056	1,870 20	1 77
Clerks	116	741 25	6 39
Cooks	1,838	5,399 25	2 94
Drillers	352	559 00	1 59
Engineers	221	748 00	3 38
Firemen	102	272 50	2 67
Foremen	140	524 50	3 75
Fruit pickers	489	520 25	1 06
Gardeners	191	451 00	2 36
Help, factory	25	27 00	1 08
Help, general	513	864 25	1 68
Help, hotel	330	688 25	2 09
Help, kitchen	1,938	3,112 35	1 61
Laborers, general	18,240	22,310 10	1 22
Laborers, railroad	11,883	17,517 75	1 47
Man and wife	273	1,112 75	4 08
Machinists	295	830 00	2 81
Mechanics, general	203	540 50	2 66
Milkers and dairymen	583	1,274 75	2 19
Miners	482	985 25	2 04
Muckers	348	510 00	1 46
Painters	195	358 00	1 83
Porters, janitors, etc.	1,026	2,409 60	2 35
Ranch hands	1,899	3,034 00	1 60
Sawmill hands	331	593 00	1 79
Stablemen	416	790 00	1 90
Teamsters	1,469	2,408 00	1 63
Waiters	927	1,845 25	1 99
Woodsmen	1,361	2,316 75	1 70
Unclassified	1,789	3,472 75	1 94
Totals	52,137	$86,515 75	$1 66

TABLE No. 2. Female Employment Agencies in San Francisco, fiscal year ending June 30, 1911.

OCCUPATIONS.	Number.	Amount of fees.	Average fee.
Males.			
Bakers	13	$68 50	$5 27
Barkeepers	17	81 00	4 76
Blacksmiths	2	5 50	2 75
Butchers	4	19 00	4 75
Carpenters	3	16 00	5 33
Choremen	6	17 50	2 92
Clerks	8	30 50	3 81
Cooks	85	430 00	5 06
Drillers	4	24 00	6 00
Engineers	1	3 00	3 00
Gardeners	25	76 50	3 06
Help, general	26	70 00	2 69
Help, hotel	107	248 00	2 32
Help, kitchen	194	498 00	2 57
Man and wife	34	184 50	5 43
Mechanics, general	1	3 00	3 00
Milkers and dairymen	6	18 50	3 08
Painters	1	1 00	1 00
Porters, janitors, etc.	170	482 25	2 84
Ranch hands	2	6 50	3 25
Stablemen	12	35 50	2 96
Teamsters	8	23 50	2 94
Waiters	125	372 00	2 98
Unclassified	185	790 75	4 27
Totals	1,039	$3,505 00	$3 37
Females.			
Cooks	1,151	$3,806 75	$3 31
Chambermaids	1,028	2,283 50	2 22
Clerical help	13	61 00	4 69
Housework, general	1,583	4,212 50	2 66
Housekeepers	157	392 00	2 50
Kitchen help	90	221 00	2 46
Laundry workers	125	327 50	2 62
Linen girls	3	6 00	2 00
Maids	436	1,068 75	2 45
Nurse girls	389	1,002 50	2 58
Saleswomen	62	140 00	2 26
Seamstresses	33	76 00	2 30
Telephone operators	13	35 50	2 73
Waitresses	1,693	3,990 20	2 36
Unclassified	76	212 20	2 79
Totals	6,582	$17,835 40	$2 60

TABLE No. 3. Hotel Employment Agencies in San Francisco, fiscal year ending June 30, 1911.

OCCUPATIONS.	Number.	Amount of fees.	Average fee.
Males.			
Bakers	27	$110 50	$4 09
Barkeepers	12	69 50	5 77
Butchers	7	40 50	5 79
Choremen	13	34 50	2 65
Clerks	116	648 50	5 59
Cooks	379	1,731 00	4 57
Engineers	11	54 00	4 91
Firemen	2	6 50	3 25
Gardeners	10	34 00	3 40
Help, hotel	442	1,140 10	2 58
Help, kitchen	347	894 75	2 58
Man and wife	2	15 50	7 75
Milkers and dairymen	2	8 00	4 00
Painters	3	14 50	4 83
Porters, janitors, etc.	418	1,153 15	2 76
Ranch hands	2	7 00	3 50
Stablemen	1	3 00	3 00
Waiters	345	991 25	2 87
Unclassified	73	326 00	4 47
Totals	2,212	$7,284 25	$3 29
Females.			
Chambermaids	108	$233 25	$2 16
Clerical help	3	13 50	4 50
Housework, general	7	17 50	2 50
Housekeepers	21	88 00	4 19
Kitchen help	15	40 50	2 70
Laundry workers	65	155 00	2 38
Linen girls	4	10 00	2 50
Maids	305	597 75	1 96
Nurse girls	84	203 50	2 42
Saleswomen	3	6 00	2 00
Seamstresses	8	15 00	1 88
Telephone operators	8	18 50	2 31
Waitresses	468	954 25	2 04
Unclassified	8	24 50	3 06
Totals	1,107	$2,377 25	$2 15

TABLE No. 4. Oriental Employment Agencies in San Francisco, fiscal year ending June 30, 1911.

OCCUPATIONS.	Number.	Amount of fees.	Average fee.
Males.			
Bedmakers	75	$209 70	$2 80
Cooks	1,436	5,181 50	3 60
Help, kitchen	258	780 75	3 03
Help, laundry	139	500 80	3 60
House servants	327	812 50	2 48
Porters	105	295 95	2 82
School boys	142	152 55	1 07
Waiters	262	724 35	2 76
Unclassified	9	47 00	5 22
Totals	2,753	$8,705 10	$3 16

TABLE No. 5. Commercial Employment Agencies in San Francisco, fiscal year ending June 30, 1911.

OCCUPATIONS.	Number.	Amount of fees.	Average fee.
Males and females.			
Bookkeepers	121	$2,084 50	$17 23
Clerks	176	2,758 75	15 68
Factory girls	65	65 00	1 00
Salesmen	18	395 00	21 94
Stenographers	294	3,022 05	10 28
Telephone operators	4	35 25	8 81
Unclassified	53	821 00	15 49
Totals	731	$9,181 55	$12 56

TABLE No. 6. Teachers' Employment Agencies in San Francisco, fiscal year ending June 30, 1911.

OCCUPATIONS.	Number.	Amount of fees.	Average fee.
Males and females.			
Bookkeepers	48	$729 00	$15 19
Clerks	33	390 50	11 84
Salesmen	2	47 50	23 75
Stenographers	150	1,589 10	10 59
Teachers	97	4,172 15	43 01
Unclassified	1	16 25	16 25
Totals	331	$6,944 50	$20 98

TABLE No. 7. Theatrical Employment Agencies in San Francisco, fiscal year ending June 30, 1911.

OCCUPATIONS.	Number.	Amount of fees.	Average fee.
Males and females.			
Performers	1,338	$3,448 31	*$2 58
Totals	1,338	$3,448 31	$2 58

*Figured on basis of an engagement of one week.

TABLE No. 8. Summary of all Employment Agencies in San Francisco, fiscal year ending June 30, 1911.

CLASS OF AGENCY.	Number of agencies.	Number of positions furnished.				Amount of fees.	Average fee.
		Total.	Male.	Female.	Not specified.		
Commercial	4	731			731	$9,181 55	$12 56
Female	10	7,621	1,039	6,582		21,340 40	2 67
General	19	52,137	52,137			86,515 75	1 66
Hotel	4	3,319	2,212	1,107		9,661 52	2 91
Oriental	11	2,753	2,753			8,705 10	3 16
Teachers	2	331			331	6,944 50	20 98
Theatrical	4	1,338			1,338	3,448 31	*2 58
Totals	54	68,230	58,141	7,689	2,400	$145,797 13	$2 14

*Figured on basis of an engagement of one week.

TABLE No. 9. General Employment Agencies in Los Angeles, license year ending March 31, 1912.

OCCUPATIONS.	Number.	Amount of fees.	Average fee.
Males.			
Bakers	571	$1,335 00	$2 34
Blacksmiths	599	1,410 00	2 35
Bricklayers	65	123 50	1 90
Butchers	58	142 25	2 45
Carpenters	2,202	4,799 00	2 18
Choremen	461	747 35	1 62
Clerks	159	412 30	2 59
Cooks	1,153	3,314 95	2 88
Drillers	104	221 00	2 13
Engineers	293	890 00	3 04
Firemen	58	144 50	2 49
Foremen	138	424 25	3 07
Fruit pickers	45	68 00	1 51
Gardeners	149	304 50	2 04
Help, factory	97	141 00	1 45
Help, general	318	457 45	1 44
Help, hotel	258	450 75	1 75
Help, kitchen	1,117	1,698 85	1 52
Laborers, general	19,023	23,926 10	1 26
Laborers, railroad	2,340	5,200 30	2 22
Man and wife	270	1,070 00	3 97
Machinists	96	228 50	2 38
Mechanics, general	547	1,187 50	2 17
Milkers and dairymen	799	1,562 05	1 95
Miners	369	824 75	2 23
Muckers	426	503 75	1 18
Painters	281	516 50	1 84
Porters, janitors, etc.	305	555 50	1 83
Ranch hands	5,135	7,492 55	1 46
Sawmill hands	31	54 50	1 76
Stablemen	276	514 25	1 86
Teamsters	4,052	5,640 05	1 39
Waiters	1,223	2,032 75	1 66
Woodsmen	53	81 50	1 54
Unclassified	493	1,024 00	2 08
Totals	43,564	$69,499 20	$1 59

TABLE No. 10. Female Employment Agencies in Los Angeles, license year ending March 31, 1912.

OCCUPATIONS.	Number.	Amount of fees.	Average fee.
Males.			
Bakers	6	$17 50	$2 92
Carpenters	1	1 50	1 50
Choremen	1	2 50	2 50
Clerks	4	16 50	4 13
Cooks	17	32 15	1 89
Fruit pickers	3	4 50	1 50
Gardeners	20	43 00	2 15
Help, hotel	41	78 25	1 91
Help, kitchen	6	10 50	1 75
Man and wife	10	45 50	4 55
Mechanics, general	3	16 50	5 50
Porters, janitors, etc.	71	131 90	1 86
Ranch hands	10	24 00	2 40
Stablemen	4	7 50	1 88
Teamsters	1	2 50	2 50
Waiters	2	4 00	2 00
Unclassified	88	228 05	2 60
Totals	288	$666 35	$2 31
Females.			
Cooks	944	$2,459 40	$2 61
Chambermaids	416	802 40	1 93
Clerical help	5	16 50	3 30
Factory help	6	8 00	1 33
Housework, general	3,007	5,304 35	1 76
Housekeepers	36	59 00	1 64
Kitchen help	102	160 50	1 57
Laundry workers	19	48 20	2 54
Linen girls	7	10 50	1 50
Maids	133	184 15	1 38
Nurse girls	266	497 50	1 87
Seamstresses	8	7 75	97
Waitresses	301	445 75	1 48
Unclassified	4	5 00	1 25
Totals	5,254	$10,009 00	$1 91

TABLE No. 11. Hotel Employment Agencies in Los Angeles, license year ending March 31, 1912.

OCCUPATIONS.	Number.	Amount of fees.	Average fee.
Males.			
Bakers	92	$266 50	$2 90
Choremen	10	14 25	1 43
Clerks	132	417 50	3 16
Cooks	909	3,166 90	3 48
Engineers	17	67 00	3 82
Gardeners	16	35 00	2 19
Help, hotel	1,038	2,044 80	1 97
Help, kitchen	1,656	2,846 25	1 72
Laborers, general	26	37 50	1 44
Man and wife	107	464 50	4 34
Milkers and dairymen	6	12 00	2 00
Porters, janitors, etc.	711	1,536 80	2 16
Ranch hands	83	146 00	1 76
Teamsters	2	4 50	2 25
Waiters	565	1,200 80	2 13
Unclassified	280	680 60	2 43
Totals	5,650	$12,940 90	$2 29
Females.			
Cooks	252	$745 00	$2 96
Chambermaids	318	559 70	1 76
Clerical help	68	170 75	2 51
Housework, general	951	1,733 71	1 83
Housekeepers	38	80 00	2 11
Kitchen help	501	671 25	1 34
Laundry workers	24	46 75	1 95
Linen girls	39	78 25	2 01
Maids	860	1,423 60	1 66
Nurse girls	29	52 00	1 79
Saleswomen	6	11 50	1 92
Telephone operators	5	7 75	1 55
Waitresses	1,831	2,974 15	1 62
Unclassified	139	261 05	1 88
Totals	5,061	$8,815 46	$1 74

TABLE No. 12. Oriental Employment Agencies in Los Angeles, license year ending March 31, 1912.

OCCUPATIONS.	Number.	Amount of fees.	Average fee.
Males.			
Cooks	811	$2,164 10	$2 67
Help, hotel	204	452 55	2 22
Help, kitchen	487	1,111 40	2 28
Help, laundry	18	45 50	2 53
House servants	583	1,231 10	2 11
Man and wife	18	52 45	2 91
Porters	440	1,031 70	2 34
School boys	51	41 55	81
Waiters	205	454 70	2 22
Unclassified	12	19 55	1 63
Totals	2,829	$6,604 60	$2 33

TABLE No. 13. Commercial Employment Agencies in Los Angeles, license year ending March 31, 1912.

OCCUPATIONS.	Number.	Amount of fees.	Average fee.
Males and females.			
Bookkeepers	32	$427 05	$13 35
Bookkeepers and stenographers	13	190 25	14 63
Clerks	601	9,297 25	15 47
Stenographers	374	5,189 75	13 88
Teachers	3	84 00	28 00
Totals	1,023	$15,188 30	$14 85

TABLE No. 14. Teachers' Employment Agencies in Los Angeles, license year ending March 31, 1912.

OCCUPATIONS.	Number.	Amount of fees.	Average fee.
Males and females.			
Clerks	143	$1,396 50	$9 77
Stenographers	3	30 00	10 00
Teachers	516	20,816 62	40 34
Totals	662	$22,243 12	$33 60

TABLE No. 15. Nurses' Employment Agencies in Los Angeles, license year ending March 31, 1912.

OCCUPATIONS.	Number.	Amount of fees.	Average fee.
Males.			
Clerks	3	$35 00	$11 67
Foremen	2	37 50	18 75
Salesmen	10	83 50	8 35
Totals	15	$156 00	$10 40
Females.			
Bookkeepers	3	$33 75	$11 25
Cooks	1	3 00	3 00
Clerical help	1	4 00	4 00
Housework, general	2	5 50	2 75
Housekeepers	2	8 00	4 00
Nurses	109	402 30	3 69
Saleswomen	7	33 50	4 79
Seamstresses	4	16 50	4 13
Stenographers	14	128 75	9 20
Telephone operators	1	2 50	2 50
Totals	144	$637 80	$4 43

TABLE No. 16. Summary of all Employment Agencies in Los Angeles, license year ending March 31, 1912.

CLASS OF AGENCY.	Number of agencies.	Number of positions furnished.				Amount of fees.	Average fee.
		Total.	Male.	Female.	Not specified.		
Commercial	6	1,023			1,023	$15,188 30	$14 85
Female	6	5,542	288	5,254		10,675 35	1 93
General	17	43,564	43,564			69,499 20	1 59
Hotel	6	10,711	5,650	5,061		21,756 36	2 03
Nurses	1	159	15	144		793 80	4 99
Oriental	11	2,829	2,829			6,604 60	2 33
Teachers	5	662			662	22,243 12	33 60
Theatrical	1	645			645	832 40	†1 29
Miscellaneous*	9	1,327			1,327	3,576 34	2 70
Totals	62	66,462	52,346	10,459	3,657	$151,169 47	$2 27

*Received too late for classification. †Figured on basis of an engagement of one week.

TABLE No. 17. General Employment Agencies in Oakland, license year ending March 31, 1912.

OCCUPATIONS.	Number.	Amount of fees.	Average fee.
Males.			
Bakers	16	$33 00	$2 06
Blacksmiths	36	79 00	2 20
Bricklayers	3	6 50	2 17
Butchers	4	9 00	2 25
Carpenters	85	156 00	1 84
Choremen	109	158 75	1 44
Cooks	180	422 75	2 35
Drillers	7	10 00	1 43
Engineers	3	9 50	3 17
Foremen	2	6 00	3 00
Fruit pickers	28	29 50	1 05
Gardeners	11	21 00	1 91
Help, factory	7	9 50	1 37
Help, general	30	41 00	1 37
Help, hotel	7	8 00	1 14
Help, kitchen	315	440 00	1 40
Laborers, general	1,633	1,702 50	1 04
Man and wife	3	13 50	4 50
Machinists	4	10 50	2 63
Mechanics, general	28	56 00	2 00
Milkers and dairymen	39	71 00	1 82
Miners	5	11 50	2 30
Painters	55	70 00	1 27
Porters, janitors, etc.	112	193 00	1 73
Ranch hands	105	149 25	1 42
Sawmill hands	5	12 00	2 40
Stablemen	45	84 50	1 88
Teamsters	200	275 00	1 38
Waiters	105	180 40	1 72
Unclassified	9	17 50	1 94
Totals	3,191	$4,286 15	$1 34
Females.			
Chambermaids	2	$2 50	$1 25
Housework, general	19	29 00	1 53
Housekeepers	1	1 00	1 00
Laundry workers	3	6 50	2 17
Maids	2	4 00	2 00
Nurse girls	6	15 00	2 50
Waitresses	29	41 50	1 43
Totals	62	$99 50	$1 60

TABLE No. 18. Female Employment Agencies in Oakland, license year ending March 31, 1912.

OCCUPATIONS.	Number.	Amount of fees.	Average fee.
Males.			
Clerks	19	$145 45	$7 66
Gardeners	4	7 00	1 75
Help, hotel	5	8 75	1 75
Man and wife	2	10 00	5 00
Porters, janitors, etc.	12	24 75	2 06
Waiters	3	6 00	2 00
Unclassified	5	23 60	4 72
Totals	50	$225 55	$4 51
Females.			
Cooks	322	$868 70	$2 70
Chambermaids	249	476 00	1 91
Clerical help	5	45 40	9 08
Factory help	1	2 00	2 00
Housework, general	959	1,805 65	1 88
Housekeepers	41	82 15	2 00
Kitchen help	41	71 85	1 75
Laundry workers	12	24 40	2 03
Maids	19	35 25	1 86
Nurse girls	187	308 05	1 65
Seamstresses	1	1 00	1 00
Telephone operators	1	75	75
Waitresses	173	333 15	1 93
Totals	2,011	$4,054 35	$2 02

TABLE No. 19. Oriental Employment Agencies in Oakland, license year ending March 31, 1912.

OCCUPATIONS.	Number.	Amount of fees.	Average fee.
Males.			
Cooks	316	$668 70	$2 12
Fruit pickers	1	2 00	2 00
Help, kitchen	25	35 35	1 41
House servants	59	108 50	1 84
Laundry workers	2	8 50	4 25
Porters	44	78 10	1 78
School boys	17	14 80	87
Waiters	49	91 85	1 87
Totals	513	$1,007 80	$1 96

TABLE No. 20. Summary of all Employment Agencies in Oakland, license year ending March 31, 1912.

CLASS OF AGENCY.	Number of agencies.	Number of positions furnished.			Amount of fees.	Average fee.
		Total.	Male.	Female.		
Female	7	2,061	50	2,011	$4,279 90	$2 08
General	2	3,253	3,191	62	4,385 65	1 35
Oriental	3	513	513		1,007 80	1 96
Totals	12	5,827	3,754	2,073	$9,673 35	$1 66

TABLE No. 21. Oriental Employment Agencies in Alameda, license year ending March 31, 1912.

OCCUPATIONS.	Number.	Amount of fees.	Average fee.
Males.			
Cooks	31	$34 95	$1 13
Gardeners	2	2 50	1 25
Housework, general	9	9 60	1 07
Totals	42	$47 05	$1 12

TABLE No. 22.* Teachers' Employment Agencies in Berkeley, license year ending March 31, 1912.

OCCUPATIONS.	Number.	Amount of fees.	Average fee.
Males and females.			
Teachers	227	$9,568 74	$42 15
Totals	227	$9,568 74	$42 15

Note: Sex not specified.

TABLE No. 23. General Employment Agencies in Fresno, license year ending March 31, 1912.

OCCUPATIONS.	Number.	Amount of fees.	Average fee.
Males.			
Bakers	9	$18 00	$2 00
Blacksmiths	13	24 50	1 89
Carpenters	17	31 00	1 82
Choreman	19	21 35	1 12
Clerks	1	1 00	1 00
Cooks	101	159 00	1 57
Engineers	4	8 75	2 19
Firemen	1	1 00	1 00
Foremen	4	14 50	3 63
Fruit pickers	38	38 00	1 00
Gardeners	3	3 50	1 17
Help, factory	4	4 00	1 00
Help, hotel	5	6 25	1 25
Help, kitchen	32	35 50	1 11
Laborers, general	691	732 80	1 06
Laborers, railroad	57	57 00	1 00
Man and wife	12	38 50	3 21
Mechanics, general	5	7 50	1 50
Milkers and dairymen	34	54 25	1 60
Miners	8	11 00	1 38
Painters	2	3 00	1 50
Porters, janitors, etc.	3	4 00	1 33
Ranch hands	562	688 20	1 22
Stablemen	10	10 10	1 01
Teamsters	100	94 40	94
Waiters	8	9 05	1 13
Totals	1,743	$2,076 15	$1 19
Females.			
Chambermaids	6	$8 00	$1 33
Housework, general	12	12 50	1 04
Waitresses	7	8 50	1 21
Totals	25	$29 00	$1 16

TABLE No. 24. General Employment Agencies in Pasadena, license year ending March 31, 1912.

OCCUPATIONS.	Number.	Amount of fees.	Average fee.
Males.			
Clerks	3	$4 75	$1 58
Cooks	197	501 70	2 54
Gardeners	19	47 50	2 50
Help, general	103	89 90	87
Help, hotel	15	26 00	1 73
Help, kitchen	14	15 00	1 07
Laborers, general	3	6 50	2 17
Man and wife	1	no fee	
Milkers and dairymen	2	1 75	88
Painters	1	no fee	
Porters, janitors, etc.	5	12 50	2 50
Ranch hands	6	7 50	1 25
Stablemen	1	2 50	2 50
Teamsters	3	2 00	67
Waiters	4	6 00	1 50
Unclassified	8	14 50	1 81
Totals	385	$738 10	$1 92
Females.			
Chambermaids	108	$203 50	$1 89
Housework, general	403	712 95	1 77
Housekeekers	25	32 00	1 28
Kitchen help	6	7 00	1 17
Laundry workers	3	3 00	1 00
Linen girls	1	no fee	
Maids	9	16 00	1 78
Nurse girls	43	63 40	1 48
Seamstresses	1	3 00	3 00
Telephone operators	1	1 50	1 50
Waitresses	68	81 25	1 19
Unclassified	4	6 25	1 56
Totals	672	$1,129 85	$1 68

TABLE No. 25. Nurses' Employment Agencies in Pasadena, license year ending March 31, 1912.

OCCUPATIONS.	Number.	Amount of fees.	Average fee.
Females.			
Housework, general	1	$0 50	$0 50
Nurses	76	147 25	1 94
Totals	77	$147 75	$1 92

TABLE No. 26. Oriental Employment Agencies in Pasadena, license year ending March 31, 1912.

OCCUPATIONS.	Number.	Amount of fees.	Average fee.
Males.			
Cooks	41	$137 00	$3 34
Help, hotel	1	3 50	3 50
Help, kitchen	3	9 60	3 20
House servants	14	42 50	3 03
Man and wife	3	17 00	5 67
Porters	1	3 50	3 50
School boys	1	1 00	1 00
Waiters	16	19 20	1 20
Unclassified	5	15 00	3 00
Totals	85	$247 30	$2 91

TABLE No. 27. General Employment Agencies in Sacramento, license year ending March 31, 1912.

OCCUPATIONS.	Number.	Amount of fees.	Average fee.
Males.			
Bakers	12	$27 00	$2 25
Barkeepers	6	14 50	2 42
Blacksmiths	136	343 00	2 52
Bricklayers	4	7 00	1 75
Butchers	2	5 00	2 50
Carpenters	491	1,119 50	2 28
Choremen	228	328 75	1 44
Clerks	3	4 00	1 33
Cooks	805	1,792 85	2 23
Drillers	9	9 50	1 06
Engineers	28	85 50	3 05
Firemen	19	44 00	2 32
Foremen	21	67 00	3 19
Fruit pickers	251	263 00	1 05
Gardeners	70	130 50	1 86
Help, general	4	6 00	1 50
Help, hotel	19	29 00	1 53
Help, kitchen	220	284 25	1 29
Laborers, general	3,264	3,917 25	1 20
Laborers, railroad	8,391	7,515 50	90
Man and wife	24	75 50	3 15
Machinists	11	22 00	2 00
Mechanics, general	17	42 50	2 50
Milkers and dairymen	559	1,135 50	2 03
Miners	53	139 50	2 63
Muckers	23	29 50	1 28
Painters	34	65 50	1 93
Porters, janitors, etc.	70	104 25	1 49
Ranch hands	3,390	3,971 50	1 17
Stablemen	19	30 50	1 61
Teamsters	1,431	1,849 00	1 29
Waiters	160	250 75	1 57
Woodsmen	153	213 00	1 39
Unclassified	139	195 50	1 41
Totals	20,066	$24,117 60	$1 20
Females.			
Chambermaids	30	$33 00	$1 10
Clerical help	1	3 50	3 50
Housework, general	53	63 25	1 19
Housekeepers	29	34 00	1 17
Laundry workers	4	4 50	1 13
Maids	1	1 00	1 00
Nurse girls	2	1 50	75
Seamstresses	1	1 00	1 00
Telephone operators	1	1 00	1 00
Waitresses	133	159 25	1 20
Totals	255	$302 00	$1 18

TABLE No. 28. Oriental Employment Agencies in Sacramento, license year ending March 31, 1912.

OCCUPATIONS.	Number.	Amount of fees.	Average fee.
Males.			
Cooks	373	$711 65	$1 91
Help, kitchen	136	190 65	1 40
Help, hotel	6	10 00	1 67
House servants	54	60 95	1 13
Laundry workers	7	12 00	1 71
Laborers, railroad	179	454 00	2 54
Porters	34	54 00	1 59
Waiters	6	9 00	1 50
Unclassified	6	10 00	1 67
Totals	801	$1,512 25	$1 88

TABLE No. 29. General Employment Agencies in San Diego, license year ending March 31, 1912.

OCCUPATIONS.	Number.	Amount of fees.	Average fee.
Males.			
Bakers	8	$16 00	$2 00
Blacksmiths	74	299 25	4 04
Bricklayers	1	6 00	6 00
Butchers	3	11 00	3 67
Carpenters	151	382 50	2 53
Choremen	63	198 00	3 14
Clerks	52	118 25	2 27
Cooks	407	1,454 75	3 57
Drillers	259	490 30	1 89
Engineers	7	24 00	3 43
Firemen	18	85 00	4 72
Foremen	11	48 50	4 41
Fruit pickers	30	65 00	2 17
Gardeners	20	50 00	2 50
Help, general	30	37 25	1 24
Help, hotel	203	386 25	1 90
Help, kitchen	319	547 30	1 72
Laborers, general	3,061	7,597 55	2 48
Laborers, railroad	8	13 00	1 63
Man and wife	9	48 00	5 33
Machinists	10	30 00	3 00
Mechanics, general	2	6 00	3 00
Milkers and dairymen	43	142 50	3 31
Miners	46	134 00	2 91
Painters	10	20 50	2 05
Porters, janitors, etc.	63	140 50	2 23
Ranch hands	572	1,462 45	2 56
Sawmill hands	5	5 40	1 08
Stablemen	39	103 00	2 64
Teamsters	715	1,998 50	2 80
Waiters	61	120 00	1 97
Unclassified	194	387 25	1 99
Totals	6,494	$16,428 00	$2 53
Females.			
Chambermaids	169	$314 50	$1 86
Clerical help	15	33 00	2 20
Factory help	18	13 75	76
Housework, general	381	793 85	2 08
Housekeepers	20	42 50	2 13
Kitchen help	4	11 00	2 75
Laundry workers	41	80 70	1 97
Nurse girls	40	86 75	2 17
Saleswomen	2	3 50	1 75
Waitresses	142	298 50	2 10
Totals	832	$1,678 05	$2 02

TABLE No. 30. General Employment Agencies in San José, license year ending March 31, 1912.

OCCUPATIONS.	Number.	Amount of fees.	Average fee.
Males.			
Bakers	7	$10 00	$1 43
Blacksmiths	1	2 00	2 00
Bricklayers	2	4 00	2 00
Butchers	1	2 50	2 50
Carpenters	18	35 50	1 97
Choremen	32	32 50	1 02
Clerks	5	13 50	2 70
Cooks	123	220 00	1 79
Engineers	3	5 50	1 83
Firemen	3	5 50	1 83
Foremen	2	3 00	1 50
Fruit pickers	213	222 50	1 04
Gardeners	25	33 55	1 34
Help, general	31	36 00	1 16
Help, hotel	39	47 00	1 21
Help, kitchen	81	96 00	1 19
Laborers, general	500	544 75	1 09
Laborers, railroad	25	31 00	1 24
Man and wife	22	67 00	3 05
Machinists	5	11 00	2 20
Milkers and dairymen	64	96 00	1 50
Miners	42	53 00	1 26
Muckers	3	3 00	1 00
Porters, janitors, etc.	36	51 25	1 42
Ranch hands	657	752 25	1 15
Stablemen	3	5 00	1 67
Teamsters	157	182 55	1 16
Waiters	113	123 50	1 09
Unclassified	53	80 50	1 52
Totals	2,266	$2,769 85	$1 22
Females.			
Cooks	67	$167 25	$2 50
Chambermaids	22	31 50	1 43
Housework, general	209	339 25	1 62
Laundry workers	13	7 70	59
Nurse girls	27	43 00	1 59
Saleswomen	3	3 50	1 17
Waitresses	61	71 50	1 17
Totals	402	$663 70	$1 65

TABLE No. 31. General Employment Agencies in Stockton, license year ending March 31, 1912.

OCCUPATIONS.	Number.	Amount of fees.	Average fee.
Males.			
Bakers	2	$4 00	$2 00
Blacksmiths	49	121 25	2 48
Butchers	4	6 75	1 69
Carpenters	82	188 00	2 29
Choremen	349	450 05	1 29
Clerks	4	6 75	1 69
Cooks	1,011	1,808 00	1 79
Drillers	5	8 50	1 70
Engineers	8	21 75	2 72
Firemen	21	45 75	2 18
Foremen	12	30 75	2 56
Fruit pickers	158	175 50	1 11
Gardeners	9	13 75	1 53
Help, factory	2	2 00	1 00
Help, general	7	5 25	75
Help, hotel	3	5 00	1 67
Help, kitchen	94	125 25	1 33
Laborers, general	1,706	2,422 30	1 42
Laborers, railroad	173	195 50	1 13
Man and wife	47	119 25	2 54
Machinists	16	43 50	2 72
Mechanics, general	7	19 50	2 79
Milkers and dairymen	312	562 75	1 80
Muckers	70	75 00	1 07
Painters	3	7 00	2 33
Porters, janitors, etc.	50	74 75	1 50
Ranch hands	4,440	6,433 60	1 45
Sawmill hands	4	6 25	1 56
Stablemen	9	12 50	1 39
Teamsters	850	1,311 05	1 54
Waiters	37	59 50	1 61
Unclassified	38	44 65	1 17
Totals	9,582	$14,405 40	$1 50
Females.			
Chambermaids	51	$56 25	$1 10
Housework, general	78	77 00	99
Housekeepers	26	33 75	1 30
Laundry workers	10	10 00	1 00
Nurse girls	8	8 25	1 03
Waitresses	30	42 25	1 41
Totals	203	$227 50	$1 12

TABLE No. 32. Character of Employment Agencies in Third and Fourth Class Cities, license year ending March 31, 1912.

City.	Total number of agencies.	Character of agencies.			
		General.	Nurses.	Oriental.	Teachers.
Alameda	2			2	
Berkeley	2				2
Fresno	7	7			
Pasadena	10	7	1	2	
Sacramento	14	11		3	
San Diego	16	16			
San Jose	4	4			
Stockton	6	6			
Totals	61	51	1	7	2

TABLE No. 33. Summary of all Employment Agencies in Third and Fourth Class Cities, license year ending March 31, 1912.

Class of agency.	Number of agencies.	Number of positions.				Amount of fees.	Average fee.
		Total.	Male.	Female.	Not specified.		
General	51	42,925	40,536	2,389		$64,565 20	$1 50
Nurses	1	77		77		147 75	1 92
Oriental	7	928	928			1,806 60	1 95
Teachers	2	227			227	9,568 74	42 15
Totals	61	44,157	41,464	2,466	227	$76,088 29	$1 72

TABLE No. 34. Character of Employment Agencies in Miscellaneous Towns, license year ending March 31, 1912.

City.	Total number of agencies.	Character of agencies.		
		Female.	General.	Oriental.
Arlington	1	----------	----------	1
Azusa	1	----------	1	----------
Bakersfield	5	----------	4	1
Colton	1	----------	1	----------
Chico	1	----------	1	----------
Cucamonga	1	----------	----------	1
El Centro	2	----------	2	----------
Eureka	2	----------	2	----------
Highgrove	1	----------	----------	1
Hollywood	2	1	1	----------
Long Beach	4	1	1	2
Lordsburg	1	----------	----------	1
Maricopa	1	----------	1	----------
Marysville	1	----------	1	----------
Modesto	1	----------	1	----------
Monterey	1	----------	----------	1
Ocean Park	2	----------	----------	2
Oroville	1	----------	1	----------
Palo Alto	1	----------	----------	1
Pomona	2	----------	----------	2
Red Bluff	1	----------	1	----------
Redlands	2	----------	2	----------
Riverside	1	----------	----------	1
San Bernardino	6	----------	6	----------
San Mateo	1	1	----------	----------
Santa Barbara	1	1	----------	----------
Santa Cruz	1	----------	1	----------
Santa Rosa	3	----------	3	----------
Taft	1	----------	1	----------
Tracy	1	----------	1	----------
Upland	1	----------	----------	1
Watsonville	2	----------	----------	2
Wheatland	1	----------	1	----------
Totals	54	4	33	17

TABLE No. 35. Employment Agencies in Miscellaneous Towns summarized by class of agency, license year ending March 31, 1912.

Class of agency.	Number of agencies.	Number of positions furnished.			Amount of fees.	Average fee.
		Total.	Male.	Female.		
Female	4	525	2	523	$953 65	$1 82
General	33	8,362	8,052	310	12,895 25	1 54
Oriental	17	845	845	----------	1,761 95	2 09
Totals	54	9,732	8,899	833	$15,610 85	$1 60

TABLE No. 36. Summary of the Employment Agencies of the State, license year ending March 31, 1912.

(Tabulated by class of agency.)

Class of agency.	Number of agencies.	Number of positions furnished.				Amount of fees paid exclusive of day work.	Average fee.	Amount of fees paid for day work.	Total amount of fees.
		Total.	Male.	Female.	Not specified.				
Commercial	10	1,754	----	----	1,754	$24,369 85	$13 89	----	$24,369 85
Female	27	15,749	1,379	14,370	----	37,249 30	2 37	$182 15	37,431 45
General	122	150,241	147,480	2,761	----	237,861 05	1 58	165 05	238,026 10
Hotel	10	14,030	7,862	6,168	----	31,417 88	2 24	----	31,417 88
Nurses	2	236	15	221	----	941 55	3 99	----	941 55
Oriental	49	7,868	7,868	----	----	19,886 05	2 53	4,378 00	24,264 05
Teachers	9	1,220	----	----	1,220	38,756 36	31 77	----	38,756 36
Theatrical	5	1,983	----	----	1,983	4,280 71	†2 16	----	4,280 71
Miscellaneous*	9	1,327	----	----	1,327	3,576 34	2 70	----	3,576 34
Totals	243	194,408	164,604	23,520	6,284	$398,339 09	$2 05	$4,725 20	$403,064 29

*Received from Los Angeles too late for classification. †Average fee in theatrical agencies figured on basis of one week's engagement.

TABLE No. 37. Summary of the Employment Agencies of the State, license year ending March 31, 1912.

(Tabulated by cities.)

City.	Number of agencies.	Number of positions furnished.	Male.	Female.	Not specified.	Amount of fees, exclusive of day work.	Amount of fees paid for day work.
San Francisco*	54	68,230	58,141	7,689	2,400	$145,797 13	
Los Angeles	54	66,462	52,346	10,459	3,657	151,169 47	
Oakland	12	5,827	3,754	2,073		9,673 35	$69 10
Totals	128	140,519	114,241	20,221	6,057	$306,639 95	$69 10
Alameda	2	42	42			$47 05	$24 90
Berkeley	2	227			227	9,568 74	
Fresno	7	1,768	1,743	25		2,105 15	
Pasadena	10	1,219	470	749		2,263 00	316 15
Sacramento	14	21,122	20,867	255		25,931 85	
San Diego	16	7,326	6,494	832		18,106 05	
San Jose	4	2,668	2,266	402		3,433 55	
Stockton	6	9,785	9,582	203		14,632 90	
Totals	61	44,157	44,157	2,464	227	$76,088 29	$341 05
Miscellaneous towns	54	9,732	8,899	833		15,610 85	4,315 05
Grand totals	243	194,408	164,604	23,520	6,284	$398,339 09	$4,725 20

*Tabulated for fiscal year ending June 30, 1911.

ORGANIZED LABOR.

The figures presented in this chapter do not represent all the labor organizations in the State of California; in fact, only 406 unions are reported out of a total of over 1,000. But as this is the first attempt to make an extended report on these organizations, we must be satisfied with the result, for it will serve as a foundation for future investigations. Furthermore, the unions reporting are representative, and include the majority of the organizations in the larger cities, while those failing to report were mostly located in the smaller towns.

We have adopted the following classification—which is used by the New York Bureau—as we believe there should be some attempt at uniformity in the compilation of statistics of this kind, so as to make them valuable for comparison.

CLASSIFICATION OF LABOR ORGANIZATIONS.

I. BUILDING, STONE WORKING, ETC.
  Stone working.
  Building and paving trades.
  Building and street labor.
II. TRANSPORTATION.
  Railways.
  Navigation.
  Teaming and cab driving.
  Freight handling.
  Telegraphs.
III. CLOTHING AND TEXTILES.
  Garments.
  Shirts, collars and laundry.
  Hats, caps and furs.
  Boots, shoes and gloves.
  Textiles.
IV. METALS, MACHINERY AND SHIPBUILDING.
  Iron and steel.
  Other metals.
  Shipbuilding.
V. PRINTING, BINDING, ETC.
VI. WOOD WORKING AND FURNITURE.
VII. FOOD AND LIQUORS.
  Food products.
  Beverages.
VIII. THEATERS AND MUSIC.
IX. TOBACCO.

- X. RESTAURANTS, TRADE, ETC.
  - Hotels and restaurants.
  - Barbering.
  - Retail trade.
- XI. PUBLIC EMPLOYMENT.
- XII. STATIONARY ENGINEMEN.
- XIII. MISCELLANEOUS.
  - Paper and paper goods.
  - Leather and leather goods.
  - Glass and glassware.
  - Cement and clay products.
  - Other distinct trades.
  - Mixed employment.

ORGANIZED

LABOR ORGANIZATIONS: SHOWING RATES OF

No.	Locality.	Trade and organization.
		I. Building, Stone Working, etc.
		(a) STONE WORKING.
		Granite Cutters—
1	Rocklin	Granite Cutters' International Association of America
2	San Francisco	Granite Cutters' International Association of America
3	San Jose	Granite Cutters' International Association of America
		Marble Workers—
4	San Francisco	International Marble Workers' Union, No. 38
5	San Francisco	International Marble Workers' Union, No. 44
		Paving Block Cutters—
6	Kenwood	Paving Cutters' Union of the United States and Canada, No. 120.
7	Santa Rosa	Paving Cutters' Union of the United States and Canada, No. 31.
		Quarrymen—
8	Sites	International Quarry Workers' Union, No. 46
		Stone Cutters and Sawyers—
9	San Francisco	Stone Cutters' Organization of North America
10	San Francisco	Stone Sawyers' Union, No. 1
		(b) BUILDING AND PAVING TRADES.
		Asbestos Workers (Pipe Coverers)—
11	San Francisco	International Association of Heat, Frost, General Insulators and Asbestos Workers of America, No. 16.
		Bricklayers and Masons—
12	Fresno	Bricklayers, Masons and Plasterers' International Union of America, No. 1.
13	Los Angeles	Bricklayers, Masons and Plasterers' International Union of America, No. 2.
14	Oakland	Bricklayers, Masons and Plasterers' International Union of America, No. 8.
15	Richmond	Bricklayers, Masons and Plasterers' International Union of America, No. 17.
16	Sacramento	Bricklayers, Masons and Plasterers' International Union of America, No. 9.
17	San Francisco	Bricklayers, Masons and Plasterers' International Union of America, No. 7.
18	San Jose	Bricklayers, Masons and Plasterers' International Union of America, No. 10.
19	Visalia	Bricklayers, Masons and Plasterers' International Union of America, No. 21.
		Carpenters and Joiners—
20	Alameda	United Brotherhood of Carpenters and Joiners of America, No. 194.
21	Bakersfield	Amalgamated Society of Carpenters, and Joiners, Branch 773.

LABOR.

WAGES AND HOURS OF LABOR ON JANUARY 1, 1912.

Occupation.	Sex.	Rates of wages.		Hours of labor.		No.
		Unit.	Rates.	On first 5 days.	Weekly.	
Cutters	Male	Day	$5 00	8	48	1
Cutters	Male	Hour	62½	8	44	2
Cutters	Male	Day	5 00	8	44	3
Bed rubbers	Male	Day	4 00	8	48	4
Cutters	Male	Day	4 50	8	48	
Polishers	Male	Day	3 50	8	48	
Setters	Male	Day	5 00	8	44	
Setters, helpers	Male	Day	3 00	8	44	5
Cutters	Male	Piece	Av.wk. 15 00	8	48	6
Cutters	Male	Piece	Per M. 35 00	9	50	7
Drillers	Male	Day	2 50	8	48	8
Engineers	Male	Day	3 50	8	48	
Laborers	Male	Day	3 00	8	48	
Quarrymen	Male	Day	2 25	8	48	
Cutters	Male	Hour	70	8	44	9
Cutters, apprentices	Male	Day	1 00	8	44	
Sawyers	Male	Day	4 00-5 00	9	54	10
Asbestos workers	Male	Day	4 00	8	48	11
Bricklayers	Male	Hour	87½	8	44	12
Bricklayers	Male	Hour	75	8	44	13
Bricklayers	Male	Hour	87½	8	44	14
Bricklayers	Male	Hour	87½	8	44	15
Bricklayers	Male	Hour	87½	8	44	16
Bricklayers	Male	Day	7 00	8	44	17
Bricklayers	Male	Hour	75	8	44	18
Bricklayers	Male	Day	7 00	8	48	19
Masons	Male	Day	7 00	8	48	
Plasterers	Male	Day	7 00	8	48	
Carpenters	Male	Day	5 00	8	44	20
Carpenters	Male	Day	4 50	8	48	21

LABOR ORGANIZATIONS: SHOWING RATES OF WAGES

No.	Locality.	Trade and organization.
		I. Building, Stone Working, etc.—Continued.
		(b) BUILDING AND PAVING TRADES—*Continued.*
		Carpenters and Joiners—Continued.
22	Berkeley	Amalgamated Society of Carpenters, and Joiners, Branch 809.
23	Berkeley	United Brotherhood of Carpenters and Joiners of America, No. 1158.
24	Berkeley	United Brotherhood of Carpenters and Joiners of America, No. 1689.
25	Chico	United Brotherhood of Carpenters and Joiners of America, No. 1888.
26	Coalinga	United Brotherhood of Carpenters and Joiners of America, No. 855.
27	Daly City	United Brotherhood of Carpenters and Joiners of America, No. 1913.
28	Eureka	United Brotherhood of Carpenters and Joiners of America, No. 1040.
29	Haywards	United Brotherhood of Carpenters and Joiners of America, No. 815.
30	Hollister	United Brotherhood of Carpenters and Joiners of America, No. 1139.
31	Los Angeles	United Brotherhood of Carpenters and Joiners of America, No. 158.
32	Los Gatos	United Brotherhood of Carpenters and Joiners of America, No. 844.
33	Maricopa	United Brotherhood of Carpenters and Joiners of America, No. 1856.
34	Marysville	United Brotherhood of Carpenters and Joiners of America, No. 1570.
35	Mountain View	United Brotherhood of Carpenters and Joiners of America, No. 1280.
36	Oakland	Amalgamated Society of Carpenters, and Joiners, Branch 810.
37	Oakland	United Brotherhood of Carpenters and Joiners of America, No. 1667.
38	Oroville	United Brotherhood of Carpenters and Joiners of America, No. 1376.
39	Pacific Grove	United Brotherhood of Carpenters and Joiners of America, No. 806.
40	Palo Alto	United Brotherhood of Carpenters and Joiners of America, No. 668.
41	Pasadena	United Brotherhood of Carpenters and Joiners of America, No. 1351.
42	Redlands	United Brotherhood of Carpenters and Joiners of America, No. 1343.
43	Richmond	United Brotherhood of Carpenters and Joiners of America, No. 642.
44	Riverside	United Brotherhood of Carpenters and Joiners of America, No. 235.
45	Roseville	United Brotherhood of Carpenters and Joiners of America, No. 1928.
46	San Diego	United Brotherhood of Carpenters and Joiners of America, No. 810.
47	San Diego	Amalgamated Society of Carpenters, and Joiners, Branch 924.
48	San Francisco	Amalgamated Society of Carpenters, and Joiners, Branch 1.
49	San Francisco	Amalgamated Society of Carpenters, and Joiners, Branch 2.
50	San Francisco	Amalgamated Society of Carpenters, and Joiners, Branch 3.
51	San Francisco	Amalgamated Society of Carpenters, and Joiners, Branch 4.

AND HOURS OF LABOR ON JANUARY 1, 1912—Continued.

Occupation.	Sex.	Rates of wages.		Hours of labor.		No.
		Unit.	Rates.	On first 5 days.	Weekly.	
Carpenters	Male	Day	$5 00	†	†	22
Carpenters	Male	Day	5 00	8	44	23
Carpenters	Male	Day	4 50	8	44	24
Carpenters	Male	Day	4 00	8	48	25
Carpenters	Male	Day	5 00	8	48	26
Carpenters	Male	Day	5 00	8	44	27
Carpenters	Male	Week	24 00	8	48	28
Carpenters	Male	Day	2 50–4 00	8	48	29
Carpenters	Male	Day	4 00	8	48	30
Carpenters	Male	Day	4 00	8	48	31
Carpenters	Male	Hour	60	8	44	32
Carpenters	Male	Day	5 00	8	48	33
Carpenters	Male	Day	4 00	8	48	34
Carpenters	Male	Day	4 80	8	44	35
Carpenters	Male	Hour	62½	8	44	36
Carpenters	Male	Hour	62½	8	44	37
Carpenters	Male	Hour	50	8	48	38
Carpenters Mill hands	Male Male	Day Day	4 00 4 00	8 8	48 48	39
Carpenters Mill hands	Male Male	* *	* *	8 8	48 48	40
Carpenters	Male	Day	4 00	8	44	41
Carpenters	Male	Day	4 00	8	48	42
Carpenters	Male	Day	4 50	8	48	43
Carpenters	Male	Day	4 00	8	48	44
Carpenters	Male	Hour	50	8	48	45
Carpenters	Male	Hour	50	8	44	46
Carpenters	Male	Hour	50	8	44	47
Carpenters	Male	Day	5 00	8	44	48
Carpenters	Male	Day	5 00	8	44	49
Carpenters	Male	Day	5 00	8	44	50
Carpenters	Male	Day	5 00	8	44	51

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*Rates not reported. †Hours not reported.

LABOR ORGANIZATIONS: SHOWING RATES OF WAGES

No.	Locality.	Trade and organization.
		I. Building, Stone Working, etc.—Continued.
		(b) BUILDING AND PAVING TRADES—*Continued.*
		Carpenters and Joiners—Continued.
52	San Francisco	Amalgamated Society of Carpenters, and Joiners, Branch 5.
53	San Francisco	United Brotherhood of Carpenters and Joiners of America, No. 22.
54	San Francisco	United Brotherhood of Carpenters and Joiners of America, No. 95.
55	San Francisco	United Brotherhood of Carpenters and Joiners of America, No. 304.
56	San Francisco	United Brotherhood of Carpenters and Joiners of America, No. 766.
57	San Francisco	United Brotherhood of Carpenters and Joiners of America, No. 483.
58	San Francisco	United Brotherhood of Carpenters and Joiners of America, No. 616.
59	San Francisco	United Brotherhood of Carpenters and Joiners of America, No. 1082.
60	San Francisco	United Brotherhood of Carpenters and Joiners of America, No. 1640.
61	Sacramento	United Brotherhood of Carpenters and Joiners of America, No. 586.
62	San Jose	United Brotherhood of Carpenters and Joiners of America, No. 316.
63	Watsonville	United Brotherhood of Carpenters and Joiners of America, No. 771.
		Cement Workers—
64	Bakersfield	American Brotherhood of Cement Workers, No. 130
65	Los Angeles	American Brotherhood of Cement Workers, No. 3
66	Oakland	American Brotherhood of Cement Workers, No. 19
67	Richmond	American Brotherhood of Cement Workers, No. 138
68	Sacramento	American Brotherhood of Cement Workers, No. 12
69	San Francisco	American Brotherhood of Cement Workers, No. 1
70	San Jose	American Brotherhood of Cement Workers, No. 5
71	Vallejo	American Brotherhood of Cement Workers, No. 160
		Dredgemen and Steam Shovel Men—
72	San Francisco	Associated Union of Steam Shovel Men, No. 2
73	San Francisco	International Brotherhood of Steam Shovel and Dredgemen, No. 29.
		Electrical Workers—
74	Fresno	International Brotherhood of Electrical Workers of America, No. 11.
75	Los Angeles	International Brotherhood of Electrical Workers of America, No. 61.

AND HOURS OF LABOR ON JANUARY 1, 1912—Continued.

Occupation.	Sex.	Rates of wages.		Hours of labor.		No.
		Unit.	Rates.	On first 5 days.	Weekly.	
Carpenters	Male	Day	$5 00	8	44	52
Carpenters	Male	Day	5 00	8	44	53
Carpenters	Male	Day	5 00	8	44	54
Carpenters	Male	Day	5 00	8	44	55
Millwrights	Male	Day	5 00	8	44	56
Carpenters	Male	Day	5 00	8	44	57
Foremen carpenters	Male	Day	6 00	8	44	
Stairbuilders	Male	Day	5 50	8	44	58
Carpenters	Male	Day	5 00	8	44	59
Carpenters	Male	Hour	62½	8	44	60
Carpenters	Male	Day	5 00	8	44	61
Carpenters	Male	Day	4 40	8	44	62
Mill hands	Male	Day	3 50–4 00	8	48	
Carpenters	Male	Day	4 00	8	48	63
Finishers	Male	Day	5 00	8	48	64
Finishers, helpers	Male	Day	4 00	8	48	
Laborers	Male	Day	3 00	8	48	
Finishers	Male	Day	5 00	8	48	65
Laborers	Male	Day	3 00	8	48	
Finishers	Male	Hour	75	8	44	66
Finishers, helpers	Male	Hour	66½	8	44	
Laborers	Male	Hour	50	8	44	
Finishers	Male	Day	5 00	8	48	67
Finishers, helpers	Male	Day	4 00	8	48	
Laborers	Male	Day	3 00	8	48	
Finishers	Male	Day	5 00	8	44	68
Laborers	Male	Day	3 60	8	44	
Finishers	Male	Day	6 00	8	44	69
Finishers, helpers	Male	Day	5 00	8	44	
Laborers	Male	Day	4 00	8	44	
Finishers	Male	Day	5 00	8	44	70
Laborers	Male	Day	3 50	8	44	
Finishers	Male	Day	6 00	8	48	71
Laborers	Male	Day	3 50	8	48	
Cranesmen	Male	Month	$110 and b'rd	10	60	72
Engineers	Male	Month	150 and b'rd	10	60	
Firemen	Male	Month	75 and b'rd	10	60	
Cranesmen	Male	Month	$135 00	9	54	73
Engineers	Male	Month	175 00	9	54	
Firemen	Male	Month	100 00	9	54	
Cable splicers	Male	Day	4 50	8	48	74
Linemen	Male	Day	3 75	8	48	
Cable splicers	Male	Day	4 50	8	48	75
Linemen	Male	Day	3 50	8–9	48–54	

LABOR ORGANIZATIONS: SHOWING RATES OF WAGES

No.	Locality.	Trade and organization.
		I. Building, Stone Working, etc.—Continued.
		(b) BUILDING AND PAVING TRADES—*Continued.*
		Electrical Workers—Continued.
76	Los Angeles	International Brotherhood of Electrical Workers of America, No. 370.
77	Pasadena	International Brotherhood of Electrical Workers of America, No. 560.
78	San Francisco	International Brotherhood of Electrical Workers of America, No. 6.
79	San Francisco	International Brotherhood of Electrical Workers of America, No. 151.
80	San Francisco	International Brotherhood of Electrical Workers of America, No. 404.
81	San Francisco	International Brotherhood of Electrical Workers of America, No. 537.
82	San Jose	International Brotherhood of Electrical Workers of America, No. 250.
83	San Rafael	International Brotherhood of Electrical Workers of America, No. 614.
84	Santa Barbara	International Brotherhood of Electrical Workers of America, No. 451.
85	Vallejo	International Brotherhood of Electrical Workers of America, No. 184.
		Elevator Constructors—
86	San Francisco	International Union of Elevator Constructors, No. 8
		Engineers, Hoisting and Portable—
87	San Francisco	International Union of Steam Engineers, No. 59
		House Movers—
88	Oakland	House Movers' Union, Journeymen, No. 14127
89	Sacramento	House Raisers and Movers, No. 12314
90	San Francisco	House Movers' Union, Journeymen, No. 14084
		Housesmiths and Bridgemen—
91	Los Angeles	International Association of Bridge and Structural Iron Workers, No. 51.
92	San Francisco	International Association of Bridge and Structural Iron Workers, No. 31.
		Lathers—
93	Fresno	International Union of Wood, Wire and Metal Lathers, No. 83.

AND HOURS OF LABOR ON JANUARY 1, 1912—Continued.

Occupation.	Sex.	Rates of wages.		Hours of labor.		No.
		Unit.	Rates.	On first 5 days.	Weekly.	
Telephone men	Male	Day	$3 75	8	48	76
Inside wiremen	Male	Day	3 75	8	44	77
Inside wiremen	Male	Day	5 00	8	44	78
Inside wiremen, helpers	Male	Day	2 75	8	44	
Electrical workers	Male	Day	3 50–4 00	8	44	79
Inside wiremen	Male	Day	5 00	8	44	
Linemen	Male	Day	3 75	8	44	
Fixture hangers	Male	Day	4 50	8	44	80
Cable splicers—						81
(a) Electric light:						
Journeymen	Male	Day	5 25	8	44	
Apprentices	Male	Day	4 25	8	44	
Helpers	Male	Day	3 00	8	44	
(b) Electric railway:						
Journeymen	Male	Day	4 50	8	48	
Apprentices	Male	Day	2 50–3 75	8	48	
Helpers	Male	Day	2 25	8	48	
(c) Telephone:						
Journeymen	Male	Day	5 00	8	48	
Helpers	Male	Day	2 25	8	48	
Fixture men	Male	Day	4 00–5 00	8	48	82
Inside wiremen	Male	Day	5 00	8	44	
Linemen, light and power	Male	Day	4 25	8–9	44–48	
Linemen, electric railway	Male	Day	4 00	8	48	
Station men	Male	Month	70 00–100 00	8	56	
Telephone men	Male	Day	3 75	8–9	48–54	
Telephone cable splicers	Male	Day	4 50	8	48	
Electrical workers	Male	Day	5 00	8	44	83
Cable splicers	Male	Day	4 50	8	48	84
Inside wiremen	Male	Day	3 50	8	48	
Linemen, electric light	Male	Day	3 50	9	54	
Linemen, telephone	Male	Day	3 75	8	48	
Switchboard men	Male	Day	3 75	8	48	
Inside wiremen	Male	Day	4 00–4 50	8	48	85
Linemen, construction	Male	Day	4 25	8	48	
Linemen, telephone	Male	Day	4 25	8–9	48–54	
Shopmen	Male	Day	4 32	8	48	
Station men	Male	Day	70 00–100 00	8	48	
Elevator constructors	Male	Hour	62½	8	48	86
Elevator constructors, helpers	Male	Hour	37½	8	48	
Engineers	Male	Day	6 00	8	48	87
House movers	Male	Day	5 00	8	44	88
House raisers and movers	Male	*	*	8	44	89
House movers	Male	Day	5 00	8	44	90
Structural iron workers	Male	Day	4 00	8	44	91
Machinery movers	Male	Day	5 00	8	44	92
Stone derrick men	Male	Day	4 50	8	44	
Structural iron workers	Male	Day	6 00	8	44	
Lathers	Male	Piece	Per M., 3 00	8	44	93

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*Rates not reported.

LABOR ORGANIZATIONS: SHOWING RATES OF WAGES

No.	Locality.	Trade and organization.
		I. Building, Stone Working, etc.—Continued.
		(b) BUILDING AND PAVING TRADES—Continued.
		Lathers—Continued.
94	Long Beach	International Union of Wood, Wire and Metal Lathers, No. 172.
95	Oakland	International Union of Wood, Wire and Metal Lathers, No. 8.
96	Richmond	International Union of Wood, Wire and Metal Lathers, No. 343.
97	San Francisco	International Union of Wood, Wire and Metal Lathers, No. 65.
98	San Rafael	International Union of Wood, Wire and Metal Lathers, No. 268.
		Painters and Decorators—
99	Los Angeles	Brotherhood of Painters, Decorators and Paperhangers of America, No. 267.
100	Los Angeles	Brotherhood of Painters, Decorators and Paperhangers of America, No. 350.
101	Los Angeles	Brotherhood of Painters, Decorators and Paperhangers of America, No. 831.
102	Oakland	Brotherhood of Painters, Decorators and Paperhangers of America, No. 127.
103	Palo Alto	Brotherhood of Painters, Decorators and Paperhangers of America, No. 388.
104	Riverside	Brotherhood of Painters, Decorators and Paperhangers of America, No. 780.
105	San Francisco	Brotherhood of Painters, Decorators and Paperhangers of America, No. 19.
106	San Francisco	Brotherhood of Painters, Decorators and Paperhangers of America, No. 510.
107	San Francisco	Brotherhood of Painters, Decorators and Paperhangers of America, Painters' Auxiliary, Apprentices.
108	San Jose	Brotherhood of Painters, Decorators and Paperhangers of America, No. 507.
109	Santa Barbara	Brotherhood of Painters, Decorators and Paperhangers of America, No. 715.
110	Stockton	Brotherhood of Painters, Decorators and Paperhangers of America, No. 274.
		Pavers and Rammermen—
111	San Francisco	International Union of Pavers, Rammermen, Flag Layers, Bridge and Curb Setters, No. 18.
112	San Francisco	International Union of Pavers, Rammermen, Flag Layers, Bridge and Curb Setters, No. 26.
		Plasterers—
113	Modesto	Operative Plasterers' International Association, No. 429
114	Pasadena	Operative Plasterers' International Association, No. 194
115	Pomona	Operative Plasterers' International Association, No. 468
116	San Francisco	Operative Plasterers' International Association, No. 66
117	San Francisco	Operative Plasterers' International Association, No. 455
118	San Francisco	Casters and Modelmakers, No. 1

AND HOURS OF LABOR ON JANUARY 1, 1912—Continued.

Occupation.	Sex.	Rates of wages.		Hours of labor.		No.
		Unit.	Rates.	On first 5 days.	Weekly.	
Lathers	Male	Piece	Av. per wk. $12 00-$20 00	8	44	94
Lathers	Male	Day	4 50-5 50	8	44	95
Lathers	Male	Day	5 50	8	44	96
Lathers	Male	Day	6 00	8	44	97
Lathers	Male	Piece	Per M., 4 00	8	44	98
Painters and decorators	Male	Day	3 50	8	48	99
Painters and paperhangers	Male	Day	3 50	8	48	100
Pictorial painters	Male	Day	6 00	8	44	101
Sign painters	Male	Day	5 00	8	48	
Painters, decorators, etc.	Male	Day	4 50	8	44	102
Painters	Male	Day	4 00	8	44	103
Paperhangers	Male	Day	4 50	8	44	
Painters	Male	Day	3 50	8	48	104
Paperhangers	Male	Day	3 50	8	48	
Decorators	Male	Day	4 50	8	44	105
Painters	Male	Day	4 50	8	44	
Paperhangers	Male	Day	4 50	8	44	
Helpers, general	Male	Day	4 00	8	44	106
Pictorial painters	Male	Day	6 50	8	44	
Show card writers	Male	Day	5 50	8	44	
Sign hangers	Male	Day	4 00	8	44	
Sign writers	Male	Day	5 50	8	44	
Apprentices	Male	Day	1 00-4 00	8	44	107
Grainers	Male	Day	4 50	8	44	108
Painters	Male	Day	4 50	8	44	
Paperhangers	Male	Day	6 00	8	44	
Painters	Male	Day	3 50	8	48	109
Paperhangers	Male	Day	3 50	8	48	
Painters	Male	Hour	56¼	8	44	110
Paperhangers	Male	Hour	56¼	8	44	
Pavers	Male	Day	6 00	8	48	111
Pavers	Male	Day	5 00	8	48	112
Plasterers	Male	Day	6 00	8	48	113
Plasterers	Male	Day	5 50	8	44	114
Plasterers	Male	Day	5 00	8	48	115
Plasterers	Male	Day	7 00	8	44	116
Plasterers	Male	Day	5 50	8	44	117
Plaster casting makers	Male	Day	4 00	8	44	118

LABOR ORGANIZATIONS: SHOWING RATES OF WAGES

No.	Locality.	Trade and organization.
		I. Building, Stone Working, etc.—Continued.
		(b) BUILDING AND PAVING TRADES—Continued.
		Plumbers, Gas and Steam Fitters—
119	Fresno	United Association of Journeymen Plumbers, Gas Fitters, Steam Fitters and Steam Fitters' Helpers of the United States and Canada, No. 246.
120	Los Angeles	United Association of Journeymen Plumbers, Gas Fitter, Steam Fitters and Steam Fitters' Helpers of the United States and Canada, No. 78.
121	Monterey	United Association of Journeymen Plumbers, Gas Fitter, Steam Fitters and Steam Fitters' Helpers of the United States and Canada, No. 62.
122	Pasadena	United Association of Journeymen Plumbers, Gas Fitter, Steam Fitters and Steam Fitters' Helpers of the United States and Canada, No. 280.
123	Redlands	United Association of Journeymen Plumbers, Gas Fitter, Steam Fitters and Steam Fitters' Helpers of the United States and Canada, No. 364.
124	Richmond	United Association of Journeymen Plumbers, Gas Fitter, Steam Fitters and Steam Fitters' Helpers of the United States and Canada, No. 436.
125	Sacramento	United Association of Journeymen Plumbers, Gas Fitter, Steam Fitters and Steam Fitters' Helpers of the United States and Canada, No. 447.
126	San Francisco	United Association of Journeymen Plumbers, Gas Fitter, Steam Fitters and Steam Fitters' Helpers of the United States and Canada, No. 442.
127	San Francisco	United Association of Journeymen Plumbers, Gas Fitter, Steam Fitters and Steam Fitters' Helpers of the United States and Canada, No. 509.
128	San Jose	United Association of Journeymen Plumbers, Gas Fitter, Steam Fitters and Steam Fitters' Helpers of the United States and Canada, No. 393.
129	Santa Monica	United Association of Journeymen Plumbers, Gas Fitter, Steam Fitters and Steam Fitters' Helpers of the United States and Canada, No. 545.
		Roofers, Composition—
130	Los Angeles	International Brotherhood of Composition Roofers, Damp and Waterproof Workers of the United States and Canada, No. 21.
131	San Francisco	International Brotherhood of Composition Roofers, Damp and Waterproof Workers of the United States and Canada, No. 25.
		Roofers, Slate and Tile—
132	San Francisco	International Slate and Tile Workers of America, No. 8
		Sheet Metal Workers—
133	Bakersfield	Amalgamated Sheet Metal Workers' International Alliance, No. 369.
134	Los Angeles	Amalgamated Sheet Metal Workers' International Alliance, No. 108.
135	Los Angeles	Amalgamated Sheet Metal Workers' International Alliance, No. 340.
136	Sacramento	Amalgamated Sheet Metal Workers' International Alliance, No. 162.
137	San Francisco	Amalgamated Sheet Metal Workers' International Alliance, No. 104.

AND HOURS OF LABOR ON JANUARY 1, 1912—Continued.

Occupation.	Sex.	Rates of wages.		Hours of labor.		No.
		Unit.	Rates.	On first 5 days.	Weekly.	
Plumbers	Male	Day	$5 50	8	44	119
Plumbers, gas and steamfitters	Male	Day	4 50	8	48	120
Plumbers, gas and steamfitters	Male	Day	4 50	8	48	121
Plumbers, gas and steamfitters	Male	Day	5 00	8	44	122
Plumbers, gas and steamfitters, apprentices	Male	Day	4 00	8	44	
Plumbers	Male	Day	5 00	8	48	123
Plumbers	Male	Hour	50	8	48	124
Steamfitters	Male	Hour	50	8	48	
Steamfitters, helpers	Male	Hour	34 5-9 cents	8	48	
Plumbers, gas and steamfitters	Male	Day	$5 50	8	44	125
Plumbers, apprentices	Male	Day	4 00	8	44	
Steamfitters, helpers	Male	Day	3 00	8	44	
Plumbers, gas and sprinkler fitters	Male	Day	6 00	8	44	126
Steamfitters	Male	Day	6 00	8	44	127
Plumbers, gas and steamfitters	Male	Day	6 00	8	44	128
Plumbers, gas and steamfitters	Male	Day	4 50	8	48	129
Roofers	Male	Day	3 00	8	48	130
Roofers, helpers	Male	Day	2 25	8	48	
Roofers	Male	Day	6 00	8	48	131
Roofers	Male	Day	5 00	8	44	132
Sheet metal workers	Male	Day	4 50	8	48	133
Sheet metal workers	Male	Hour	56¼	8	44	134
Sheet metal workers	Male	Hour	37½–40	9	54	135
Sheet metal workers, helpers	Male	Hour	27½–30	9	54	
Sheet metal workers	Male	Hour	62½	8	44	136
Sheet metal workers	Male	Day	5 00	8	44	137

LABOR ORGANIZATIONS: SHOWING RATES OF WAGES

No.	Locality.	Trade and organization.
		I. Building, Stone Working, etc.—Continued.
		(b) BUILDING AND PAVING TRADES—Continued.
		Shinglers—
138	Los Angeles	Los Angeles Shinglers
		Steam and Hot Water Fitters—
139	San Francisco	International Association of Steam, Hot Water and Power Pipe Fitters and Helpers of America, No. 46.
140	San Francisco	Gas Appliance and Stove Fitters, No. 12432
		Tilelayers—
141	Los Angeles	International Ceramic, Mosaic and Encaustic Tile Layers and Helpers' Union, No. 24.
142	San Francisco	International Ceramic, Mosaic and Encaustic Tile Layers and Helpers Union, No. 70.
143	San Francisco	International Ceramic, Mosaic and Encaustic Tile Layers and Helpers' Union, No. 48.
		Varnishers and Polishers—
144	San Francisco	Brotherhood of Painters, Decorators and Paperhangers of America, No. 134.
		(c) BUILDING AND STREET LABOR.
		Bricklayers, Masons and Plasterers' Laborers—
145	Los Angeles	International Hod Carriers and Building Laborers' Union of America, No. 300.
146	San Francisco	Laborers' Protective Benevolent Association of Hod Carriers.
147	San Rafael	International Hod Carriers and Building Laborers' Union of America, No. 291.
148	Santa Rosa	International Hod Carriers and Building Laborers' Union of America, No. 139.
149	Stockton	International Hod Carriers and Building Laborers' Union of America, No. 73.
		General Building and Street Laborers—
150	Los Angeles	Building Laborers' International Protective Union
151	San Francisco	United Laborers' Union of San Francisco, No. 12992
		II. Transportation.
		(a) RAILWAYS.
		Car Workers—
152	Los Angeles	Brotherhood of Railway Carmen of America, No. 410
153	Richmond	Brotherhood of Railway Carmen of America, No. 125
154	San Bernardino and vicinity.	Brotherhood of Railway Carmen of America, No. 128
		Conductors—
155	Sacramento	Order of Railway Conductors of America, No. 195
156	San Francisco	Order of Railway Conductors of America, No. 115
157	San Rafael	Order of Railway Conductors of America, No. 532
158	Stockton	Order of Railway Conductors of America, No. 567

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§In railroad train service wages are usually paid by the mile or trip and working certain number of miles or trips shall be regarded as a "day's work." The word being equivalent to the number of miles or trips ordinarily made in a calendar day or

‖100 miles or 10 hours.

AND HOURS OF LABOR ON JANUARY 1, 1912—Continued.

Occupation.	Sex.	Rates of wages.		Hours of labor.		No.
		Unit.	Rates.	On first 5 days.	Weekly.	
Shinglers	Male	Piece	Av. per wk. $15 00-$25 00	8	48	138
Steamfitters	Male	Day	4 00	8	48	139
Steamfitters, helpers	Male	Day	3 00	8	48	
Fitters	Male	Day	4 00	8	48	140
Tilelayers	Male	Day	4 50	8	48	141
Tilelayers, helpers	Male	Day	2 25	8	48	
Tilelayers, helpers	Male	Day	2 50	8	44	142
Tilelayers	Male	Day	6 00	8	44	143
Varnishers	Male	Day	4 00	8	44	144
Brick wheelers	Male	Day	2 50	8	44	145
Hod carriers	Male	Day	4 50	8	44	
Mortar and hod men	Male	Day	3 00	8	44	
Plasterers	Male	Day	6 00	8	44	
Bricklayers and plasterers, helpers	Male	Day	5 00	8	44	146
Hod carriers	Male	Day	4 00	8	44	
Hod carriers	Male	Day	4 50-5 00	8	44	147
Hod carriers	Male	Day	4 00	8	48	148
Hod carriers	Male	Day	4 00	8	44	149
Laborers	Male	Day	2 50-4 50	8	48	150
Carpenters, helpers	Male	Day	2 50	8	48	151
Excavators	Male	Day	2 50	8	48	
Street, sewer and park laborers	Male	Day	3 00	8	48	
Car workers	Male	Hour	20-30	9	63	152
Car workers	Male	Hour	25-29	8	48	153
Car workers	Male	Hour	23½-31½	9	56	154
Conductors, freight	Male	Month	130 90-139 15	§	§	155
Conductors, passenger	Male	Month	134 20-165 00	§	§	
Conductors, freight	Male	Month	139 50	§	§	156
Conductors, passenger	Male	Month	152 90-165 00	§	§	
Conductors	Male	§	§	§	§	157
Conductors, freight	Male	‖	4 40	§	§	158
Conductors, passenger	Male	Month	165 00	§	§	

time is either not specified at all or is fixed only to the extent of a stipulation that a "day" in connection with these trades, therefore, is used only in a technical sense, stipulated as a "day's" work by agreement.

LABOR ORGANIZATIONS: SHOWING RATES OF WAGES

No.	Locality.	Trade and organization.
		II. Transportation—Continued.
		(a) RAILWAYS—*Continued.*
		Engineers, Locomotive—
159	Bakersfield and vicinity	International Brotherhood of Locomotive Engineers, No. 126.
160	Los Angeles	International Brotherhood of Locomotive Engineers, No. 5.
161	Sacramento	International Brotherhood of Locomotive Engineers, No. 110.
162	San Bernardino	International Brotherhood of Locomotive Engineers, No. 398.
		Firemen and Engineers, Locomotive—
163	Dunsmuir	Brotherhood of Locomotive Firemen and Enginemen, No. 312.
164	Eureka	Brotherhood of Locomotive Firemen and Enginemen, No. 239.
165	Oakland	Brotherhood of Locomotive Firemen and Enginemen, No. 143.
166	Roseville	Brotherhood of Locomotive Firemen and Enginemen, No. 58.
		Street Railway Employees—
167	Oakland	Amalgamated Association of Street and Electric Railway Employees of America, No. 192.
168	Sacramento	Amalgamated Association of Street and Electric Railway Employees of America, No. 256.
169	San Francisco	Amalgamated Association of Street and Electric Railway Employees of America, No. 518.
		Switchmen—
170	Oakland	Switchmen's Union of North America, No. 158
		Trainmen, Road and Yard—
171	Bakersfield	Brotherhood of Railroad Trainmen, No. 73
172	Fresno	Brotherhood of Railroad Trainmen, No. 420
173	Los Angeles	Brotherhood of Railroad Trainmen, No. 808
174	Needles	Brotherhood of Railroad Trainmen, No. 430
175	San Francisco	Brotherhood of Railroad Trainmen, No. 198
176	San Francisco	Brotherhood of Railroad Trainmen, No. 846
177	Tracy	Brotherhood of Railroad Trainmen, No. 849

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§In railroad train service wages are usually paid by the mile or trip and working
certain number of miles or trips shall be regarded as a "day's work." The word "day"
equivalent to the number of miles or trips ordinarily made in a calendar day or

‡Hours irregular.

AND HOURS OF LABOR ON JANUARY 1, 1912—Continued.

Occupation.	Sex.	Rates of wages.		Hours of labor.		No.
		Unit.	Rates.	On first 5 days.	Weekly.	
Engineers	Male	§	§	§	§	159
Engineers	Male	§	§	§	§	160
Engineers	Male	§	§	§	§	161
Engineers	Male	§	§	§	§	162
Engineers	Male	Month	$175 00	§	§	163
Firemen	Male	Month	125 00	§	§	
Engineers	Male	§	§	§	§	164
Firemen	Male	§	§	§	§	
Firemen	Male	§	§	§	§	165
Firemen	Male	§	§	§	§	166
Motormen and conductors	Male	Hour	30–42	10	60	167
Motormen and conductors	Male	Hour	29–32	9–10	65–70	168
Motormen and conductors	Male	No scale of hours or wages.				169
Switchmen	Male	Hour	37	10	70	170
Yardforemen	Male	Hour	40	10	70	
Trainmen	Male	Month	110 00 av.	10	70	171
Brakemen, freight	Male	Month	104 60 av.	‡	‡	172
Brakemen, passenger	Male	Month	99 50 av.	‡	‡	
Conductors, freight	Male	Month	131 90 av.	‡	‡	
Conductors, passenger	Male	Month	146 30–165 00	‡	‡	
Switchmen	Male	Hour	37–39	10	70	173
Yardforemen	Male	Hour	40–42	10	70	
Yardmasters	Male	Month	140 00–170 00	10	70	
Brakemen	Male	100 mi.	3 70	not over 16		174
Conductors	Male	100 mi.	4 86	not over 16		
Switchmen	Male	Hour	37–42	not over 16		
Yardmasters	Male	Month	150 00	not over 16		
Switchmen	Male	Hour	37–39	10	70	175
Yardforemen	Male	Hour	40–42	10	70	
Yardmasters	Male	Month	140 00–145 00	10	70	
Brakemen, freight	Male	Month	92 45	No scale		176
Brakemen, passenger	Male	Month	104 00	No scale		
Baggagemen	Male	Month	106 75	No scale		
Brakemen, freight	Male	Month	104 05	not over 16		177
Brakemen, passenger	Male	Month	92 95	not over 16		
Conductors	Male	Month	131 90–165 00	not over 16		
Yardforemen	Male	Hour	37–39	not over 16		
Switchmen	Male	Hour	34–36	not over 16		

time is either not specified at all or is fixed only to the extent of a stipulation that a in connection with these trades, therefore, is used only in a technical sense, being stipulated as a "day's" work by agreement.

LABOR ORGANIZATIONS: SHOWING RATES OF WAGES

No.	Locality.	Trade and organization.
		II. Transportation—Continued.
		(b) NAVIGATION.
		Cooks and Stewards, Marine—
178	San Francisco	International Seamen's Union of America
		Engineers, Marine—
179	San Francisco	Marine Engineers' Beneficial Association, No. 35
180	San Francisco	International Union of Steam Engineers, No. 471
		Masters, Mates and Pilots—
181	San Francisco	American Association of Masters, Mates and Pilots, No. 40.
182	San Francisco	California Harbor Masters, Mates and Pilots of Ocean Vessels.
		Seamen—
183	San Francisco	International Seamen's Union of America
184	San Francisco	Bay and River Steamboatmen's Union
		(c) TEAMING AND CAB DRIVING.
		Building Material Drivers—
185	Sacramento	International Brotherhood of Teamsters, Chauffeurs, Stablemen and Helpers.
186	San Francisco	International Brotherhood of Teamsters, Chauffeurs, Stablemen and Helpers, No. 216.
		Cabmen and Coach Drivers—
187	Los Angeles	International Brotherhood of Teamsters, Chauffeurs, Stablemen and Helpers, No. 208.
188	San Francisco	International Brotherhood of Teamsters, Chauffeurs, Stablemen and Helpers, No. 265.
189	San Francisco	International Brotherhood of Teamsters, Chauffeurs, Stablemen and Helpers, No. 238.
190	San Francisco	International Brotherhood of Teamsters, Chauffeurs, Stablemen and Helpers, No. 404.
		Delivery Wagon Drivers—
191	Sacramento	Bakery and Confectionery Workers' International Union of America.
192	San Francisco	Bakery and Confectionery Workers' International Union of America.
193	San Francisco	International Brotherhood of Teamsters, Chauffeurs, Stablemen and Helpers, No. 278.
		Ice Handlers—
194	San Francisco	International Brotherhood of Teamsters, Chauffeurs, Stablemen and Helpers, No. 519.
		Milk Wagon Drivers—
195	Oakland	International Brotherhood of Teamsters, Chauffeurs, Stablemen and Helpers, No. 298.
196	San Francisco	International Brotherhood of Teamsters, Chauffeurs, Stablemen and Helpers, No. 226.

AND HOURS OF LABOR ON JANUARY 1, 1912—Continued.

Occupation.	Sex.	Rates of wages.		Hours of labor.		No.
		Unit.	Rates.	On first 5 days.	Weekly.	
Cooks	Male	Month	$75 00	14	‡	178
Cooks, second	Male	Month	35 00–60 00	14	‡	
Waiters	Male	Month	30 00	10 at sea 9 in port		
Engineers, chief	Male	Month	130 00–185 00	8–12	‡	179
Engineers, assistant	Male	Month	70 00–135 00	8–12	‡	
Engineers, gasoline	Male			No scale		180
Earnings run from 12 00 week to 120 00 month						
Masters, bay and river	Male	Month	150 00–190 00	12	84	181
Mates, bay and river	Male	Month	85 00– 95 00	12	84	
Pilots, bay and river	Male	Month	110 00–125 00	12	84	
Masters, mates and pilots	Male	*	*	No scale		182
Seamen, coastwise steam	Male	Month	50 00–55 00	9	54	183
Seamen, coastwise sail	Male	Month	45 00–50 00	9	54	
Seamen, offshore steam	Male	Month	40 00–50 00	9	54	
Seamen, offshore sail	Male	Month	30 00–40 00	9	54	
Firemen	Male	Month	55 00–60 00	12	72	184
Deckhands	Male	Month	50 00–55 00	9–12	54 av.	
Lumber handlers & teamsters	Male	Day	2 50–3 00	9	54	185
Sand and brick teamsters	Male	Day	3 00–3 25	10	60	186
Drivers	Male	No wage scale		12	72	187
Stablemen and hostlers	Male	No wage scale		12	84	
Chauffeurs	Male	No wage scale		12	72	
Chauffeurs	Male	No wage scale		12	84	188
Garage help	Male	Day	2 50–3 50	9	63	
Stablemen and hostlers	Male	Day	3 00	11	77	189
Stablemen and hostlers	Male	Week	21 00	12	84	190
Drivers	Male	Week	18 00	10 av.	62 av.	191
Drivers	Male	Week	21 00	10	62	192
Drivers	Male	Week	15 00–21 00	10	60	193
Ice handlers	Male	Month	95 00	10–11	60–66	194
Ice handlers, helpers	Male	Day	3 00	10–11	60–66	
Drivers	Male	Month	90 00	9	54	195
Drivers	Male	Month	75 00–100 00	9	54	196

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*Rates not reported. ‡Hours irregular.

No.	Locality.	Trade and organization.
		II. Transportation.—Continued.
		(c) TEAMING AND CAB DRIVING—Continued.
		Team Drivers—
197	Oakland	International Brotherhood of Teamsters, Chauffeurs, Stablemen and Helpers, No. 70.
198	San Diego	International Brotherhood of Teamsters, Chauffeurs, Stablemen and Helpers, No. 195.
199	San Francisco	International Brotherhood of Teamsters, Chauffeurs, Stablemen and Helpers, No. 85.
200	San Rafael	International Brotherhood of Teamsters, Chauffeurs, Stablemen and Helpers, No. 694.
		(d) FREIGHT HANDLING.
		Furniture Handlers—
201	San Francisco	Furniture Handlers' Union, No. 12993
		Longshoremen—
202	San Pedro	International Longshoremen's Association, No. 38-18
		Riggers and Stevedores—
203	San Francisco	Riggers and Stevedores' Union
		Transfer Messengers—
204	San Francisco	Baggage Messengers and Transferers' Union, No. 10167
		(e) TELEGRAPHS.
		Telegraphers, Commercial—
205	Los Angeles	Order of Railway Telegraphers, Division 111
		III. Clothing and Textiles.
		(a) GARMENTS.
		Cloak and Suit Makers—
206	San Francisco	International Ladies Garment Workers' Union, No. 8
207	San Francisco	Ladies Tailors' Union
		Shirt and Overall Workers—
208	San Francisco	United Garment Workers of America, No. 45
209	San Francisco	United Garment Workers of America, No. 131
		Tailors—
210	Los Angeles	Journeymen Tailors' Union of America, No. 81
211	Oakland	Journeymen Tailors' Union of America, No. 266
212	San Diego	Journeymen Tailors' Union of America, No. 277
213	San Francisco	Journeymen Tailors' Union of America, No. 2
214	San Francisco	Journeymen Tailors' Protective Union
		(b) LAUNDRY WORKERS.
		Laundry Workers—
215	Bakersfield	Laundry Workers' International Union, No. 175
216	San Francisco	Laundry Workers' International Union, No. 26
217	San Jose	Laundry Workers' International Union, No. 33

Occupation.	Sex.	Rates of wages.		Hours of labor.		No.
		Unit.	Rates.	On first 5 days.	Weekly.	
Teamsters	Male	Day	$3 00–3 50	11	66	197
Teamsters, helpers	Male	Day	3 00	10	60	
Teamsters	Male	Day	2 50	9	54	198
Teamsters, one horse	Male	Day	2 00–3 00	10	60	199
Teamsters, two horses	Male	Day	2 50–3 50	10	60	
Teamsters, four horses	Male	Day	3 50–4 00	10	60	
Teamsters, six horses	Male	Day	4 00–4 50	10	60	
Teamsters	Male	Day	2 75–4 50	8–9	48–54	200
Furniture handlers	Male	Day	3 00	8	48	201
Longshoremen	Male	Hour	50	‡	‡	202
Stevedores and coal handlers	Male	Hour	50–55	‡	‡	203
Baggage messengers	Male	Week	20 00	12	‡	204
Telegraphers	M. & F.	Month	75 00	†	†	205
Makers	Male	Week	16 00–28 00 av.	8	48	206
Makers	Female	Week	16 00–20 00 av.	8	48	
Finishers	Female	Week	5 00–15 00 av.	8	48	
Tailors	Male	Week	24 00	8	48	207
Cutters	Male	Day	3 75	8¾	48	208
Shirt and overall workers	Male	Piece	*	†	48	209
Tailors	Male	Piece	12 00–20 00 Av. per wk.	8–9	48–54	210
Tailors	Male	Piece	*	No scale		211
Tailors	M. & F.	Piece	*	No scale		212
Tailors	Male	Week	18 00–25 00	8	48	213
Tailors	Female	Week	10 50–18 00	8	48	
Tailors	Male	Piece	22 00–24 00 Av. per wk.	No scale		214
Laundry workers	Male	Week	12 00–18 00	9	54	215
Laundry workers	Female	Week	8 00–15 00	8	48	
Washers	Male	Week	15 00–22 50	‡	48	216
Markers and distributors	Male	Week	18 00–22 50	‡	48	
Laundry workers	Female	Week	8 00–15 00	8	48	
Washers	Male	Week	15 00–22 50	8	48	217
Markers and distributors	M. & F.	Week	15 00–22 50	8	48	
Laundry workers	M. & F.	Week	8 00–13 50	8	48	

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*Rates not reported. †Hours not reported. ‡Hours irregular.

LABOR ORGANIZATIONS: SHOWING RATES OF WAGES

No.	Locality.	Trade and organization.
		III. Clothing and Textiles—Continued.
		(b) LAUNDRY WORKERS—Continued.
		Laundry Workers—Continued.
218	Stockton	Laundry Workers' International Union, No. 72
		(c) HATS AND CAPS.
		Hat and Cap Workers—
219	Los Angeles	United Hatters of North America, No. 22
220	San Francisco	United Hatters of North America, No. 23
221	San Francisco	International Cloth Hat and Cap Makers of America, No. 9.
		(d) BOOTS, SHOES AND GLOVES.
		Boot and Shoe Workers—
222	San Francisco	Boot and Shoe Workers' Union, No. 216
		Glove Workers—
223	San Francisco	International Glove Workers' Union of America, No. 39
		IV. Metals, Machinery and Shipbuilding.
		(a) IRON AND STEEL.
		Architectural Iron Workers—
224	San Francisco	International Association of Bridge and Structural Iron Workers, No. 78.
		Blacksmiths—
225	Oakland	International Brotherhood of Blacksmiths and Helpers, No. 100.
226	San Francisco	International Brotherhood of Blacksmiths and Helpers, No 168.
227	San Francisco	International Brotherhood of Blacksmiths and Helpers, No. 316.
		Boilermakers—
228	Los Angeles	International Brotherhood of Boilermakers and Iron Ship Builders and Helpers of America, No. 92.
229	Los Angeles	International Brotherhood of Boilermakers and Iron Ship Builders and Helpers of America, No. 539.
230	San Francisco	International Brotherhood of Boilermakers and Iron Ship Builders and Helpers of America, No. 25.
231	San Francisco	International Brotherhood of Boilermakers and Iron Ship Builders and Helpers of America, No. 205.
232	San Francisco	International Brotherhood of Boilermakers and Iron Ship Builders and Helpers of America, No. 410.
233	Vallejo	International Brotherhood of Boilermakers and Iron Ship Builders and Helpers of America, No. 148.
		Foundry Workers—
234	San Francisco	International Brotherhood of Foundry Employees, No. 8.

AND HOURS OF LABOR ON JANUARY 1, 1912—Continued.

Occupation.	Sex.	Rates of wages.		Hours of labor.		No.
		Unit.	Rates.	On first 5 days.	Weekly.	
Washers	Male	Week	$15 00–$20 00	8	48	218
Markers and distributors	Male	Week	15 00–20 00	8	48	
Laundry workers	M. & F.	Day	1 50–2 00	8	48	
Finishers	Male	Piece	Av. wk. 20 00	9	50	219
Curlers and finishers	Male	Piece	Av. wk. 20 00	9	50	220
Operators	Male	Piece	Av. wk. 25 00	8	48	221
Operators	Female	Piece	Av. wk. 15 00	8	48	
Trimmers	Female	Piece	Av. wk. 13 50	8	48	
Boot and shoe workers	Male	Piece	12 00–25 00 Av. per wk.	9	54	222
Fitters	Female	Piece	9 00–16 00 Av. per wk.	8	48	
Glove cutters	Male	Piece	Av. wk. 15 00	9	49½	223
Glove workers	Female	Piece	Av. wk. 12 00	8	44	
Outside men	Male	Hour	62½	8	44	224
Shopmen	Male	Hour	44½	9	54	
Shopmen, helpers	Male	Hour	33⅓	9	54	
Blacksmiths	Male	Day	4 00	8	48	225
Blacksmiths, helpers	Male	Day	3 00	8	48	
Blacksmiths	Male	Day	4 00	8	48	226
Blacksmiths, helpers	Male	Day	3 00–3 50	8	48	227
Boilermakers	Male	Hour	45½	8–9	56–63	228
Boilermakers, helpers	Male	Hour	27½	8–9	56–63	
Boilermakers	Male	Day	4 00	8	48	229
Tankbuilders	Male	Day	5 00	8	48	
Boilermakers	Male	Day	4 00	8	48	230
Iron ship builders	Male	Day	5 00	8	48	
Iron ship builders	Male	Day	3 60	8	48	231
Shipfitters	Male	Day	4 00	8	48	232
Boilermakers	Male	Hour	50	8	48	233
Iron ship builders	Male	Hour	30	8	48	
Casting chippers	Male	Day	3 00	8	48	234
Cupolamen	Male	Day	3 50	8	48	
Flaskmakers	Male	Day	3 50	8	48	
Laborers	Male	Day	2 25	9	54	
Molders, helpers	Male	Day	2 50	8–9	48–54	

LABOR ORGANIZATIONS: SHOWING RATES OF WAGES

No.	Locality.	Trade and organization.
		IV. Metals, Machinery and Shipbuilding—Continued.
		(a) IRON AND STEEL—Continued.
		Horseshoers—
235	Sacramento	International Union of Journeymen Horseshoers of the United States and Canada, No. 47.
236	San Francisco	International Union of Journeymen Horseshoers of the United States and Canada, No. 25.
		Machinists—
237	Dunsmuir	International Association of Machinists, No. 442
238	Fresno	International Association of Machinists, No. 653
239	Los Angeles	International Association of Machinists, No. 311
240	San Francisco	International Association of Machinists, No. 6
241	San Francisco	International Association of Machinists, No. 68
242	San Francisco	International Association of Machinists, No. 715
243	San Jose	International Association of Machinists, No. 504
244	Tiburon	International Association of Machinists, No. 238
245	Vallejo	International Association of Machinists, No. 252
		Molders and Coremakers—
246	Los Angeles	International Molders' Union of North America, No. 374
247	San Francisco	International Molders' Union of North America, No. 164
248	San Francisco	Molders' Auxiliary, No. 1
		Patternmakers—
249	Los Angeles	Patternmakers' League of North America
250	San Francisco	Patternmakers' League of North America
		Sheet Metal Workers—
251	Sacramento	Amalgamated Sheet Metal Workers' International Alliance, No. 348.
252	San Francisco	Amalgamated Sheet Metal Workers' International Alliance, No. 342.
		(b) METALS OTHER THAN IRON AND STEEL.
		Coppersmiths—
253	San Francisco	Amalgamated Sheet Metal Workers' International Alliance, No. 95.
		Metal Polishers, Buffers and Platers—
254	Los Angeles	Metal Polishers, Buffers, Platers, Brass Molders and Brass and Silver Workers' Union of America, No. 67.
255	San Francisco	Metal Polishers, Buffers, Platers, Brass Molders and Brass and Silver Workers' Union of America, No. 128.
		(c) SHIPBUILDING.
		Sailmakers—
256	San Francisco	Sailmakers' Union, No. 11775
		Shipdrillers—
257	San Francisco	Shipdrillers' Union, No. 9037

AND HOURS OF LABOR ON JANUARY 1, 1912—Continued.

Occupation.	Sex.	Rates of wages.		Hours of labor.		No.
		Unit.	Rates.	On first 5 days.	Weekly.	
Horseshoers	Male	Day	$4 50	9	53	235
Horseshoers	Male	Day	5 00	9	53	236
Machinists	Male	Hour	43	9	54	237
Machinists:						
(a) Automobile	Male	Hour	40–50	9	54	238
(b) Contract work	Male	Hour	40–45	9	54	
(c) Railroad	Male	Hour	44	9	54	
Machinists	Male	Hour	35–55	8–9	48–54	239
Tool and die makers	Male	Hour	45–50	8–9	48–54	
Machinists, apprentices	Male	*	*	8	48	240
Machinists	Male	Day	3 50–4 00	8	48	241
Machinists	Male	Day	3 00	8	48	242
Machinists	Male	Day	3 50	8	48	243
Machinists	Male	Hour	43	9	54	244
Machinists	Male	Day	3 24–4 24	8	48	245
Molders	Male	Hour	37½	9	54	246
Molders and coremakers	Male	Day	4 00	8	48	247
Molders, apprentices	Male	Day	1 00 Min.	8	48	248
Patternmakers	Male	Hour	45–55	8	48	249
Patternmakers	Male	Day	5 00	8	48	250
Coppersmiths	Male	Hour	40	9	54	251
Pipe fitters	Male	Hour	40	9	54	
Sheet metal workers	Male	Hour	40	9	54	
Coppersmiths and tinners	Male	Hour	40	9	53	252
Laborers	Male	Hour	25–27½	9	53	
Pipe fitters	Male	Hour	37½	9	53	
Coppersmiths	Male	Day	4 50	8	44	253
Brass workers	Male	Day	2 50–4 00	8–9	48–54	254
Platers	Male	Day	3 00–4 00	8–9	48–54	
Polishers	Male	Day	2 50–3 50	8–9	48–54	
Platers	Male	Day	3 50	9	54	255
Polishers	Male	Day	3 50	9	54	
Sail makers	Male	Hour	62½	8	48	256
Ship drillers	Male	Day	2 75	8	48	257

*Rates not reported.

LABOR ORGANIZATIONS: SHOWING RATES OF WAGES

No.	Locality.	Trade and organization.
		IV. Metals, Machinery and Shipbuilding—Continued.
		(c) SHIPBUILDING—Continued.
		Shipwrights, Joiners and Calkers—
258	San Francisco	Pacific Coast Maritime Building Federation, No. 9
259	San Francisco	Pacific Coast Maritime Building Federation, No. 16
260	San Francisco	Pacific Coast Maritime Building Federation, No.
		V. Printing, Binding, etc.
		Bookbinders—
261	San Francisco	International Brotherhood of Bookbinders, No. 31
262	San Francisco	International Brotherhood of Bookbinders, No. 125
		Compositors—
263	Long Beach	International Typographical Union of North America, No. 650.
264	Los Angeles	International Typographical Union of North America, No. 174.
265	Modesto	International Typographical Union of North America, No. 689.
266	Oakland	International Typographical Union of North America, No. 36.
267	Palo Alto	International Typographical Union of North America, No. 521.
268	Pasadena	International Typographical Union of North America, No. 583.
269	Richmond and Martinez.	International Typographical Union of North America, No. 597.
270	Sacramento	International Typographical Union of North America, No. 46.
271	San Diego	International Typographical Union of North America, No. 221.
272	San Francisco	International Typographical Union of North America, No. 21.

AND HOURS OF LABOR ON JANUARY 1, 1912—Continued.

Occupation.	Sex.	Rates of wages.		Hours of labor.		No.
		Unit.	Rates.	On first 5 days.	Weekly.	
Shipwrights	Male	Day	$5 00	8	48	258
Ship joiners	Male	Day	5 00	8	48	259
Calkers	Male	Day	5 00	8	48	260
Bookbinders	Male	Week	24 00	8	48	261
Forewomen	Female	Week	14 00–16 00	8	48	262
Machine operators:						
(a) First class	Female	Week	10 00–12 00	8	48	
(b) Second class	Female	Week	8 00–10 00	8	48	
Machine operators, appren.	Female	Week	4 00– 7 00	8	48	
Compositors	Male	Week	24 00	8	48	263
Compositors	Male	Week	21 00	8	48	264
Linotype operators	Male	Day	5 16⅔	8	48	
Linotype operators	Female	Day	5 16⅔	8	48	
Proof readers, day	Female	Day	4 66⅔	8	48	
Proof readers, night	Female	Day	5 16⅔	8	48	
Floormen	Male	Week	18 00	8	48	265
Machine operators, day	Male	Week	21 00	8	48	
Mchine operators, night	Male	Week	24 00	8	48	
Machinist-operators, day	Male	Week	24 00	8	48	
Machinist-operators, night	Male	Week	27 00	8	48	
Compositors, job	Male	Day	4 50	8	48	266
Newspapers:						
(a) Floor men	Male	Day	4 83⅓	7½	45	
(b) Foremen	Male	Day	5 83⅓	7½	45	
(c) Operators	Male	Day	4 83⅓	7½	45	
(d) Proof readers	Male	Day	5 00	7½	45	
Compositors	Male	Week	18 00	8	48	267
Job:						
(a) Compositors	Male	Week	20 00	8	48	268
(b) Foremen	Male	Week	24 00	8	48	
Newspapers:						
(a) Foremen	Male	Week	30 00	8	48	
(b) Machinist-operators	Male	Week	27 00	8	48	
(c) All others	Male	Week	24 00	8	48	
Compositors	Male	Week	19 00–24 00	8	48	269
Compositors, job	Male	Day	4 00	8	48	270
Compositors, newspapers:						
(a) Day	Male	Day	4 25	8	48	
(b) Night	Male	Day	4 75	8	48	
Compositors, job	Male	Day	4 00	8	48	271
Compositors, newspapers:						
(a) Day	Male	Day	4 50	8	48	
(b) Night	Male	Day	5 00	8	48	
Compositors, job	Male	Day	4 00	8	48	272
Compositors, newspapers:						
(a) Day	Male	Day	4 83⅓	7½	45	
(b) Night	Male	Day	5 33⅓	7½	45	

LABOR ORGANIZATIONS: SHOWING RATES OF WAGES

No.	Locality.	Trade and organization.
		V. Printing, Binding, etc.—Continued.
		Compositors—Continued.
273	San Jose	International Typographical Union of North America, No. 231.
274	San Mateo	International Typographical Union of North America, No. 624.
275	Santa Rosa	International Typographical Union of North America, No. 577.
		Electrotypers and Stereotypers—
276	San Francisco	International Stereotypers and Electrotypers' Union of North America, No. 29.
		Lithographers—
277	San Francisco	Lithographers' International Protective and Benevolent Association of the United States and Canada No. 17.
		Mailers—
278	San Francisco	International Typographical Union of North America, No. 18.
		Photo-Engravers—
279	Los Angeles	International Photo Engravers' Union of North America, No. 32.
280	San Francisco	International Photo Engravers' Union of North America, No. 8.
		Pressmen—
281	Los Angeles	International Printing Pressmen and Assistants' Union of North America, No. 37.
282	Los Angeles	International Printing Pressmen and Assistants' Union of North America, No. 78.
283	San Francisco	International Printing Pressmen and Assistants' Union of North America, No. 4.
284	San Francisco	International Printing Pressmen and Assistants' Union of North America, No. 24.
285	San Francisco	International Printing Pressmen and Assistants' Union of North America, No. 33.
286	San Jose	International Printing Pressmen and Assistants' Union of North America, No. 146.

AND HOURS OF LABOR ON JANUARY 1, 1912—Continued.

Occupation.	Sex.	Rates of wages.		Hours of labor.		No.
		Unit.	Rates.	On first 5 days.	Weekly.	
Compositors, job	Male	Day	$3 75	8	48	273
Compositors, hand, news:						
(a) Day	Male	Day	4 25	7½	45	
(b) Night	Male	Day	4 75	7½	45	
Linotype operators, news:						
(a) Day	Male	Day	4 25	7½	45	
(b) Night	Male	Day	4 75	7½	45	
Compositors	Male	Week	18 00	8	48	274
Compositors	Female	Week	18 00	8	48	
Foremen	Male	Week	20 00	8	48	
Compositors	Male	Week	21 00	8	48	275
Electrotypers	Male	Day	4 50	8	48	276
Stereotypers	Male	Day	4 50	7½	45	
Engravers	Male	Week	24 00	8	48	277
Pressmen	Male	Week	24 00	8	48	
Provers	Male	Week	24 00	8	48	
Transferers	Male	Week	24 00	8	48	
Mailers	Male	Day	3 40	8	48	278
Photo-engravers	Male	Day	4 00	8	48	279
Photo-engravers, day	Male	Week	24 00–27 00	8	48	280
Photo-engravers, night	Male	Week	29 00	8	48	
Press feeders	Male	Week	12 00–13 50	8	48	281
Press feeders, cylinder	Male	Week	15 00	8	48	
Foremen	Male	Week	25 00	8	48	282
Pressmen	Male	Week	21 00	8	48	
Pressmen, helpers	Male	Week	15 00	8	48	
Pressmen, job	Male	Week	18 00	8	48	
Press feeders, job	Male	Week	13 50	8	48	
Pressmen, web	Male	Day	5 16	8	48	283
Pressmen, web, apprentices	Male	Day	2 50	8	48	
Pressmen, web, helpers	Male	Day	3 95–4 55	8	48	
Pressmen	Male	Day	4 00–5 00	8	48	284
Pressmen, assistants	Male	Week	13 50	8	48	285
Pressmen, cylinder, assist's	Male	Week	16 50	8	48	
Pressmen, cylinder	Male	Week	24 00	8	48	286
Pressmen, web, day	Male	Week	21 00–25 00	8	48	
Pressmen, web, night	Male	Week	24 00–30 00	7½	45	

LABOR ORGANIZATIONS: SHOWING RATES OF WAGES

No.	Locality.	Trade and organization.
		VI. Woodworking and Furniture.
		Broommakers—
287	San Francisco	International Broom and Whisk Makers' Union, No. 58
		Carpet and Shade Workers—
288	Sacramento	Carpet and Shade Workers' International Association, No. 7.
289	San Francisco	Carpet and Shade Workers' International Association, No. 1.
290	San Francisco	Window Shade Workers' Union,
		Carriage and Wagon Workers—
291	San Francisco	Carriage, Wagon and Automobile Workers' International Union, No. 6.
		Coopers—
292	Los Angeles	Coopers' International Union of North America, No. 152
293	San Francisco	Coopers' International Union of North America, No. 65
		Mill Workers—
294	Los Angeles	United Brotherhood of Carpenters and Joiners of America, No. 884.
295	Sacramento	United Brotherhood of Carpenters and Joiners of America, No. 1618.
296	San Francisco	United Brotherhood of Carpenters and Joiners of America, No. 422.
297	San Francisco	United Brotherhood of Carpenters and Joiners of America, No. 423.
298	San Jose	United Brotherhood of Carpenters and Joiners of America, No. 262.
		VI. Woodworking and Furniture—Continued.
		Upholsterers—
299	San Francisco	Upholsterers' International Union of North America, No. 28.
		Wood Carvers—
300	San Francisco	Wood Carvers' Union
		VII. Food and Liquors.
		(a) FOOD PRODUCTS.
		Bakers and Confectioners—
301	Bakersfield	Bakery and Confectionery Workers' International Union of America, No. 146.
302	Los Angeles	Bakery and Confectionery Workers' International Union of America, No. 37.
303	Los Angeles	Bakery and Confectionery Workers' International Union of America, No. 63.

AND HOURS OF LABOR ON JANUARY 1, 1912—Continued.

Occupation.	Sex.	Rates of wages.		Hours of labor.		No.
		Unit.	Rates.	On first 5 days.	Weekly.	
Makers and sewers	Male	Piece	$18 00–$20 00 Av. per wk.	9	52	287
Carpet and shade workers	Male	Week	24 00	9	54	288
Carpet layers	Male	Day	5 00	9	54	289
Shade workers	Male	Day	4 00	8	48	290
Blacksmiths	Male	Day	4 00	8	48	291
Blacksmiths, helpers	Male	Day	3 00	8	48	
Painters	Male	Day	3 00–4 00	8	48	
Woodworkers	Male	Day	4 00	8	48	
Coopers, beer barrels	Male	Week	24 00	8	48	292
Coopers, wine & whisky bbls	Male	Week	21 00	8	48	
Coopers, slack barrels	Male	Piece	Av. wk. 30 00	8	48	
Coopers	Male	Day	4 00	9	54	293
Stickermen	Male	Hour	40	9	54	294
Bench hands	Male	Hour	30	9	54	
Mill hands	Male	Hour	22–25	9	54	
Sash and door makers	Male	Day	3 50	8	48	295
Machine and bench hands	Male	Day	4 00	8	48	
Cabinet makers	Male	Day	4 50	8	48	296
Mill hands	Male	Day	3 25–5 00	8	48	297
Mill hands	Male	Day	3 25–5 00	8	48	298
Upholsterers	Male	Day	4 50	8	48	299
Mattress workers	Male	Day	4 00	8	44	
Wood carvers	Male	Day	4 00–5 00	8	48	300
Foremen	Male	Week	27 00	9	55	301
Bench hands, oven men, etc.	Male	Week	21 00–23 00	9	55	
Helpers	Male	Week	16 00	9	55	
Foremen	Male	Week	24 00	9	54	302
Bench hands, oven men, etc.	Male	Week	18 00–21 00	9	54	
Helpers	Male	Week	12 00	9	54	
Cracker bakers	Male	Day	3 50–4 00	9	54	303
Cracker bakers, helpers	Male	Day	1 50 2 50	9	54	

LABOR ORGANIZATIONS: SHOWING RATES OF WAGES

No.	Locality.	Trade and organization.
		VII. Food and Liquors—Continued.
		(a) FOOD PRODUCTS—Continued.
		Bakers and Confectioners—Continued.
304	San Diego	Bakery and Confectionery Workers' International Union of America, No. 90.
305	San Francisco	Bakery and Confectionery Workers' International Union of America, No. 24.
306	San Francisco	Bakery and Confectionery Workers' International Union of America, No. 125.
307	San Francisco	Bakery and Confectionery Workers' International Union of America, No. 125 (Annex).
		Butchers and Meat Cutters—
308	Sacramento	Amalgamated Meat Cutters and Butcher Workmen of North America, No. 498.
309	San Francisco	California Federation of Butchers, No. 1
		Paste Makers—
310	San Francisco	Paste Makers' Union
		(b) BEVERAGES.
		Brewery Employees (Beer Drivers and Bottlers)—
311	Los Angeles	International Union of United Brewery Workmen of America, No. 227 (Branch 6).
312	San Francisco	International Union of United Brewery Workmen of America, No. 293.
313	San Francisco	International Union of United Brewery Workmen of America, No. 227.
		Brewery Employees (Brewers and Maltsters)—
314	San Francisco	International Union of United Brewery Workers of America, No. 7.
		Soda and Mineral Water Bottlers—
315	San Francisco	Soda and Mineral Water Bottlers, No. 10333
		VIII. Theaters and Music.
		Actors and Chorus Singers—
316	San Francisco	White Rats Actors' Union of America
		Bill Posters—
317	San Francisco	International Alliance of Bill Posters and Billers of America, No. 444.
		Moving Picture and Projecting Machine Operators—
318	Los Angeles	International Alliance of Theatrical Stage Employees, No. 150.
319	San Francisco	International Alliance of Theatrical Stage Employees, No. 162.
320	Stockton	International Alliance of Theatrical Stage Employees, No. 3 Auxiliary.

AND HOURS OF LABOR ON JANUARY 1, 1912—Continued.

Occupation.	Sex.	Rates of wages.		Hours of labor.		No.
		Unit.	Rates.	On first 5 days.	Weekly.	
Foremen	Male	Week	$22 00-$25 00	10	56	304
Bench hands, oven men, etc.	Male	Week	18 00-22 00	10	56	
Bakers, first hands	Male	Week	25 00	9	54	305
Bakers, second hands	Male	Week	20 00	9	54	
Cracker bakers, foremen	Male	Day	4 25	8½	50	306
Cracker bakers	Male	Day	3 00-4 00	8½	50	
Cracker bakers, helpers	Male	Day	2 25-3 25	8½	50	
Cracker and cake packers	Female	Day	1 25-1 75	8	48	307
Icing workers	Female	Day	1 25	8	48	
Carton makers	Female	Piece	Av. wk. 11 00	8	48	
Meat cutters and butchers	Male	No scale of hours or wages.				308
Meat cutters	Male	Week	20 00	10	61	309
Sausage makers	Male	Week	21 00	9	54	
Slaughterhouse men	Male	Month	125 00-150 00	8	45	
Apprentices	Male	Week	8 00-16 00	10	61	
Paste makers	Male	Day	2 75	8½	51	310
Beer drivers, bottle	Male	Week	20 00-23 00	9	54	311
Beer drivers, keg	Male	Week	23 00-26 00	9	54	
Stablemen	Male	Week	18 50-20 00	9	54	
Bottlers, labelers, etc.	Male	Week	20 25	8	48	312
Battle washers, floormen, etc.	Male	Week	18 75	8	48	
Beer drivers, bottle	Male	Week	21 00	10	60	313
Beer drivers, keg	Male	Week	23 00-27 00	10	60	
Stablemen	Male	Week	23 00	11	66-77	
Brewers and maltsters	Male	Day	4 00	8	48	314
Bottlers and mixers	Male	Day	3 50	9	54	315
Bottle washers	Male	Day	2 50	9	54	
Theatrical performers	M. & F.	*	*	†	†	316
Bill posters	Male	Day	3 00	8	48	317
Operators	Male	Week	21 00	8	56	318
Operators and installers	Male	Week	30 00	8	56	319
Apprentices	Male	Week	15 00	8	56	
Operators	Male	Week	25 00	8	56	320

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*Rates not reported. †Hours not reported.

LABOR ORGANIZATIONS: SHOWING RATES OF WAGES

No.	Locality.	Trade and organization.
		VIII. Theaters and Music—Continued.
		Musicians—
321	Fresno	American Federation of Musicians, No. 210
322	Los Angeles	American Federation of Musicians, No. 47
323	Marysville	American Federation of Musicians, No. 158
324	San Jose	American Federation of Musicians, No. 153
325	San Mateo	American Federation of Musicians, No. 535
326	Santa Barbara	American Federation of Musicians, No. 308
327	Santa Rosa	American Federation of Musicians, No. 292
328	Vallejo	American Federation of Musicians, No. 367
		Stage Mechanics—
329	Los Angeles	International Alliance of Theatrical Stage Employees, No. 33.
330	Oakland	International Alliance of Theatrical Stage Employees, No. 107.
331	Sacramento	International Alliance of Theatrical Stage Employees, No. 50.
332	San Francisco	International Alliance of Theatrical Stage Employees, No. 16.
		IX. Tobacco.
		Cigar Makers—
333	Bakersfield	Cigar Makers' International Union of America, No. 469
334	Los Angeles	Cigar Makers' International Union of America, No. 225
335	Oakland	Cigar Makers' International Union of America, No. 253
336	San Francisco	Cigar Makers' International Union of America, No. 228
337	San Jose	Cigar Makers' International Union of America, No. 291
		Tobacco Workers—
338	San Francisco	Tobacco Workers' International Union, No. 74
		X. Restaurants and Trade.
		(a) HOTELS AND RESTAURANTS.
		Bartenders—
339	Los Angeles	Hotel and Restaurant Employees' National Alliance and Bartenders' International League of America, No. 284.
340	Mojave	Hotel and Restaurant Employees' National Alliance and Bartenders' International League of America, No. 445.
341	San Diego	Hotel and Restaurant Employees' National Alliance and Bartenders' International League of America, No. 768.
342	San Francisco	Hotel and Restaurant Employees' National Alliance and Bartenders' International League of America, No. 41.

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§Musicians in most instances are engaged in another occupation through which varies with the nature of service rendered and the purpose for which it is rendered.

*Rates not reported. ¶Sex not reported. †Hours not reported.

AND HOURS OF LABOR ON JANUARY 1, 1912—Continued.

Occupation.	Sex.	Rates of wages.		Hours of labor.		No.
		Unit.	Rates.	On first 5 days.	Weekly.	
Musicians	¶	§	§	§	§	321
Musicians	Male	§	§	§	§	322
Musicians	M. & F.	§	§	§	§	323
Musicians	¶	§	§	§	§	324
Musicians	¶	§	§	§	§	325
Musicians	M. & F.	§	§	§	§	326
Musicians	¶	§	§	§	§	327
Musicians	¶	§	§	§	§	328
Mechanics, property men, etc.	Male	Week	$22 50–$30 00	‡	‡	329
Flymen, etc.	Male	Performance	1 00–1 75	‡	‡	
Mechanics, property men, etc.	Male	Week	20 00–35 00	‡	‡	330
Flymen, etc.	Male	Performance	1 25–1 75	‡	‡	
Mechanics, property men, etc.	Male	Week	20 00–30 00	‡	‡	331
Flymen, etc.	Male	Performance	1 25–1 50	‡	‡	
Employees	Male	*	*	‡	‡	332
Cigarmakers	Male	Piece	15 00 Av. per wk.	8	47	333
Cigarmakers	Female	Piece	15 00 Av. per wk.	8	48	
Cigarmakers	Male	Piece	12 00–26 00 Av. per wk.	8	48	334
Cigarmakers	Female	Piece	12 00–26 00 Av. per wk.	8	48	
Cigarmakers	Male	Piece	16 00 Av. per wk.	8	48	335
Cigarmakers	Female	Piece	16 00 Av. per wk.	8	48	
Cigarmakers	Male	Piece	*	8	48	336
Cigarmakers	Female	Piece	*	8	48	
Cigarmakers	Male	Piece	*	†	†	337
Cigarmakers	Female	Piece	*	†	†	
Cutters	Male	Week	15 00	8½	51	338
Packers	Female	Week	7 00	8	48	
Bartenders	Male	Week	25 00	10	60	339
Bartenders	Male	Hour	30	10–12	70–84	340
Bartenders	Male	Week	20 00–25 00	10	60	341
Bartenders	Male	Week	21 00	10	60	342

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they gain a livelihood, many being members of unions in other trades. The wage

‡Hours irregular.

LABOR ORGANIZATIONS: SHOWING RATES OF WAGES

No.	Locality.	Trade and organization.
		X. Restaurants and Trade—Continued.
		(a) Hotels and Restaurants—Continued.
		Cooks, Waiters and Waitresses—
343	Bakersfield	Hotel and Restaurant Employees' National Alliance and Bartenders' International League of America, No. 550.
344	Coalinga	Hotel and Restaurant Employees' National Alliance and Bartenders' International League of America, No. 384.
345	Oakland	Hotel and Restaurant Employees' National Alliance and Bartenders' International League of America, No. 31.
346	Los Angeles	Hotel and Restaurant Employees' National Alliance and Bartenders' International League of America, No. 17.
347	Los Angeles	Hotel and Restaurant Employees' National Alliance and Bartenders' International League of America, No. 27.
348	Los Angeles	Hotel and Restaurant Employees' National Alliance and Bartenders' International League of America, No. 98.
349	Sacramento	Hotel and Restaurant Employees' National Alliance and Bartenders' International League of America, No. 561.
350	San Diego	Hotel and Restaurant Employees' National Alliance and Bartenders' International League of America, No. 402.
351	San Francisco	Hotel and Restaurant Employees' National Alliance and Bartenders' International League of America, No. 30.
352	San Francisco	Hotel and Restaurant Employees' National Alliance and Bartenders' International League of America, No. 44.
353	San Francisco	Hotel and Restaurant Employees' National Alliance and Bartenders' International League of America, No. 48.
354	San Francisco	Hotel and Restaurant Employees' National Alliance and Bartenders' International League of America, No. ----.
355	San Jose	Hotel and Restaurant Employees' National Alliance and Bartenders' International League of America, No. 180.
		(b) Barbering.
		Barbers—
356	Eureka	Journeymen Barbers' International Union, No. 431
357	Los Angeles	Journeymen Barbers' International Union, No. 295
358	Petaluma	Journeymen Barbers' International Union, No. 419
359	Riverside	Journeymen Barbers' International Union, No. 171
360	San Diego	Journeymen Barbers' International Union, No. 256
361	San Francisco	Journeymen Barbers' International Union, No. 148
362	Santa Barbara	Journeymen Barbers' International Union, No. 560
363	Santa Rosa	Journeymen Barbers' International Union, No. 159
364	Vallejo	Journeymen Barbers' International Union, No. 335

AND HOURS OF LABOR ON JANUARY 1, 1912—Continued.

Occupation.	Sex.	Rates of wages.		Hours of labor.		No.
		Unit.	Rates.	On first 5 days.	Weekly.	
Cooks	Male	Day	$3 50	10	70	343
Helpers	Male	Day	1 75	10	70	
Waiters	Male	Day	2 50	10	70	
Cooks	Male	Day	3 00–3 50	11	66	344
Helpers	Male	Day	2 00	11	66	
Waiters	Male	Day	3 00	11	66	
Waitresses	Female	Day	1 66⅔	8	48	
Cooks	Male	Week	18 00	10	60	345
Waiters	Male	Week	10 00	10	60	
Waitresses	Female	Week	8 00	8	48	
Waiters	Male	Week	12 00	10	70	346
Cooks	Male	Week	18 00	11	77	347
Waitresses	Female	*	*	7	48	348
Cooks	Male	Week	18 00–30 00	10	70	349
Helpers	Male	Week	12 00–14 00	10	70	
Waiters	Male	Week	10 00	10	70	
Waitresses	Female	Week	8 00	8	48	
Cooks	Male	*	*	10	60	350
Helpers	Male	*	*	10	60	
Waiters	Male	*	*	10	60	
Waitresses	Female	*	*	8	48	
Yardmen	Male	*	*	10	60	
Waiters	Male	Day	2 00	10	60	351
Cooks	Male	Day	3 00	10½	63	352
Cooks	Female	Day	3 00	8	48	
Waitresses	Female	Week	9 00	8	48	353
Cooks, helpers	Male	Week	12 00	12	72	354
Helpers	Male	Week	10 00	12	72	
Cooks	Male	Week	16 00	12	84	355
Waiters	Male	Week	10 00	12	84	
Waitresses	Female	Week	8 00	8	48	
Barbers	Male	Week	18 00	12	74½	356
Barbers	Male	Percentage,	60%, $14 guarantee.	11	64	357
Barbers	Male	Week	18 00	10	62½	358
Barbers	Male	Week	15 00	11½	72	359
Barbers	Male	Percentage,	60%, $16 Av. per wk.	10½	67	360
Barbers	Male	*	*	10	62	361
Barbers	Male	*	*	12	72	362
Barbers	Male	Week	15 00	9¾	62	363
Barbers	Male	Week	16 00	10½	66	364

*Rates not reported.

LABOR ORGANIZATIONS: SHOWING RATES OF WAGES

No.	Locality.	Trade and organization.
		X. Restaurants and Trade—Continued.
		(c) RETAIL TRADE.
		Clerks and Salesmen—
365	Bakersfield	Retail Clerks' International Protective Association, No. 137.
366	Bakersfield	Retail Clerks' International Protective Association, No. 1217.
367	Oakland	Retail Clerks' International Protective Association, No. 47.
368	San Francisco	Retail Clerks' International Protective Association, No. 410.
369	San Francisco	Retail Clerks' International Protective Association, No. 432.
370	San Francisco	Retail Clerks' International Protective Association, No. 648.
371	San Francisco	Newspaper Solicitors' Union, No. 12766
		XI. Public Employment.
		Post Office Clerks—
372	Los Angeles	National Federation of Post Office Clerks, No. 64
373	San Francisco	National Federation of Post Office Clerks, No. 2
		XII. Stationary Engine Men.
		Dredgermen—
374	San Francisco	International Union of Steam Engineers, No. 493
		Engineers, Stationary—
375	Los Angeles	International Union of Steam Engineers, No. 72
376	San Francisco	International Union of Steam Engineers, No. 64
377	San Jose	International Union of Steam Engineers, No. 171
		Firemen, Stationary—
378	San Francisco	International Brotherhood of Stationary Firemen, No. 86.
		XIII. Miscellaneous.
		(a) LEATHER AND LEATHER GOODS.
		Harness Makers—
379	Los Angeles	United Brotherhood of Leather Workers on Horse Goods, No. 72.
380	San Francisco	United Brotherhood of Leather Workers on Horse Goods, No. 57.
		(b) GLASS AND GLASSWARE.
		Art Glass Workers—
381	Los Angeles	Amalgamated Glass Workers' International Association, No. 5.
		Flint Glass Workers—
382	San Francisco	American Flint Glass Workers' Union, No. 66

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*Rates not reported.

†Hours not reported.

AND HOURS OF LABOR ON JANUARY 1, 1912—Continued.

Occupation.	Sex.	Rates of wages.		Hours of labor.		No.
		Unit.	Rates.	On first 5 days.	Weekly.	
Clerks	Male	*	*	9½	60½	365
Clerks	Male	*	*	10	62	366
Clerks	Female	*	*	8	48	
Clerks	Male	Week	Min. $15 00	9	57	367
Clerks	Female	Week	Min. 8 00	8	48	
Shoe clerks	Male	Month	65 00	9	57	368
Drug clerks	Male	Month	100 00	†	60	369
Grocery clerks	Male	Week	Min. 15 00	11	67	370
Newspaper solicitors, city	Male	Day	3 10	8	48	371
Newspaper solicitors, country	Male	Week	25 00	8	48	
Post office clerks	Male	Year	600 00–1400 00	‡	‡	372
Post office clerks	M. & F.	Year	600 00–1400 00	8¼	49½	373
Levermen	Male	Month	75 00	8	56	374
Firemen	Male	Month	50 00	12	80	
Deckmen	Male	Month	45 00	12	80	
Engineers, brewery	Male	Day	4 00	8	56	375
Stationary engineers	Male	Hour	35–50	8–10	48–70	
Stationary engineers	Male	Earnings run from $3 50 day to $250 mo.		8 av.	56 av.	376
Chief engineers	Male	Day	3 50–6 00	10 Max.		377
Assistant engineers	Male	Day	3 50–4 50	10 Max.		
Firemen	Male	Day	3 00–3 25	8	48–56	378
Watertenders	Male	Day	3 50	8	56	
Oilers, helpers, etc.	Male	Day	3 00	8	48–56	
Collar makers	Male	Piece	Av. wk. 10 00	9	54	379
Harness makers	Male	Piece	Av. wk. 10 00	9	54	
Saddle makers	Male	Piece	Av. wk. 15 00	9	54	
Harness makers	Male	Day	3 25–3 50	9	54	380
Art glass workers	Male	Week	21 00	8¾	48	381
Mold makers	Male	Week	25 00	9¾	54	382

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‡Hours irregular.

LABOR ORGANIZATIONS: SHOWING RATES OF WAGES

No.	Locality.	Trade and organization.
		XIII. Miscellaneous—Continued.
		(b) GLASS AND GLASSWARE—Continued.
		Glass Bottle Blowers and Caners—
383	San Francisco	Glass Bottle Blowers' Association of the United States and Canada, No. 22.
384	San Francisco	San Francisco Bottle Caners, No. 10535
		Glass Workers—
385	San Francisco	United Glass Workers' of San Francisco and Vicinity
		(c) CLAY PRODUCTS.
386	Richmond	National Brotherhood of Operative Potters, No. 89
		(d) OTHER DISTINCT TRADES.
		Bath House Employees—
387	San Francisco	Barber Shop Porters' and Bath House Employees' Union, No. 11963.
		Bootblacks—
388	San Francisco	Bootblacks' Protective Union, No. 10175
		Fishermen—
389	San Francisco	Alaska Fishermen's Union
		Gas and Water Workers—
390	Oakland	Gas and Water Workers' Union, No. 10678
391	San Francisco	Gas and Water Workers' Union, No. 9840

AND HOURS OF LABOR ON JANUARY 1, 1912—Continued.

Occupation.	Sex.	Rates of wages.		Hours of labor.		No.
		Unit.	Rates.	On first 5 days.	Weekly.	
Blowers	Male	Piece	Av.wk. $35 00	8½	49½	383
Bottle caners	Male	Piece	15 00–21 00 Av. per wk.	8	47½	384
Bottle caners	Female	Piece	1 00–2 00 Av. per dy.	8	47½	
Art glass workers	Male	Day	4 00	8	44	385
Bevelers	Male	Day	4 00	9	49½	
Glaziers	Male	Day	4 50	8	44	
Polishers	Male	Day	3 25	9	49½	
Sheet and plate cutters	Male	Day	4 50	9	49½	
Silverers	Male	Day	4 00	9	49½	
Kiln setters	Male	Piece	Av. wk. 23 00	8	48	386
Packers	Male	Day	3 33⅓	8	48	
Pressers and casters	Male	Piece	Av. wk. 25 00	8	48	
Sagger makers	Male	Piece	Av. wk. 30 00	8	48	
Bath house employees	Male	Month	47 50–60 00	10	70	387
Bath house attendants	Female	Month	45 00	8	48	
Bootblacks	Male	Day	2 00	13	88	388
Fishermen	Male	Season	Av. mo. 80 00	‡	‡	389
Calkers	Male	Day	3 75	8	56	390
Gas makers	Male	Month	110 00	8	56	
Gas makers, helpers	Male	Month	90 00	8	56	
Meter men	Male	Day	3 75	8	56	
Purifiers	Male	Day	3 00	8	56	
Street laborers	Male	Day	2 50	8	48	
Yard men	Male	Day	2 75	8	56	
Calkers	Male	Day	3 75	8	48	391
Gas makers	Male	Month	110 00	8	48	
Gas makers, helpers	Male	Day	3 00	8	48	
Meter men	Male	Day	3 75	8	48	
Purifiers	Male	Day	3 00	8	48	
Service and main laborers	Male	Day	2 50	8	48	
Yard men	Male	Day	2 75	8	48	

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‡Hours irregular.

LABOR ORGANIZATIONS: SHOWING RATES OF WAGES

No.	Locality.	Trade and organization.
		XIII. Miscellaneous—Continued.
		(d) OTHER DISTINCT TRADES—Continued.
		Gardeners—
392	San Francisco	Gardeners' Protective Union, No. 13020
		Janitors, Porters and Elevatormen—
393	San Francisco	Janitors' Protective Union, No. 10637
394	San Francisco	Elevator Conductors and Starters, No. 13105
		Milkers—
395	San Francisco	Milkers' Protective Union No. 8861
		Miners—
396	Bodie	Western Federation of Miners, No. 61
397	Grass Valley	Western Federation of Miners, No. 90
398	Randsburg	Western Federation of Miners, No. 44
399	Skidoo	Western Federation of Miners, No. 211
400	Sutter Creek	Western Federation of Miners, No. 135
		Sugar Workers—
401	San Francisco	Sugar Workers' Union, No. 10519
		Undertakers and Cemetery Employees—
402	San Francisco	Cemetary Employees, No. 10634
403	San Francisco	Undertaker's Union, No. 9049
		(e) MIXED EMPLOYMENT.
404	Bakersfield	United Laborers' Union, No. 14143
405	Los Angeles	United Laborers' Union, No. 13149
406	Vallejo	Federal Labor Union, No. 11345

AND HOURS OF LABOR ON JANUARY 1, 1912—Continued.

Occupation.	Sex.	Rates of wages.		Hours of labor.		No.
		Unit.	Rates.	On first 5 days.	Weekly.	
Gardeners	Male	Day	$3 00	8	48	392
Janitors:						393
(a) Office buildings	Male	Month	70 00	9	54-63	
(b) Public buildings	Male	Month	80 00	8	44	
(c) Theatres	Male	Week	17 50	8	56	
Elevator operators	Male	Month	70 00	9	54	394
Elevator starters	Male	Month	80 00	9	54	
Milkers, can & bottle washers	Male	Month	$50 and found	10	70	395
Miners	Male	Day	4 00	8	56	396
Miners	Male	Day	3 00	8	56	397
Muckers	Male	Day	2 25	8	56	
Car men	Male	Day	2 50	8	56	
Miners	Male	Week	24 50	8	56	398
Amalgamators	Male	Day	5 00	8	56	399
Blacksmiths	Male	Day	5 00	8	56	
Cyanide men	Male	Day	5 00	8	56	
Engineers	Male	Day	5 00	8	56	
Mechanics	Male	Day	5 00	8	56	
Miners	Male	Day	4 00	8	56	
Muckers	Male	Day	4 00	8	56	
Blacksmiths	Male	Day	3 50	9	63	400
Engineers	Male	Day	3 00	8	56	
Laborers	Male	Day	2 37½	8	56	
Mill hands	Male	Day	2 75	8	56	
Miners	Male	Day	2 75	8	56	
Smelter men	Male	Day	2 75	8	56	
Surface workers	Male	Day	2 25	9	63	
Liquor men	Male	Month	80 00	12	72	401
Sugar boilers	Male	Month	100 00	12	72	
Sugar workers	Male	Hour	15 00-16 00 Av. per wk.	12	72	
Cemetery employees	Male	Day	3 00	8	48	402
Undertakers	Male	Month	100 00	12	84	403
Undertakers, apprentices	Male	Month	50 00	12	84	
Bootblacks	Male	Percentage.	15 00 Av. per wk.	10	70	404
Laborers	Male	Day	2 00-3 00	8	48	
Porters	Male	Hour	25-30	8	48	
Laborers	Male	Hour	25-27½	9-10	54-60	405
Laborers	Male	Day	2 50	8	48	406

STEAM RAILROADS.

TABLE I. Number of Officers and Employees of California Railroads on June 30, 1912.

Officers and employees.	Amador Central Railroad Company[10]	Arcata and Mad River Railroad Company	Atchison, Topeka & Santa Fe Railway Company	Bay Point and Clayton Railroad Company[10]	Boca and Loyalton Railroad Company	Bucksport and Elk River Railroad Company	Butte County Railroad Company	California Western Railroad and Navigation Company	Camino, Placerville and Lake Tahoe Railroad Company[9]	Cement, Tolenas and Tidewater Railroad Company[8]	Colusa and Lake Railroad Company	Diamond and Caldor Railway Company	Eureka and Freshwater Railway Company[10]	Hanford and Summit Lake Railway Company[4]	Holton Interurban Railway Company	Iron Mountain Railway Company[10]
General officers			14		12	2	7	5	3	6	3	1			3	
Other officers			35		1		2	2		1	1	1			2	
General office clerks			608		7		2		1	4					3	
Station agents			179		3		4	1		1	3	2			1	
Other stationmen		[6]6	1242		1		2			1	1				2	
Enginemen			315		2	1	2	5	1	2	2	2			2	
Firemen			324		2		2	5	1	1		2			1	
Conductors			198		2	1	2	5	1	1	2	1			2	
Other trainmen		[7]13	674		4		4	7	2	2	1	2				
Machinists			299		2		3	2			2	1				
Carpenters		2	240		2		1	13				6				
Other shopmen			1247		6		1	2			2	4				
Section foremen		6	224		3	1	5	4	1		1	3			1	
Other trackmen		33	2253		14	3	18	31	10		8	13				
Switch tenders, crossing tenders and watchmen			45				1									
Telegraph operators and dispatchers			160													
Employees account floating equipment			131													
All other employees and laborers		12	2007		1			8			2	3				
Totals		72	10195		62	8	56	90	20	19	28	41			17	

TABLE I. Number of Officers and Employees of California Railroads on June 30, 1912—Continued.

Officers and employees.	Klamath Lake Railroad Company[1]	Lake Tahoe Railway and Transportation Company	Los Angeles and San Diego Beach Railway Company	McCloud River Railroad Company	Mill Valley and Mt. Tamalpais Scenic Railway	Nevada-California-Oregon Railway Company[1]	Nevada County Narrow Gauge Railroad Company	Northwestern Pacific Railroad Company	Ocean Shore Railroad Company	Pacific Coast Railway Company	Pajaro Valley Consolidated Railroad Company	Porterville Northeastern Railway Company[4]	Quincy Western Railway Company	Sacramento Valley and Eastern Railway Company	San Diego and Arizona Railway Company	San Diego and Cuyamaca Railway Company[2]
General officers	1	6	3	4	2	8	5	8	2	7	5	------	------	2	3	5
Other officers	------	1	1	5	1	2	------	13	1	3	------	------	------	------	2	1
General office clerks	------	2	3	2	1	7	2	42	13	8	2	------	------	1	25	2
Station agents	------	2	2	2	------	12	3	142	9	10	2	------	------	1	1	7
Other stationmen	------	3	2	2	------	22	8	87	9	11	------	------	------	------	1	8
Enginemen	1	2	3	7	5	6	3	51	6	6	2	------	------	1	1	6
Firemen	1	2	2	7	4	8	2	37	6	6	2	------	------	1	1	5
Conductors	1	2	5	8	5	5	2	50	6	7	2	------	------	1	1	4
Other trainmen	------	3	1	15	1	7	2	97	21	12	2	------	------	1	1	9
Machinists	------	3	3	5	2	9	2	48	3	4	2	------	------	------	------	6
Carpenters	------	1	------	6	------	9	4	66	6	6	------	------	------	------	------	2
Other shopmen	------	12	5	39	------	32	9	150	26	18	11	------	------	------	1	15
Section foremen	1	2	2	7	1	10	2	70	5	11	3	------	------	------	1	3
Other trackmen	4	19	11	57	9	95	9	560	28	33	23	------	------	------	6	18
Switch tenders, crossing tenders and watchmen	------	2	------	------	------	------	------	29	2	------	------	------	------	------	------	------
Telegraph operators and dispatchers	------	1	------	1	------	------	------	8	1	1	------	------	------	------	------	------
Employees account floating equipment	------	10	------	------	------	------	------	120	------	------	------	------	------	------	------	------
All other employees and laborers	------	183	5	6	------	3	2	127	2	24	2	------	------	6	1	------
Totals	9	256	48	173	31	235	55	1705	146	167	58	------	------	14	45	91

TABLE I. Number of Officers and Employees of California Railroads on June 30, 1912—Continued.

Officers and employees.	San Diego and Southeastern Railway Company[3]	San Diego Southern Railway Company[2]	San Pedro, Los Angeles and Salt Lake Railroad Company[1]	Santa Maria Valley Railroad Company[5]	Sierra Railway Company of California	Sierra and Mohawk Railway Company	Southern Pacific Company[1]	South San Francisco Belt Railway Company	Stockton Terminal and Eastern Railroad Company	Sugar Pine Railway Company	Sunset Railway Company	Tonopah and Tidewater Railroad Company	Ventura County Railway Company	Western Pacific Railway Company	Yosemite Valley Railroad Company	Yreka Railroad Company
General officers	8	9	12	4	------	------	91	------	2	2	------	6	4	6	6	------
Other officers	7	4	41	------	------	------	94	------	1	1	1	4	2	3	2	1
General office clerks	32	26	269	------	------	------	2239	------	------	1	1	9	------	107	2	------
Station agents	10	4	67	2	------	2	638	------	1	2	6	5	1	37	6	------
Other stationmen	11	4	213	1	------	------	3709	------	------	------	30	------	------	273	3	2
Enginemen	9	3	169	1	------	2	1383	------	1	3	[11]8	3	1	58	3	1
Firemen	9	3	171	1	------	1	1299	------	1	3	[11]7	3	------	58	3	1
Conductors	15	9	102	1	------	1	922	------	1	3	[11]7	3	------	34	3	1
Other trainmen	19	11	288	1	------	------	3658	------	1	6	[11]17	6	------	114	5	------
Machinists	10	5	109	------	------	------	1033	------	------	1	------	5	6	24	1	1
Carpenters	11	4	148	------	------	------	1552	------	------	3	------	1	------	58	1	------
Other shopmen	24	8	827	1	------	------	8562	------	------	------	2	7	------	248	13	------
Section foremen	11	6	124	2	------	1	902	------	1	2	12	9	2	58	10	1
Other trackmen	106	23	656	30	------	5	6901	------	6	9	95	19	20	438	46	4
Switch tenders, crossing tenders and watchmen	------	------	25	------	------	------	780	------	------	3	------	6	------	26	------	------
Telegraph operators and dispatchers	------	------	108	------	------	------	769	------	------	------	1	3	------	9	------	------
Employees account floating equipment	------	------	------	------	------	------	2341	------	------	------	------	------	------	39	------	------
All other employees and laborers	12	5	382	------	------	------	7215	------	------	------	4	20	1	325	8	------
Totals	294	124	3711	44	------	12	44088	------	15	39	191	109	37	1915	112	12

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[1] Entire line.

[2] For eight months ending March 1, 1912; was then consolidated under San Diego and Southeastern Railway Company.

[3] From March 2 to June 30, 1912.

[4] Leased to Southern Pacific Company March 1, 1912.

[5] Began operating April 1, 1912.

[6] Includes station agents.

[7] Includes enginemen, firemen and conductors.

[8] Began operating January 1, 1912.

[9] Began operating May 1, 1912.

[10] No statistics reported.

[11] For seven months only—December 1, 1911, to June 30, 1912.

TABLE II. Average Daily Compensation of Officers and Employees of California Railroads on June 30, 1912.

Officers and employees.	Amador Central Railroad Company[11]	Arcata and Mad River Railroad Company	Atchison, Topeka & Santa Fe Railway Company	Bay Point and Clayton Railroad Company[11]	Boca and Loyalton Railroad Company	Bucksport and Elk River Railroad Company	Butte County Railroad Company	California Western Railroad and Navigation Company	Camino, Placerville and Lake Tahoe Railroad Company[10]	Cement, Tolenas and Tidewater Railroad Company[8]	Colusa and Lake Railroad Company	Diamond and Caldor Railway Company	Eureka and Freshwater Railway Company[11]	Hanford and Summit Lake Railway Company[4]	Holton Interurban Railway Company	Iron Mountain Railway Company[11]
General officers			$13 22		$2 87	$2 84	$3 49	$2 94		$3 64	$0 66	$10 58			$3 53	
Other officers			7 31		1 64		2 71	4 52		5 70	4 93	3 90			2 50	
General office clerks			2 60		1 68		3 94			1 92					1 73	
Station agents			2 67		3 11		2 71	3 29		2 64	72	1 63			2 50	
Other stationmen		[6]$2 33	2 33		2 69		2 30			2 20	2 04				1 66	
Enginemen			6 23		4 16	3 45	4 66	3 45	$4 00	3 50	2 48	4 80			3 63	
Firemen			3 88		3 10		3 35	2 65	2 50			3 25			2 85	
Conductors			5 75		3 67	3 35	4 58	3 40		[9]10 50	2 46	3 85			3 12	
Other trainmen		[7]3 01	3 76		2 80		3 47	2 70	2 50		1 97	3 00				
Machinists			4 34		4 35		2 64	2 85			2 50	4 00				
Carpenters		2 78	3 46		3 23		3 00	2 60				3 61				
Other shopmen			2 84		2 98		3 00	2 43			2 06	3 27				
Section foremen		3 02	2 57		2 29	2 75	2 76	2 80	3 00		2 00	2 72			2 76	
Other trackmen		2 13	1 28		1 59	2 25	2 00	1 78	3 00		1 51	2 18				
Switch tenders, crossing tenders and watchmen			1 55				82									
Telegraph operators and dispatchers			3 50													
Employees account floating equipment			3 09													
All other employees and laborers		2 51	2 43		2 46			2 03			86	2 66				
Average including general officers			2 70		2 42	2 88	2 57	2 43			1 75	3 01			2 67	
Average excluding general officers		2 46	2 68		2 40	2 90	2 66	2 41	2 40		1 80	2 80			2 53	

TABLE II. Average Daily Compensation of Officers and Employees of California Railroads on June 30, 1912—Continued.

Officers and employees.	Klamath Lake Railroad Company[1]	Lake Tahoe Railway and Transportation Company[11]	Los Angeles and San Diego Beach Railway Company	McCloud River Railroad Company	Mill Valley and Mt. Tamalpais Scenic Railway	Nevada-California Oregon Railway Company[1]	Nevada County Narrow Gauge Railroad Company	Northwestern Pacific Railroad Company	Ocean Shore Railroad Company	Pacific Coast Railway Company	Pajaro Valley Consolidated Railroad Company	Porterville Northeastern Railway Company[4]	Quincy Western Railway Company	Sacramento Valley and Eastern Railway Company	San Diego and Arizona Railway Company	San Diego and Cuyamaca Railway Company[2]
General officers	$7 64	-------	$4 57	$13 84	$10 66	$7 72	$5 19	$16 60	$13 23	$11 06	$5 92	-------	-------	$6 28	$8 29	$7 66
Other officers	-------	-------	3 86	5 95	6 70	5 54	-------	7 61	5 75	5 77	-------	-------	-------	-------	11 76	3 03
General office clerks	-------	-------	1 64	3 32	2 30	3 02	2 49	2 99	2 87	3 13	3 95	-------	-------	3 28	3 27	2 78
Station agents	2 67	-------	2 45	3 28	-------	2 38	3 01	2 46	2 52	2 64	2 68	-------	-------	1 63	3 50	2 22
Other stationmen	-------	-------	1 52	2 47	-------	1 92	1 79	2 00	2 37	2 12	2 25	-------	-------	-------	2 49	2 19
Enginemen	4 44	-------	3 65	4 50	3 93	4 77	3 71	4 83	4 41	4 04	3 41	-------	-------	5 00	4 19	3 98
Firemen	3 54	-------	2 44	3 33	2 24	3 00	2 61	2 91	2 59	2 65	2 33	-------	-------	3 08	2 48	2 80
Conductors	3 47	-------	2 69	4 43	2 85	3 40	3 31	4 37	3 22	3 67	3 61	-------	-------	4 00	4 19	3 46
Other trainmen	3 54	-------	2 39	3 33	2 36	2 68	2 48	3 22	2 64	2 75	2 30	-------	-------	3 00	2 76	2 79
Machinists	-------	-------	4 94	4 26	3 05	3 76	3 76	3 01	3 44	4 51	3 75	-------	-------	-------	3 52	3 56
Carpenters	2 90	-------	3 13	3 28	3 48	3 23	3 82	2 68	4 32	3 15	-------	-------	-------	-------	2 92	3 51
Other shopmen	-------	-------	2 22	2 97	4 51	2 90	3 02	2 83	2 95	2 60	2 75	-------	-------	-------	3 09	2 43
Section foremen	2 87	-------	2 79	3 03	2 78	2 17	2 85	3 14	2 88	2 29	2 46	-------	-------	-------	3 11	2 33
Other trackmen	2 32	-------	1 50	2 03	2 01	1 93	2 16	2 12	1 62	2 02	2 19	-------	-------	-------	1 78	1 50
Switch tenders, crossing tenders and watchmen	-------	-------	-------	-------	-------	-------	-------	2 47	1 33	-------	-------	-------	-------	-------	-------	-----
Telegraph operators and dispatchers	-------	-------	-------	4 43	-------	-------	-------	3 67	3 66	4 14	-------	-------	-------	-------	-------	-----
Employees account floating equipment	-------	-------	-------	-------	-------	-------	-------	3 16	-------	-------	-------	-------	-------	-------	-------	-----
All other employees and laborers	1 54	-------	2 19	2 91	3 16	2 66	1 49	2 98	4 27	3 11	2 88	-------	-------	1 92	3 20	-----
Average including general officers	-------	-------	2 45	3 33	-------	2 68	2 84	2 80	-------	2 79	2 99	-------	-------	3 20	3 28	2 52
Average excluding general officers	-------	-------	2 35	2 95	-------	2 46	2 63	2 77	-------	2 68	2 71	-------	-------	2 63	3 17	2 41

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[1] Entire line.

[2] For eight months ending March 1, 1912; then consolidated under San Diego and Southeastern Railway Company.

[7] Includes engineers, firemen and conductors.

[8] Began operating January 1, 1912.

[9] Average for firemen, conductors and other trainmen.

TABLE II. Average Daily Compensation of Officers and Employees of California Railroads on June 30, 1912—Continued.

Officers and employees.	San Diego and Southeastern Railway Company[3]	San Diego Southern Railway Company[2]	San Pedro, Los Angeles and Salt Lake Railroad Company[1]	Santa Maria Valley Railroad Company[5]	Sierra Railway Company of California	Sierra and Mohawk Railway Company	Southern Pacific Company[1]	South San Francisco Belt Railway Company	Stockton Terminal and Eastern Railroad Company	Sugar Pine Railway Company	Sunset Railway Company	Tonopah and Tidewater Railroad Company	Ventura County Railway Company	Western Pacific Railway Company	Yosemite Valley Railroad Company	Yreka Railroad Company
General officers	$18 99	$16 94	$11 89	$4 04	-------	------	$17 93	-------	$3 89	$6 91	-------	$11 16	$1 83	$24 76	$5 74	-----
Other officers	5 09	4 80	7 44	-------	-------	------	8 63	-------	4 54	5 74	$6 57	6 48	4 05	7 88	6 97	$6 20
General office clerks	3 39	3 34	2 84	-------	-------	------	2 66	-------	-------	2 09	3 29	3 01	------	3 28	3 59	-----
Station agents	2 33	2 66	2 76	3 31	-------	$1 45	[11]	-------	3 06	3 21	3 74	3 26	1 64	2 70	2 32	-----
Other stationmen	2 01	2 06	2 13	2 04	-------	------	[11]	-------	2 62	-------	2 98	-------	------	2 46	2 11	2 19
Enginemen	3 49	3 96	5 01	3 99	-------	3 35	[11]	-------	3 60	4 09	[12]6 03	6 40	3 77	5 93	4 61	3 67
Firemen	2 69	2 50	3 12	3 35	-------	2 76	[11]	-------	2 62	2 78	[12]3 85	4 14	2 85	3 78	2 76	2 37
Conductors	3 20	2 98	4 80	3 97	-------	2 28	[11]	-------	3 74	4 07	[12]5 32	6 00	3 64	5 17	4 19	2 91
Other trainmen	2 73	2 70	3 36	2 65	-------	------	[11]	-------	2 89	2 77	[12]3 75	3 76	3 07	3 49	3 17	-----
Machinists	3 45	3 66	3 55	-------	-------	------	[11]	-------	3 08	2 86	-------	3 45	3 68	4 28	3 75	3 00
Carpenters	3 01	3 06	2 51	-------	-------	------	[11]	-------	3 82	2 85	-------	4 01	2 86	3 47	2 94	-----
Other shopmen	2 66	2 55	2 42	3 66	-------	------	[11]	-------	-------	-------	2 61	3 38	2 85	2 47	2 63	-----
Section foremen	2 45	2 46	2 31	2 88	-------	2 13	2 91	-------	2 46	2 66	2 79	3 27	3 08	2 26	2 55	2 60
Other trackmen	1 52	1 51	1 27	1 75	-------	1 81	1 56	-------	1 90	1 73	1 29	1 75	2 03	1 66	1 52	2 00
Switch tenders, crossing tenders and watchmen	-------	-------	2 36	-------	-------	------	[11]	-------	-------	2 11	-------	2 29	------	1 74	------	-----
Telegraph operators and dispatchers	-------	-------	3 20	-------	-------	------	3 18	-------	-------	-------	2 80	4 36	------	4 12	------	-----
Employees account floating equipment	-------	-------	-------	-------	-------	------	[11]	-------	-------	-------	-------	-------	------	3 04	------	-----
All other employees and laborers	2 09	2 31	2 27	-------	-------	------	[11]	-------	-------	2 51	3 02	3 51	2 11	2 67	3 39	-----
Average including general officers	2 43	2 43	2 59	-------	-------	------	[11]	-------	2 97	3 00	-------	3 17	2 58	2 73	2 49	2 80
Average excluding general officers	2 37	2 32	2 56	-------	-------	2 10	[11]	-------	2 81	2 75	2 34	3 08	2 63	2 65	2 45	-----

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[3] From March 2 to June 30, 1912.

[4] Leased to Southern Pacific Company March 1, 1912.

[5] Began operating April 1, 1912.

[6] Includes station agents.

[10] Began operating May 1, 1912.

[11] No statistics reported.

[12] For seven months—December 1, 1911, to June 30, 1912.

JAPANESE.

JAPANESE STATISTICS.

Tables 1 to 27, on Japanese engaged in commercial pursuits in California, are compiled from data gathered during the investigation of Japanese of this State by the previous commissioner of this bureau, in accordance with an Act of the Legislature of 1909. The data collected on Japanese engaged in business was very complete, covering a record of 2,548 establishments, and showing conditions during the year 1909.

Of the 2,548 establishments investigated, 1,934 were owned by individuals, 550 by partnerships and 64 by corporations. The capital invested in these establishments was, in most instances, very small, 68.7 per cent of the total having a capital of less than $1,000. The total aggregate capital invested, exclusive of that represented by banks, was $4,075,226. The total annual business transacted by these establishments amounted to $16,114,407, of which about 37.0 per cent was carried on with white persons. The total annual rent paid by these Japanese business houses was over $900,000. Data obtained from 435 establishments engaged in the sale of food, clothing, general merchandise, etc., and whose annual business amounted to over $10,000,000, showed that 47.8 per cent of all their wares were produced in the United States, while 51.9 per cent were imported from Japan and 0.3 per cent from other countries.

The following table shows the length of time these establishments had been in business at the time of the investigation:

Date of establishment.	Number of establishments.	Per cent of totals.
1909	494	19.4
1908	617	24.2
1907	438	17.2
1906	405	15.9
1905	170	6.7
1904	129	5.1
1903	81	3.2
1902	70	2.7
1901	26	1.0
1900	16	0.6
Prior to 1900	58	2.3
Not known	44	1.7
Totals	2,548	100.0

In the conduct of these establishments, 6,556 persons were engaged, of which number 2,546 males and 562 females—principally wives of owners—were classed as employers and 3,214 males and 234 females as employés. In addition there were employed by these Japanese firms 35 male and 20 female white persons. In 1,410 instances, or 55.3 per cent of the total, the establishments were conducted entirely by the owners without the assistance of any employés. In 1,782 establishments, or 69.9 per cent of the total, employés were lodged at the place of work.

The sanitary condition of the places of work was reported as follows: Sanitation good, 81.8 per cent; sanitation fair, 16.8 per cent; sanitation bad, 1.4 per cent.

The sanitary condition of the lodging places was reported as follows: Sanitation good, 68.5 per cent; fair, 27.3 per cent; bad, 4.2 per cent.

Of the total number of establishments investigated 1,568, or 61.5 per cent, were located in the seven larger cities, as follows:

Los Angeles	505 establishments.
San Francisco	497 establishments.
Oakland	178 establishments.
Sacramento	154 establishments.
Fresno	101 establishments.
San Jose	79 establishments.
Stockton	54 establishments.

Although San Francisco did not have the largest number of establishments, 34.0 per cent of all the capital was represented there, and 40.2 per cent of the total business transacted by these Japanese firms was done in that city.

Ten hours constituted the prevailing number of hours that the Japanese employés were obliged to work, and the ruling rates of wages paid to them by their Japanese employers were from $25 to $35 per month with board, and $40 to $50 per month without board.

In tables 28 to 32 will be found a record of the land owned and leased by Japanese in the State of California, as shown by the official records of the various county assessors and recorders. Figures gathered in 1909 are also given in order to show the increases and decreases of land ownership during the past three years.

The following extracts from the above mentioned tables will show at a glance the important facts relating to the ownership of land by Japanese:

Farm Land Owned by Japanese.

(Assessment rolls March, 1912.)

Number of farms		331
Total number of acres		12,726
Assessed value—		
Land	$478,990 00	
Improvements	130,615 00	
Total		$609,605 00

Comparison of Assessment Rolls of 1909 and 1912.

Total number of acres, 1909	10,791
Total number of acres, 1912	12,726
Increase—number of acres	1,935
Total assessed valuation, 1909	$397,298 00
Total assessed valuation, 1912	609,605 00
Increase—assessed valuation	212,307 00

Town Lots Owned by Japanese.

(Assessment rolls March, 1912.)

Number		218
Assessed value—		
Land	$136,955 00	
Improvements	98,720 00	
Total		$235,675 00

TABLE No. 1. CITY OF SAN FRANCISCO.

Japanese Establishments. (Showing nature of ownership, capital invested and total annual transactions, tabulated by industries.)

Industry.	Total number of establishments	Nature of ownership. Individual Owner	Partnership	Corporation	Approximate total capital invested	Total annual transactions
Amusements	--------	--------	--------	--------	--------	--------
Artists	2	2	--------	--------	$550	$1,600
Bamboo furniture	5	4	1	--------	575	8460
Banks	2	--------	--------	2	*	*
Baths	8	6	2	--------	6,350	12,080
Barber shops	15	14	1	--------	3,425	20,035
Bazaars	20	10	9	1	191,000	351,500
Bicycles	--------	--------	--------	--------	--------	--------
Billiards	17	15	2	--------	12,810	24,470
Books and stationery	6	5	1	--------	20,150	47,000
Brokers	3	1	--------	2	150,000	290,000
Cigar stands	--------	--------	--------	--------	--------	--------
Clothes and furnishings	7	5	2	--------	22,100	47,250
Cleaning and dyeing	26	21	5	--------	5,055	27,940
Confectionery	5	3	2	--------	7,100	38,880
Draying	1	--------	--------	1	2,000	12,000
Drugs	3	3	--------	--------	6,000	9,500
Employment agents	6	4	2	--------	1,000	6,400
Florists	3	2	--------	1	13,500	15,800
Gardeners	--------	--------	--------	--------	--------	--------
General merchandise	11	5	6	--------	36,000	194,300
Groceries	7	4	2	1	12,700	87,000
Hospitals	1	--------	1	--------	1,500	12,000
Hotels	14	14	--------	--------	26,000	63,880
House cleaners	94	21	69	4	7,435	175,614
Importers	13	2	4	7	578,000	3,949,000
Labor contractors	3	2	1	--------	51,500	77,800
Laundries	16	3	11	2	64,600	172,400
Lodgings	32	30	2	--------	13,350	50,720
Markets, fish, fruit, etc.	8	6	2	--------	4,100	28,300
Photographers	8	8	--------	--------	9,750	31,100
Printers	6	4	1	1	54,500	120,600
Provisions, wholesale	2	--------	1	1	13,000	142,000
Restaurants	38	31	7	--------	21,725	236,700
Shoemakers	72	71	1	--------	14,950	82,740
Shooting galleries	5	5	--------	--------	3,600	7,800
Tailors	23	19	4	--------	5,330	59,850
Watchmakers	8	8	--------	--------	15,850	28,610
Wood workers	5	3	2	--------	3,700	12,400
Miscellaneous	2	--------	1	1	4,800	34,000
Totals	497	331	142	24	*$1,384,005	*$6,479,729

*Investment and annual transactions of banks not included.

TABLE No. 2. CITY OF LOS ANGELES.

Japanese Establishments. (Showing nature of ownership, capital invested and total annual transactions, tabulated by industries.)

Industry.	Total number of establishments	Nature of ownership.			Approximate total capital invested	Total annual transactions
		Individual Owner	Partnership	Corporation		
Amusements	2	2			$2,900	$13,800
Artists	4	4			1,400	4,050
Bamboo furniture	1		1		1,500	8,609
Banks	2			2	*	*
Barber shops	55	53	2		36,410	96,605
Baths	7	7			5,600	9,540
Bazaars	9	2	3	4	242,000	320,700
Bicycles	1	1			1,500	6,000
Billiards	39	24	15		33,245	65,300
Books and stationery	5	4	1		9,750	34,700
Brokers	1			1	20,000	35,000
Cigar stands	1	1			300	1,200
Clothes and furnishings	5	5			17,000	55,000
Cleaning and dyeing	3	3			315	4,700
Confectionery	13	11	2		7,510	36,000
Draying	1	1			800	1,400
Drugs	2	1	1		4,500	15,000
Employment agents	12	11	1		880	13,150
Fish camps						
Florists	19	11	8		29,100	32,820
Gardeners	11	3	8		1,095	15,705
General merchandise	16	8	5	3	100,900	960,400
Groceries	15	12	3		18,700	80,310
Hospitals	3	2	1		2,000	15,440
Hotels	9	8	1		23,250	39,550
House cleaners	17	5	12		1,515	20,335
Importers	5	2	2	1	45,500	104,200
Laundries	19	10	9		13,350	87,680
Lodgings	90	84	5	1	68,540	153,370
Markets, fish, fruit, etc.	16	13	3		10,440	95,620
Photographers	4	4			2,300	7,500
Printers	2		1	1	17,500	62,000
Provisions, wholesale	5		5		20,900	184,000
Restaurants	76	72	4		39,095	356,412
Shoemakers	15	15			2,070	13,857
Shooting galleries						
Tailors	9	7	2		6,250	85,960
Watchmakers	5	4	1		11,600	23,180
Wood workers	1	1			300	1,800
Miscellaneous	5	4	1		2,950	8,300
Totals	505	395	97	13	*$802,965	*$3,069,193

*Investment and annual transactions of banks not included.

TABLE No. 3. CITY OF OAKLAND.

Japanese Establishments. (Showing nature of ownership, capital invested and total annual transactions, tabulated by industries.)

Industry.	Total number of establishments	Nature of ownership.			Approximate total capital invested	Total annual transactions
		Individual Owner	Partnership	Corporation		
Amusements	--------	--------	--------	--------	--------	--------
Artists	--------	--------	--------	--------	--------	--------
Bamboo furniture	2	1	1	--------	$600	$2,600
Banks	1	--------	--------	1	*	*
Barber shops	9	9	--------	--------	2,150	7,650
Baths	9	9	--------	--------	7,150	11,000
Bazaars	3	1	2	--------	7,000	16,000
Billiards	4	3	1	--------	2,800	5,150
Books and stationery	3	2	1	--------	5,000	11,800
Brokers	--------	--------	--------	--------	--------	--------
Cigar stands	--------	--------	--------	--------	--------	--------
Clothes and furnishings	2	1	1	--------	5,000	6,000
Cleaning and dyeing	10	8	2	--------	2,185	19,100
Confectionery	4	3	1	--------	1,000	3,150
Draying	1	--------	1	--------	650	1,000
Employment agents	2	2	--------	--------	100	740
Florists	4	3	1	--------	5,600	5,740
Gardeners	1	--------	1	--------	50	1,500
General merchandise	4	2	1	1	18,000	63,600
Groceries	9	7	1	1	11,950	49,500
Hospitals	2	1	--------	1	1,450	7,500
Hotels	--------	--------	--------	--------	--------	--------
House cleaners	15	4	11	--------	625	31,190
Importers	--------	--------	--------	--------	--------	--------
Labor contractors	--------	--------	--------	--------	--------	--------
Laundries	7	3	2	2	36,100	92,600
Lodgings	10	8	2	--------	4,050	18,900
Markets, fish, fruit, etc.	3	3	--------	--------	700	15,000
Photographers	2	--------	2	--------	2,900	5,100
Printers	1	1	--------	--------	2,500	6,500
Provisions, wholesale	--------	--------	--------	--------	--------	--------
Restaurants	16	9	7	--------	12,900	87,100
Shoemakers	40	39	1	--------	4,060	44,030
Shooting galleries	4	4	--------	--------	1,600	5,500
Tailors	9	8	1	--------	4,300	33,100
Watchmakers	1	1	--------	--------	100	900
Wood workers	--------	--------	--------	--------	--------	--------
Miscellaneous	--------	--------	--------	--------	--------	--------
Totals	178	132	40	6	*$140,520	*$551,950

*Investment and annual transactions of banks not included.

TABLE No. 4. CITY OF SACRAMENTO.

Japanese Establishments. (Showing nature of ownership, capital invested and total annual transactions, tabulated by industries.)

Industry.	Total number of establishments	Nature of ownership.			Approximate total capital invested	Total annual transactions
		Individual Owner	Partnership	Corporation		
Amusements	3	3			$4,850	$11,300
Artists						
Bamboo furniture						
Banks	2			2	*	*
Barber shops	16	14	2		4,320	12,970
Baths	2	2			400	700
Bazaars	1	1			400	1,500
Bicycles	1	1			400	900
Billiards	16	15	1		9,500	13,340
Books and stationery						
Brokers	1	1			*	*
Cigar stands						
Clothes and furnishings	5	3	2		16,500	34,000
Cleaning and dyeing						
Confectionery	9	8	1		3,720	10,300
Draying						
Drugs	3	3			2,125	6,700
Employment agents	2	2			150	1,500
Fish camps						
Florists						
Gardeners						
General merchandise	7	3	3	1	53,950	256,000
Groceries	6	3	3		21,200	131,500
Hospitals	1	1			300	3,000
Hotels	1	1			1,500	2,000
House cleaners						
Importers						
Labor contractors						
Laundries	6	5	1		2,625	27,700
Lodgings	26	22	4		29,700	32,460
Markets, fish, fruit, etc.	4	4			2,000	17,000
Photographers	3	3			3,000	10,500
Printers	3	1	2		6,075	13,750
Provisions, wholesale						
Restaurants	28	25	3		15,750	84,520
Shoemakers						
Shooting galleries						
Tailors	4	4			675	9,800
Watchmakers	2	2			5,300	4,000
Wood workers	1	1			350	1,000
Miscellaneous	1	1			100	300
Totals	154	129	22	3	*$184,890	*$686,740

*Investment and annual transactions of banks and brokers not included.

TABLE No. 5. CITY OF FRESNO.

Japanese Establishments. (Showing nature of ownership, capital invested and total annual transactions, tabulated by industries.)

Industry.	Total number of establishments	Nature of ownership.			Approximate total capital invested	Total annual transactions
		Individual Owner	Partnership	Corporation		
Amusements	2	1	1		$5,500	$9,000
Artists						
Bamboo furniture						
Banks	2			2	*	*
Barber shops	11	11			4,680	11,760
Baths	3	2	1		7,300	8,100
Bazaars	1	1			2,000	6,500
Bicycles	2	2			3,700	9,500
Billiards	9	7	2		8,945	17,580
Books and stationery	1	1			1,500	3,000
Brokers						
Cigar stands	2	2			1,350	4,700
Clothes and furnishings						
Cleaning and dyeing						
Confectionery	6	6			3,270	12,820
Draying	1	1			250	600
Drugs	1	1			2,000	3,500
Employment agents						
Fish camps						
Florists						
Gardeners						
General merchandise	7	6		1	67,800	1,082,500
Groceries	1			1	50,000	65,000
Hospitals						
Hotels	2	2			49,500	25,000
House cleaners						
Importers	1	1			8,000	35,000
Labor contractors	3	3			5,500	10,500
Laundries	6	4	2		2,300	17,400
Lodgings	7	6	1		8,100	25,760
Markets, fish, fruit, etc.	1		1		5,000	30,000
Photographers	1	1			1,500	2,000
Printers	1	1			2,500	2,000
Provisions, wholesale	1		1		1,000	18,000
Restaurants	16	10	6		11,120	101,700
Shoemakers	2	2			300	1,600
Shooting galleries	2	2			450	1,300
Tailors	1		1		2,000	14,000
Watchmakers	6	6			12,300	20,500
Miscellaneous	2	2			3,250	11,600
Totals	101	81	16	4	*$271,115	*$1,550,920

*Investment and annual transactions of banks not included.

TABLE No. 6. CITY OF SAN JOSE.

Japanese Establishments. (Showing nature of ownership, capital invested and total annual transactions, tabulated by industries.)

Industry.	Total number of establishments	Nature of ownership.			Approximate total capital invested	Total annual transactions
		Individual Owner	Partnership	Corporation		
Amusements	1	1			$3,000	$1,000
Artists						
Bamboo furniture						
Banks	2			2	*	*
Barber shops	7	7			3,100	4,220
Baths	1	1			800	900
Bazaars	1	1			5,000	10,000
Bicycles	1	1			1,200	2,500
Billiards	6	6			4,950	4,290
Books and stationery	2	2			3,700	8,500
Brokers						
Cigar stands						
Clothes and furnishings	1	1			2,000	6,000
Cleaning and dyeing	1	1			100	520
Confectionery	7	7			3,600	4,760
Draying	1		1		650	1,200
Drugs						
Employment agents						
Fish camps						
Florists	1	1			2,000	1,000
Gardeners						
General merchandise	7	4	3		15,400	35,050
Groceries						
Hospitals	1			1	10,000	3,500
Hotels	1		1		5,000	3,000
House cleaners						
Importers						
Labor contractors						
Laundries	4	2	2		5,700	23,280
Lodgings	15	15			20,450	17,672
Markets, fish, fruit, etc.	2	1	1		750	5,400
Photographers	2	2			850	2,160
Printers						
Provisions, wholesale						
Restaurants	11	11			9,950	15,710
Shoemakers	1	1			150	1,800
Shooting galleries						
Tailors						
Watchmakers	2	2			850	5,200
Wood workers						
Miscellaneous	3	3			4,500	4,200
Totals	79	70	8	1	$103,700	$161,862

TABLE No. 7. CITY OF STOCKTON.

Japanese Establishments. (Showing nature of ownership, capital invested and total annual transactions, tabulated by industries.)

Industry.	Total number of establishments	Nature of ownership.			Approximate total capital invested	Total annual transactions
		Individual Owner	Partnership	Corporation		
Amusements						
Artists						
Bamboo furniture						
Banks						
Barber shops	5	3	2		$2,800	$8,000
Baths	4	4			1,300	4.950
Bazaars						
Bicycles						
Billiards	7	6	1		7,400	14,150
Books and stationery	1	1			1,000	3,000
Brokers						
Cigar stands	1	1			100	1,200
Clothes and furnishings						
Cleaning and dyeing	1	1			25	400
Confectionery	1	1			700	3.600
Draying	3	3			880	2,500
Drugs						
Employment agents						
Fish camps						
Florists						
Gardeners						
General merchandise	2	1	1		21,500	80.000
Groceries	1	1			3,000	10,000
Hospitals						
Hotels	3	2	1		3,600	9,400
House cleaners						
Importers						
Labor contractors	1	1				750
Laundries	4	1	3		3.350	22.600
Lodgings	5	5			2,800	13,700
Markets, fish, fruit, etc.	4	4			450	10,800
Photographers						
Printers						
Provisions, wholesale	1	1			600	1,800
Restaurants	8	8			5.050	43,600
Shoemakers	1	1			200	1.500
Shooting galleries						
Tailors						
Watchmakers	1	1			250	750
Wood workers						
Miscellaneous						
Totals	54	46	8		$55,005	$232,700

TABLE No. 8. SUMMARY OF STATE.

Japanese Establishments. (Showing nature of ownership, capital invested and total annual transactions, tabulated by industries.)

Industry.	Total number of establishments	Nature of ownership.			Approximate total capital invested	Total annual transactions
		Individual Owner	Partnership	Corporation		
Amusements	17	14	3	--------	$28,450	$68,100
Artists	8	8	--------	--------	2,250	9,450
Bamboo furniture	8	5	3	--------	2,675	19,669
Banks	9	--------	--------	9	*	*
Barber shops	199	188	11	--------	76,125	225,170
Baths	43	40	3	--------	32,450	53,540
Bazaars	52	25	19	8	580,900	918,800
Bicycles	13	12	1	--------	15,800	32,200
Billiards	225	179	46	--------	198,760	315,056
Books and stationery	21	18	3	--------	42,000	109,450
Brokers	7	3	1	3	170,400	329,200
Cigar stands	5	5	--------	--------	2,050	7,600
Clothes and furnishings	21	16	5	--------	62,900	149,050
Cleaning and dyeing	43	36	7	--------	7,730	53,600
Confectionery	64	58	6	--------	37,100	144,310
Draying	12	7	4	1	8,980	23,740
Drugs	11	10	1	--------	15,175	36,200
Employment agents	40	34	6	--------	2,410	29,530
Fish camps	17	5	12	--------	35,640	42,460
Florists	55	31	23	1	161,120	184,600
Gardeners	15	4	11	--------	1,338	18,995
General merchandise	142	83	45	14	656,700	3,762,918
Groceries	65	48	14	3	154,500	559,610
Hospitals	8	4	2	2	15,250	41,440
Hotels	50	43	7	--------	140,700	223,228
House cleaners	181	38	139	4	15,033	333,854
Importers	19	5	6	8	631,500	4,088,200
Labor contractors	57	45	10	2	98,030	209,250
Laundries	107	52	51	4	176,740	683,020
Lodgings	329	300	28	1	223,810	520,548
Markets, fish, fruit, etc.	55	45	10	--------	33,840	254,020
Photographers	26	24	2	--------	22,500	65,860
Printers	13	7	4	2	83,075	204,850
Provisions, wholesale	10	2	7	1	35,750	351,800
Restaurants	300	257	43	--------	175,385	1,433,092
Shoemakers	175	173	2	--------	27,380	192,447
Shooting galleries	16	16	--------	--------	6,425	19,100
Tailors	56	46	10	--------	20,755	219,410
Watchmakers	31	30	1	--------	50,450	90,340
Wood workers	8	6	2	--------	6,850	30,200
Miscellaneous	15	12	2	1	16,300	60,500
Totals	2548	1934	550	64	*$4,075,226	*$16,114,407

*Investment and annual transactions of banks not included.

TABLE No. 9. SUMMARY OF STATE.

Japanese Establishments. (Showing nature of ownership, capital invested and total annual transactions, tabulated by counties.)

County.	Total number of establishments	Nature of ownership.			Approximate total capital invested	Total annual transactions
		Individual Owner	Partnership	Corporation		
Alameda	330	227	97	6	$266,540	$979,375
Butte	21	13	8	--------	15,300	96,700
Contra Costa	24	19	5	--------	43,440	51,600
Fresno	165	135	25	5	363,015	1,772,460
Kern	20	17	3	--------	13,200	121,140
Kings	30	26	4	--------	45,250	122,330
Los Angeles	604	465	123	16	919,226	3,379,413
Madera	1	1	--------	--------	500	360
Marin	14	6	8	--------	6,735	49,950
Mendocino	4	4	--------	--------	6,550	17,400
Monterey	42	33	8	1	103,150	133,968
Napa	2	2	--------	--------	850	4,920
Orange	12	6	6	--------	20,135	57,740
Placer	7	5	2	--------	8,700	45,900
Riverside	31	19	10	2	58,955	147,906
Sacramento	212	181	28	3	227,890	841,060
San Benito	4	4	--------	--------	2,900	7,700
San Bernardino	51	44	7	--------	27,250	103,150
San Diego	28	21	5	2	50,585	114,770
San Francisco	497	331	142	24	1,384,005	6,479,729
San Joaquin	75	64	11	--------	76,535	323,780
Santa Barbara	39	35	4	--------	32,820	79,346
San Mateo	17	10	7	--------	10,425	58,608
Santa Clara	114	97	16	1	142,930	284,372
Santa Cruz	36	31	4	1	56,640	162,340
Solano	27	23	4	--------	32,620	118,650
Sonoma	8	3	5	--------	4,900	23,830
Tehama	8	8	--------	--------	3,350	44,750
Tulare	42	33	8	1	68,380	200,670
Ventura	47	40	5	2	47,700	183,790
Yolo	14	12	2	--------	14,350	40,900
Yuba	22	19	3	--------	20,400	65,800
Totals	2548	1934	550	64	$4,075,226	$16,114,407

TABLE No. 10. CITY OF SAN FRANCISCO.

Japanese Establishments. (Showing number and sex of persons engaged, tabulated by industries.)

Industry.	Total number of establishments	Number of persons engaged.					Number of establishments operated solely by owners
		Total	Employers.		Employees.		
			Male	Female	Male	Female	
Amusements							
Artists	2	2	2				2
Bamboo furniture	5	6	5	1			5
Banks	2	9			9		
Barber shops	15	27	15	1	11		9
Baths	8	15	10	1	3	1	5
Bazaars	20	67	25	4	35	3	6
Bicycles							
Billiards	17	28	20	2	5	1	11
Books and stationery	6	18	7	1	10		2
Brokers	3	4	1		3		1
Cigar stands							
Clothes and furnishings	7	16	8		8		2
Cleaning and dyeing	26	48	31	8	8	1	18
Confectionery	5	17	7		10		
Draying	1	10			10		
Drugs	3	4	2		2		1
Employment agents	6	7	7				6
Fish camps							
Florists	3	7	5		2		2
Gardeners							
General merchandise	11	35	12		23		1
Groceries	7	19	8	3	8		2
Hospitals	1	5	2		1	2	
Hotels	14	42	12	7	21	2	2
House cleaners*	94	361			*361		
Importers	13	54	6		48		1
Labor contractors	3	4	4				
Laundries	16	276	46	2	217	11	
Lodgings	32	53	27	17	4	5	26
Markets, fish, fruit, etc.	8	16	9	4	3		5
Photographers	8	17	8	1	8		3
Printers	6	92	6		86		
Provisions, wholesale	2	11	2		9		
Restaurants	38	127	43	12	60	12	10
Shoemakers	72	84	73		11		62
Shooting galleries	5	8	5		1	2	3
Tailors	23	64	20	5	35	4	7
Watchmakers	8	10	8		2		6
Wood workers	5	18	9		9		3
Miscellaneous	2	5	3		2		1
Totals	497	1586	448	†69	1025	44	202

*Each house cleaner is an independent member of an agency through which work is secured.

†In most instances these are wives of owners.

TABLE No. 11. CITY OF LOS ANGELES.

Japanese Establishments. (Showing number and sex of persons engaged, tabulated by industries.)

Industry.	Total number of establishments	Number of persons engaged.					Number of establishments operated solely by owners
		Total	Employers.		Employees.		
			Male	Female	Male	Female	
Amusements	2	3	2	--------	1	--------	1
Artists	4	4	3	--------	--------	1	3
Bamboo furniture	1	6	2	--------	4	--------	--------
Banks	2	16	--------	--------	16	--------	--------
Barber shops	55	98	48	11	39	--------	30
Baths	7	9	6	2	1	--------	6
Bazaars	9	39	3	2	33	1	--------
Bicycles	1	1	--------	--------	1	--------	--------
Billiards	39	54	40	4	10	--------	30
Books	5	14	6	2	6	--------	1
Brokers	1	3	--------	--------	3	--------	--------
Cigar stands	1	1	1	--------	--------	--------	1
Clothes and furnishings	5	9	6	1	2	--------	3
Cleaning and dyeing	3	3	3	--------	--------	--------	3
Confectionery	13	20	12	2	6	--------	8
Draying	1	1	1	--------	--------	--------	1
Drugs	2	5	4	--------	1	--------	1
Employment agents	12	13	13	--------	--------	--------	8
Fish camps	--------	--------	--------	--------	--------	--------	--------
Florists	19	35	26	--------	9	--------	13
Gardeners	11	55	--------	--------	55	--------	--------
General merchandise	16	51	17	3	30	1	9
Groceries	15	27	16	7	3	1	12
Hospitals	3	13	4	1	6	2	--------
Hotels	9	28	9	4	13	2	2
House cleaners*	17	82	--------	--------	*82	--------	--------
Importers	5	10	3	--------	7	--------	2
Labor contractors	--------	--------	--------	--------	--------	--------	--------
Laundries	19	95	23	1	67	4	4
Lodgings	90	134	69	30	29	6	62
Markets, fish, fruit, etc.	16	31	16	6	9	--------	11
Photographs	4	7	4	1	2	--------	2
Printers	2	44	--------	--------	42	2	--------
Provisions, wholesale	5	22	13	--------	9	--------	--------
Restaurants	76	246	74	28	109	35	29
Shoemakers	15	17	15	--------	2	--------	13
Shooting galleries	--------	--------	--------	--------	--------	--------	--------
Tailors	9	31	9	1	19	2	4
Watchmakers	5	10	6	--------	4	--------	3
Wood workers	1	3	1	--------	2	--------	--------
Miscellaneous	5	9	6	1	2	--------	4
Totals	505	1249	461	†107	624	57	266

*Each house cleaner is an independent member of an agency, through which work is secured.

†In most instances these are wives of owners.

TABLE No. 12. CITY OF OAKLAND.

Japanese Establishments. (Showing number and sex of persons engaged, tabulated by industries.)

Industry.	Total number of establishments	Number of persons engaged.					Number of establishments operated solely by owners
		Total	Employers.		Employees.		
			Male	Female	Male	Female	
Amusements							
Artists							
Bamboo furniture	2	6	5		1		1
Banks	1	3			3		
Barber shops	9	12	8	1	3		6
Baths	9	17	7	8	2		7
Bazaars	3	6	4	1	1		2
Bicycles							
Billiards	4	5	4		1		3
Books and stationery	3	8	6	1	1		2
Brokers							
Cigar stands							
Clothes and furnishings	2	2	1	1			1
Cleaning and dyeing	10	22	13	4	3	2	9
Confectionery	4	6	3	2	1		3
Draying	1	1	1				1
Drugs							
Employment agents	2	2	2				2
Fish camps							
Florists	4	6	4	1	1		3
Gardeners	1	5			5		
General merchandise	4	16	2		13	1	
Groceries	9	13	7	3	3		8
Hospitals	2	5			4	1	
Hotels							
House cleaners*	15	70			*70		
Importers							
Labor contractors							
Laundries	7	126	16	1	103	6	
Lodgings	10	22	10	6	2	4	7
Markets, fish, fruit, etc.	3	5	3	2			3
Photographers	2	5	4		1		1
Printers	1	7	1		6		
Provisions, wholesale							
Restaurants	16	63	23	3	30	7	1
Shoemakers	40	49	39		10		30
Shooting galleries	4	8	4	1	1	2	2
Tailors	9	24	10	3	11		3
Watchmakers	1	1	1				1
Wood workers							
Miscellaneous							
Totals	178	515	178	†38	276	23	96

*Each house cleaner is an independent member of an agency, through which work is secured.

†In most instances these are wives of owners.

TABLE No. 13. CITY OF SACRAMENTO.

Japanese Establishments. (Showing number and sex of persons engaged, tabulated by industries.)

Industry.	Total number of establishments	Number of persons engaged.					Number of establishments operated solely by owners
		Total	Employers.		Employees.		
			Male	Female	Male	Female	
Amusements	3	11	5	1	4	1	2
Artists	--------	--------	--------	--------	--------	--------	--------
Bamboo furniture	--------	--------	--------	--------	--------	--------	--------
Banks	2	7	--------	--------	7	--------	--------
Barber shops	16	34	24	1	9	--------	12
Baths	2	3	2	1	--------	--------	2
Bazaars	1	1	1	--------	--------	--------	1
Bicycles	1	1	1	--------	--------	--------	1
Billiards	16	29	17	11	1	--------	15
Books and stationery	--------	--------	--------	--------	--------	--------	--------
Brokers	1	2	1	--------	1	--------	--------
Cigar stands	--------	--------	--------	--------	--------	--------	--------
Clothes and furnishings	5	13	8	1	4	--------	3
Cleaning and dyeing	--------	--------	--------	--------	--------	--------	--------
Confectionery	9	17	10	5	2	--------	7
Draying	--------	--------	--------	--------	--------	--------	--------
Drugs	3	4	4	--------	--------	--------	3
Employment agents	2	2	2	--------	--------	--------	2
Fish camps	--------	--------	--------	--------	--------	--------	--------
Florists	--------	--------	--------	--------	--------	--------	--------
Gardeners	--------	--------	--------	--------	--------	--------	--------
General merchandise	7	29	10	2	17	--------	2
Groceries	6	22	9	1	12	--------	2
Hospitals	1	2	1	1	--------	--------	1
Hotels	1	2	2	--------	--------	--------	1
House cleaners	--------	--------	--------	--------	--------	--------	--------
Importers	--------	--------	--------	--------	--------	--------	--------
Labor contractors	--------	--------	--------	--------	--------	--------	--------
Laundries	6	44	9	2	32	1	1
Lodgings	26	61	32	11	17	1	14
Markets, fish, fruit, etc.	4	10	4	3	3	--------	3
Photographers	3	8	2	1	5	--------	1
Printers	3	17	6	--------	11	--------	--------
Provisions, wholesale	--------	--------	--------	--------	--------	--------	--------
Restaurants	28	88	34	13	26	15	14
Shoemakers	--------	--------	--------	--------	--------	--------	--------
Shooting galleries	--------	--------	--------	--------	--------	--------	--------
Tailors	4	9	4	2	2	1	2
Watchmakers	2	2	2	--------	--------	--------	2
Wood workers	1	2	1	--------	1	--------	--------
Miscellaneous	1	2	1	1	--------	--------	1
Totals	154	422	192	*57	154	19	92

*In most instances these are wives of owners.

TABLE No. 14. CITY OF FRESNO.

Japanese Establishments. (Showing number and sex of persons engaged, tabulated by industries.)

Industry.	Total number of establishments	Number of persons engaged.					Number of establishments operated solely by owners
		Total	Employers.		Employees.		
			Male	Female	Male	Female	
Amusements	2	7	3		3	1	
Artists							
Bamboo furniture							
Banks	2	6			6		
Barber shops	11	18	11	3	4		7
Baths	3	8	5	1	2		1
Bazaars	1	1	1				1
Bicycles	2	3	1		2		
Billiards	9	11	11				9
Books and stationery	1	1	1				1
Brokers							
Cigar stands	2	2	1	1			2
Clothes and furnishings							
Cleaning and dyeing							
Confectionery	6	9	5	2	1	1	4
Draying	1	1	1				1
Drugs	1	1	1				1
Employments agents							
Fish camps							
Florists							
Gardeners							
General merchandise	7	32	5	2	23	2	1
Groceries	1	3			3		
Hospitals							
Hotels	2	5	2	1	1	1	1
House cleaners							
Importers	1	3	1	1	1		
Labor contractors	3	3	3				3
Laundries	6	33	9	1	21	2	1
Lodgings	7	15	8	3	3	1	4
Markets, fish, fruit, etc.	1	4	1		3		
Photographers	1	1	1				1
Printers	1	2	1		1		
Provisions, wholesale	1	2			2		
Restaurants	16	66	24	5	31	6	3
Shoemakers	2	2	2				2
Shooting galleries	2	2	2				2
Tailors	1	1	1				1
Watchmakers	6	6	6				6
Wood workers							
Miscellaneous	2	3	2	1			2
Totals	101	251	109	*21	107	14	54

*In most instances these are wives of owners.

TABLE No. 15. CITY OF SAN JOSE.

Japanese Establishments. (Showing number and sex of persons engaged, tabulated by industries.)

Industry.	Total number of establishments	Number of persons engaged.					Number of establishments operated solely by owners
		Total	Employers.		Employees.		
			Male	Female	Male	Female	
Amusements	1	2	1	--------	1	--------	--------
Artists	--------	--------	--------	--------	--------	--------	--------
Bamboo furniture	--------	--------	--------	--------	--------	--------	--------
Banks	--------	--------	--------	--------	--------	--------	--------
Barber shops	7	9	7	2	--------	--------	7
Baths	1	1	1	--------	--------	--------	1
Bazaars	1	1	1	--------	--------	--------	1
Bicycles	1	1	1	--------	--------	--------	1
Billiards	6	7	6	1	--------	--------	6
Books and stationery	2	3	2	1	--------	--------	2
Brokers	--------	--------	--------	--------	--------	--------	--------
Cigar stands	--------	--------	--------	--------	--------	--------	--------
Clothes and furnishings	1	4	1	--------	3	--------	--------
Cleaning and dyeing	1	2	1	1	--------	--------	1
Confectionery	7	8	5	--------	2	1	5
Draying	1	3	3	--------	--------	--------	1
Drugs	--------	--------	--------	--------	--------	--------	--------
Employment agents	--------	--------	--------	--------	--------	--------	--------
Fish camps	--------	--------	--------	--------	--------	--------	--------
Florists	1	1	1	--------	--------	--------	1
Gardeners	--------	--------	--------	--------	--------	--------	--------
General merchandise	7	11	10	1	--------	--------	7
Groceries	--------	--------	--------	--------	--------	--------	--------
Hospitals	1	2	--------	--------	1	1	--------
Hotels	1	4	2	2	--------	--------	1
House cleaners	--------	--------	--------	--------	--------	--------	--------
Importers	--------	--------	--------	--------	--------	--------	--------
Labor contractors	--------	--------	--------	--------	--------	--------	--------
Laundries	4	37	6	2	23	6	--------
Lodgings	15	24	12	7	4	1	11
Markets, fish, fruit, etc.	2	4	3	1	--------	--------	2
Photographers	2	3	2	1	--------	--------	2
Printers	--------	--------	--------	--------	--------	--------	--------
Provisions, wholesale	--------	--------	--------	--------	--------	--------	--------
Restaurants	11	23	11	11	1	--------	10
Shoemakers	1	1	1	--------	--------	--------	1
Shooting galleries	--------	--------	--------	--------	--------	--------	--------
Tailors	--------	--------	--------	--------	--------	--------	--------
Watchmakers	2	2	2	--------	--------	--------	2
Wood workers	--------	--------	--------	--------	--------	--------	--------
Miscellaneous	3	4	2	1	1	--------	2
Totals	79	157	81	*31	36	9	64

*In most instances these are wives of owners.

TABLE No. 16. CITY OF STOCKTON.

Japanese Establishments. (Showing number and sex of persons engaged, tabulated by industries.)

Industry.	Total number of establishments	Number of persons engaged.					Number of establishments operated solely by owners
		Total	Employers.		Employees.		
			Male	Female	Male	Female	
Amusements							
Artists							
Bamboo furniture							
Banks							
Barber shops	5	9	5	1	3		3
Baths	4	4	4				4
Bazaars							
Bicycles							
Billiards	7	10	7	3			7
Books and stationery	1	2	2				1
Brokers							
Cigar stands	1	1			1		
Clothes and furnishings							
Cleaning and dyeing	1	1		1			1
Confectionery	1	1		1			1
Draying	3	3	3				3
Drugs							
Employment agents							
Fish camps							
Florists							
Gardeners							
General merchandise	2	6	3	1	2		1
Groceries	1	2	1	1			1
Hospitals							
Hotels	3	6	4	2			3
House cleaners							
Importers							
Labor contractors	1	1	1				1
Laundries	4	30	8		22		1
Lodgings	5	10	4	5	1		4
Markets, fish, fruits, etc.	4	5	4		1		3
Photographers							
Printers							
Provisions	1	2	1	1			1
Restaurants	8	24	7	6	7	4	3
Shoemakers	1	1	1				1
Shooting galleries							
Tailors							
Watchmakers	1	1	1				1
Wood workers							
Miscellaneous							
Totals	54	119	56	*22	37	4	40

*In most instances these are wives of owners.

TABLE No. 17. SUMMARY OF STATE.

Japanese Establishments. (Showing number and sex of persons engaged, tabulated by industries.)

Industry.	Total number of establishments	Number of persons engaged.					Number of establishments operated solely by owners
		Total	Employers.		Employees.		
			Male	Female	Male	Female	
Amusements	17	49	21	2	24	2	7
Artists	8	8	7	--------	--------	1	7
Bamboo furniture	8	18	12	1	5	--------	6
Banks	9	58	--------	--------	58	--------	--------
Barber shops	199	307	198	31	78	--------	145
Baths	43	72	42	19	10	1	33
Bazaars	52	91	43	9	33	6	13
Bicycles	13	16	11	--------	5	--------	9
Billiards	225	324	233	49	40	2	183
Books and stationery	21	49	25	7	17	--------	11
Brokers	7	12	5	--------	7	--------	3
Cigar stands	5	5	3	1	1	--------	4
Clothing and furnishings	21	46	25	4	17	--------	10
Cleaning and dyeing	43	78	49	15	11	3	34
Confectionery	64	110	60	20	27	3	43
Draying	12	25	14	--------	11	--------	10
Drugs	11	17	13	1	3	--------	8
Employment agents	40	44	42	1	1	--------	35
Fish camps	17	65	43	--------	22	--------	9
Florists	55	177	78	3	96	--------	27
Gardeners	15	65	5	--------	60	--------	3
General merchandise	142	392	164	20	202	6	59
Groceries	65	135	72	18	43	2	38
Hospitals	8	27	7	2	12	6	1
Hotels	50	143	56	24	52	11	20
House cleaners*	181	722	--------	--------	*722	--------	--------
Importers	19	67	10	1	56	--------	3
Labor contractors	57	77	63	1	13	--------	44
Laundries	107	1005	189	17	747	52	12
Lodgings	329	570	301	145	94	30	232
Markets, fish, fruit, etc.	55	106	59	19	27	1	40
Photographers	26	50	27	7	16	--------	16
Printers	13	162	14	--------	146	2	--------
Provisions, wholesale	10	39	17	2	20	--------	2
Restaurants	300	952	334	123	399	96	123
Shoemakers	175	207	175	--------	32	--------	145
Shooting galleries	16	24	15	3	2	4	12
Tailors	56	146	54	12	74	6	23
Watchmakers	31	39	32	--------	7	--------	25
Wood workers	8	31	12	--------	19	--------	3
Miscellaneous	15	26	16	5	5	--------	12
Totals	2548	**6556	†2546	‡562	3214	234	1410

*Each house cleaner is an independent member of an agency through which work is secured.

**35 males and 20 female white persons employed by Japanese not included.

†Includes 250 engaged in more than one industry. Actual number, 2,296.

‡In most instances these are wives of owners.

TABLE No. 18. SUMMARY OF STATE.

Japanese Establishments. (Showing number and sex of persons engaged, tabulated by counties.)

County.	Total number of establishments	Number of persons engaged.					Number of establishments operated solely by owners
		Total	Employers.		Employees.		
			Male	Female	Male	Female	
Alameda	330	1000	310	59	605	26	171
Butte	21	54	25	7	21	1	15
Contra Costa	24	60	27	3	30	--------	10
Fresno	165	359	172	43	126	18	103
Kern	20	31	20	6	5	--------	10
Kings	30	45	27	7	10	1	18
Los Angeles	604	1450	578	113	700	59	329
Madera	1	2	1	1	--------	--------	1
Marin	14	57	11	3	42	1	5
Mendocino	4	12	4	3	5	--------	1
Monterey	42	106	40	10	47	9	21
Napa	2	8	2	--------	6	--------	--------
Orange	12	29	21	1	7	--------	9
Placer	7	15	9	5	1	--------	6
Riverside	31	66	40	1	23	2	17
Sacramento	212	542	255	75	187	25	125
San Benito	4	8	4	2	2	--------	2
San Bernardino	51	83	55	6	20	2	42
San Diego	28	62	29	6	24	3	15
San Francisco	497	1586	448	69	1025	44	202
San Joaquin	75	159	76	31	46	6	52
San Mateo	17	60	17	3	36	4	6
Santa Barbara	39	59	41	7	10	1	30
Santa Clara	114	234	116	36	70	12	88
Santa Cruz	36	78	35	7	26	10	24
Solano	27	68	30	11	26	1	18
Sonoma	8	22	15	3	2	2	6
Tehama	8	36	8	2	24	2	2
Tulare	42	80	43	20	16	1	33
Ventura	47	90	48	8	32	2	32
Yolo	14	29	14	4	11	--------	7
Yuba	22	66	25	10	29	2	10
Totals	2548	**6556	†2546	‡562	3214	234	1410

**35 male and 20 female white persons employed by Japanese not included.

†Includes 250 engaged in more than one industry. Actual number 2,296.

‡In most instances these are wives of owners.

TABLE No. 19. CITY OF SAN FRANCISCO.

Japanese Establishments. (Showing sanitary conditions of places of work and of lodgings, tabulated by industries.)

Industry.	Sanitary condition of place of work.			Number of establishments at which employees lodge	Sanitary condition of lodgings.		
	Good.	Fair.	Bad.		Good.	Fair.	Bad.
Amusements							
Artists	2			2	2		
Bamboo furniture	5			5	4		1
Banks	2						
Barber shops	7		1	7	4	3	
Baths	20			7	7		
Bazaars	14		1	10	9		1
Bicycles							
Billiards	16	1		14	10	3	1
Books and stationery	6			4	4		
Brokers	3			1	1		
Cigar stands							
Clothing and furnishings	7			4	4		
Cleaning and dyeing	24	2		26	19	6	1
Confectionery	3	1	1	5	3	1	1
Draying	1						
Drugs	3			3	3		
Employment agents	5	1		5	4	1	
Fish camps							
Florists	3			3	3		
Gardeners							
General merchandise	11			5	4		1
Groceries	7			3	2	1	
Hospitals	1			1	1		
Hotels	12	2		14	11	3	
House cleaners					73	13	5
Importers	13			4	4		
Labor contractors	3			2	1	1	
Laundries	15	1		14	12	2	
Lodgings	24	6	2	32	24	6	2
Markets, fish, fruit, etc.	7	1		5	2	3	
Photographers	8			5	4	1	
Printers	6			2	2		
Provisions, wholesale	2			2	2		
Restaurants	26	10	2	32	15	11	6
Shoemakers	59	12	1	70	53	12	5
Shooting galleries	1	3	1	3	1		2
Tailors	22	1		20	20		
Watchmakers	7	1		3	2	1	
Wood workers	4		1	5	4	1	
Miscellaneous	2			1	1		
Totals	351	42	10	319	315	69	26

TABLE No. 20. CITY OF LOS ANGELES.

Japanese Establishments. (Showing sanitary conditions of places of work and of lodgings, tabulated by industries.)

Industry.	Sanitary condition of place of work.			Number of establishments at which employees lodge	Sanitary condition of lodgings.		
	Good.	Fair.	Bad.		Good.	Fair.	Bad.
Amusements	2			1	1		
Artists	4			4	4		
Bamboo furniture	1						
Banks	2						
Barber shop	40	14	1	24	12	12	
Baths	6	1		4	3	1	
Bazaars	9			3	3		
Bicycles	1						
Billiards	28	10	1	18	9	7	2
Books and stationery	5			2	2		
Brokers	1			1	1		
Cigar stands	1			1	1		
Clothes and furnishings	5			1	1		
Cleaning and dyeing	3			3	3		
Confectionery	8	4	1	9	2	7	
Draying		1		1		1	
Drugs	2			1	1		
Employment agents	7	5		8	2	6	
Fish camps							
Florists	17	2		16	7	8	1
Gardeners					1	9	1
General merchandise	13	3		9	4	5	
Groceries	11	4		11	6	5	
Hospitals	3			3	3		
Hotels	5	4		8	4	4	
House cleaners					1	12	3
Importers	5			1	1		
Labor contractors							
Laundries	11	8		13	7	6	
Lodgings	44	45	1	66	26	37	3
Markets, fish, fruit, etc.	8	8		6	2	4	
Photographers	4			3	3		
Printers	2			1	1		
Provisions, wholesale	2	3		2	1	1	
Restaurants	46	30		47	25	22	
Shoemakers	8	7		8	3	5	
Shooting galleries							
Tailors	7	2		2	1	1	
Watchmakers	4	1		3	2	1	
Wood workers		1		1		1	
Miscellaneous	2	2	1	2	1	1	
Totals	317	155	5	283	144	156	10

TABLE No. 21. CITY OF OAKLAND.

Japanese Establishments. (Showing sanitary conditions of places of work and of lodgings, tabulated by industries.)

Industry.	Sanitary condition of place of work.			Number of establishments at which employees lodge	Sanitary condition of lodgings.		
	Good.	Fair.	Bad.		Good.	Fair.	Bad.
Amusements	--------	--------	--------	--------	--------	--------	--------
Artists	--------	--------	--------	--------	--------	--------	--------
Bamboo furniture	2	--------	--------	2	2	--------	--------
Banks	1	--------	--------	--------	--------	--------	--------
Barber shops	8	1	--------	8	7	1	--------
Baths	8	1	--------	9	6	2	1
Bazaars	3	--------	--------	2	2	--------	--------
Bicycles	--------	--------	--------	--------	--------	--------	--------
Billiards	4	--------	--------	2	2	--------	--------
Books and stationery	3	--------	--------	3	2	1	--------
Brokers	--------	--------	--------	--------	--------	--------	--------
Cigar stands	--------	--------	--------	--------	--------	--------	--------
Clothes and furnishings	2	--------	--------	2	2	--------	--------
Cleaning and dyeing	10	--------	--------	8	7	1	--------
Confectionery	4	--------	--------	3	2	1	--------
Draying	1	--------	--------	1	1	--------	--------
Drugs	--------	--------	--------	--------	--------	--------	--------
Employment agents	2	--------	--------	2	1	1	--------
Fish camps	--------	--------	--------	--------	--------	--------	--------
Florists	4	--------	--------	4	4	--------	--------
Gardeners	--------	--------	--------	--------	1	--------	--------
General merchandise	4	--------	--------	4	3	1	--------
Groceries	8	1	--------	8	6	2	--------
Hospitals	2	--------	--------	2	2	--------	--------
Hotels	--------	--------	--------	--------	--------	--------	--------
House cleaners	--------	--------	--------	--------	9	6	--------
Importers	--------	--------	--------	--------	--------	--------	--------
Labor contractors	--------	--------	--------	--------	--------	--------	--------
Laundries	7	--------	--------	7	7	--------	--------
Lodgings	9	1	--------	9	6	3	--------
Markets, fish, fruit, etc.	3	--------	--------	3	2	1	--------
Photographers	2	--------	--------	2	2	--------	--------
Printers	1	--------	--------	1	1	--------	--------
Provisions, wholesale	--------	--------	--------	--------	--------	--------	--------
Restaurants	12	3	1	12	10	--------	2
Shoemakers	35	5	--------	38	25	13	--------
Shooting galleries	4	--------	--------	3	1	2	--------
Tailors	8	1	--------	8	7	1	--------
Watchmakers	1	--------	--------	--------	--------	--------	--------
Wood workers	--------	--------	--------	--------	--------	--------	--------
Miscellaneous	--------	--------	--------	--------	--------	--------	--------
Totals	148	13	1	143	120	36	3

TABLE No. 22. CITY OF SACRAMENTO.

Japanese Establishments. (Showing sanitary conditions of places of work and of lodgings, tabulated by industries.)

Industry.	Sanitary condition of place of work.			Number of establishments at which employees lodge	Sanitary condition of lodgings.		
	Good.	Fair.	Bad.		Good.	Fair.	Bad.
Amusements	2	1		1	1		
Artists							
Bamboo furniture							
Banks	2						
Barber shops	15	1		12	12		
Baths	2			2	2		
Bazaars	1			1	1		
Bicycles	1			1	1		
Billiards	14	2		14	13	1	
Books and stationery							
Brokers		1					
Cigar stands							
Clothes and furnishings	2	3		1	1		
Cleaning and dyeing							
Confectionery	9			9	9		
Draying							
Drugs	2	1		2	2		
Employment agents	1	1		2	1	1	
Fish camps							
Florists							
Gardeners							
General merchandise	6	1		6	5	1	
Groceries	6			4	4		
Hospitals	1			1	1		
Hotels	1			1	1		
House cleaners							
Importers							
Labor contractors							
Laundries	5	1		6	5	1	
Lodgings	24	2		26	24	2	
Markets, fish, fruit, etc.	4			4	4		
Photographers	3						
Printers	3						
Provisions, wholesale							
Restaurants	28			26	26		
Shoemakers							
Shooting galleries							
Tailors	2	2		2	2		
Watchmakers	1	1					
Wood workers		1					
Miscellaneous	1			1	1		
Totals	136	18		122	116	6	

TABLE No. 23. CITY OF FRESNO.

Japanese Establishments. (Showing sanitary conditions of places of work and of lodgings, tabulated by industries.)

Industry.	Sanitary condition of place of work.			Number of establishments at which employees lodge	Sanitary condition of lodgings.		
	Good.	Fair.	Bad.		Good.	Fair.	Bad.
Amusements	2	--------	--------	--------	--------	--------	--------
Artists	--------	--------	--------	--------	--------	--------	--------
Bamboo furniture	--------	--------	--------	--------	--------	--------	--------
Banks	2	--------	--------	1	1	--------	--------
Barber shops	9	2	--------	6	2	4	--------
Baths	3	--------	--------	3	3	--------	--------
Bazaars	1	--------	--------	--------	--------	--------	--------
Bicycles	2	--------	--------	2	2	--------	--------
Billiards	9	--------	--------	5	1	3	1
Books and stationery	1	--------	--------	--------	--------	--------	--------
Brokers	--------	--------	--------	--------	--------	--------	--------
Cigar stands	1	1	--------	1	--------	1	--------
Clothing and furnishings	--------	--------	--------	--------	--------	--------	--------
Cleaning and dyeing	--------	--------	--------	--------	--------	--------	--------
Confectionery	6	--------	--------	5	2	3	--------
Draying	1	--------	--------	--------	--------	--------	--------
Drugs	1	--------	--------	--------	--------	--------	--------
Employment agents	--------	--------	--------	--------	--------	--------	--------
Fish camps	--------	--------	--------	--------	--------	--------	--------
Florists	--------	--------	--------	--------	--------	--------	--------
Gardeners	--------	--------	--------	--------	--------	--------	--------
General merchandise	7	--------	--------	7	5	2	--------
Grocers	1	--------	--------	1	1	--------	--------
Hospitals	--------	--------	--------	--------	--------	--------	--------
Hotels	2	--------	--------	2	2	--------	--------
House cleaners	--------	--------	--------	--------	--------	--------	--------
Importers	1	--------	--------	--------	--------	--------	--------
Labor contractors	3	--------	--------	2	2	--------	--------
Laundries	4	2	--------	6	1	5	--------
Lodgings	3	4	--------	7	2	5	--------
Markets, fish, fruit, etc.	1	--------	--------	--------	--------	--------	--------
Photographers	1	--------	--------	1	1	--------	--------
Printers	1	--------	--------	--------	--------	--------	--------
Provisions, wholesale	1	--------	--------	--------	--------	--------	--------
Restaurants	8	8	--------	13	5	7	1
Shoemakers	2	--------	--------	1	1	--------	--------
Shooting galleries	2	--------	--------	2	--------	2	--------
Tailors	1	--------	--------	--------	--------	--------	--------
Watchmakers	6	--------	--------	--------	--------	--------	--------
Wood workers	--------	--------	--------	--------	--------	--------	--------
Miscellaneous	2	--------	--------	2	2	--------	--------
Totals	84	17	--------	67	33	32	2

TABLE No. 24. CITY OF SAN JOSE.

Japanese Establishments. (Showing sanitary conditions of places of work and of lodgings, tabulated by industries.)

Industry.	Sanitary condition of place of work.			Number of establishments at which employees lodge	Sanitary condition of lodgings.		
	Good.	Fair.	Bad.		Good.	Fair.	Bad.
Amusements	1			1	1		
Artists							
Bamboo furniture							
Banks							
Barber shops	7			5	4	1	
Baths	1			1	1		
Bazaars	1						
Bicycles	1			1	1		
Billiards	6			6	6		
Books and stationery	2			2	2		
Brokers							
Cigar stands							
Clothing and furnishings	1			1	1		
Cleaning and dyeing	1			1	1		
Confectionery	7			7	7		
Draying	1			1	1		
Drugs							
Employment agents							
Fish camps							
Florists	1			1	1		
Gardeners							
General merchandise	7			5	5		
Groceries							
Hospitals	1			1	1		
Hotels	1			1	1		
House cleaners							
Importers							
Labor contractors							
Laundries	4			4	4		
Lodgings	15			15	15		
Markets, fish, fruit, etc.	2			2	2		
Photographers	2			2	2		
Printers							
Provisions, wholesale							
Restaurants	11			11	11		
Shoemakers	1			1	1		
Shooting galleries							
Tailors							
Watchmakers	2			1		1	
Wood workers							
Miscellaneous	3			3	3		
Totals	79			73	71	2	

TABLE No. 25. CITY OF STOCKTON.

Japanese Establishments. (Showing sanitary conditions of places of work and of lodgings, tabulated by industries.)

Industry.	Sanitary condition of place of work.			Number of establishments at which employees lodge	Sanitary condition of lodgings.		
	Good.	Fair.	Bad.		Good.	Fair.	Bad.
Amusements							
Artists							
Bamboo furniture							
Banks							
Barber shops	5			5	1	1	3
Baths	4			4	2		2
Bazaars							
Bicycles							
Billiards	7			7	2	1	4
Books and stationery	1			1	1		
Brokers							
Cigar stands	1			1	1		
Clothing and furnishings							
Cleaning and dyeing	1			1	1		
Confectionery	1			1			1
Draying	2	1		3	2	1	
Drugs							
Employment agents							
Fish camps							
Florists							
Gardeners							
General merchandise	2			2		2	
Groceries	1			1	1		
Hospitals							
Hotels	2		1	3	2		1
House cleaners							
Importers							
Labor contractors	1			1	1		
Laundries	4			4	3	1	
Lodgings	4	1		5	3	1	1
Markets, fish, fruit, etc.	4			4	2	2	
Photographers							
Printers							
Provisions, wholesale	1			1	1		
Restaurants	6	2		8	5	2	1
Shoemakers	1			1	1		
Shooting galleries							
Tailors							
Watchmakers	1						
Wood workers							
Miscellaneous							
Totals	49	4	1	53	29	11	13

TABLE No. 26. SUMMARY OF STATE.

Japanese Establishments. (Showing sanitary conditions of places of work and of lodgings, tabulated by industries.)

Industry.	Sanitary condition of place of work.			Number of establishments at which employees lodge	Sanitary condition of lodgings.		
	Good.	Fair.	Bad.		Good.	Fair.	Bad.
Amusements	15	2		4	3	1	
Artists	8			7	7		
Bamboo furniture	8			7	6		1
Banks	9			1	1		
Barber shops	156	30	3	131	90	35	6
Baths	37	4	2	39	26	8	5
Bazaars	52			15	15		
Bicycles	12	1	2	11	8	3	9
Billiards	193	30		172	124	39	
Books and stationery	21			14	12	2	
Brokers	6	1		4	4		
Cigar stands	4	1		3	2	1	
Clothing and furnishings	18	3		10	10		
Cleaning and dyeing	41	2		41	33	8	
Confectionery	56	5	3	52	37	12	3
Draying	7	5		8	4	4	
Drugs	10	1		8	7	1	
Employment agents	27	13		31	18	13	
Fish camps	14			5	1	5	6
Florists	53	2		50	33	15	2
Gardeners					5	11	1
General merchandise	130	12		115	93	21	1
Groceries	55	10		47	33	13	1
Hospitals	8			8	8		
Hotels	39	10	1	49	38	10	1
House cleaners					121	49	11
Importers	19			5	5		
Labor contractors	13			6	14	38	1
Laundries	91	16		99	76	23	
Lodgings	227	94	8	300	187	103	10
Markets, fish, fruit, etc.	42	12	1	37	24	11	2
Photographers	24	2		16	13	3	
Printers	13			4	4		
Provisions, wholesale	6	4		6	4	2	
Restaurants	221	72	7	235	156	63	16
Shoemakers	138	36	1	162	110	45	7
Shooting galleries	12	3	1	11	4	4	3
Tailors	48	8		41	36	5	
Watchmakers	28	3		11	7	4	
Wood workers	5	2	1	7	5	2	
Miscellaneous	11	3	1	10	8	2	
Totals	1877	387	31	1782	1392	556	86

TABLE No. 27. SUMMARY OF STATE.

Japanese Establishments. (Showing sanitary conditions of places of work and of lodgings, tabulated by counties.)

County.	Sanitary condition of place of work.			Number of establishments at which employees lodge	Sanitary condition of lodgings.		
	Good.	Fair.	Bad.		Good.	Fair.	Bad.
Alameda	232	39	4	250	199	92	14
Butte	20	1		20	12	7	1
Contra Costa	23	1		23	23		
Fresno	137	27	1	126	71	52	3
Kern	17	3		16	12	3	1
Kings	24			21	21		
Los Angeles	391	164	5	330	173	182	17
Madera	1			1	1		
Marin	8	1		9	13		1
Mendocino	4			4	4		
Monterey	27	8		31	19	19	
Napa	2			1	1		
Orange	9	3		10	9	1	
Placer	7			7	7		
Riverside	16	8		17	12	12	
Sacramento	182	23	7	179	161	11	7
San Benito	1	2		3	1	3	
San Bernardino	8	20	1	28	7	42	1
San Diego	26	1	1	5	4	1	
San Francisco	351	42	10	319	315	69	26
San Joaquin	70	4	1	65	50	12	13
San Mateo	13			13	17		
Santa Barbara	24	15		17	11	6	
Santa Clara	106	1		97	97	7	
Santa Cruz	23	11	1	33	18	15	1
Solano	23	4		27	23	4	
Sonoma	8			7	7		
Tehama	8			7	7		
Tulare	38	4		37	27	9	1
Ventura	43	4		43	37	6	
Yolo	13	1		14	11	3	
Yuba	22			22	22		
Totals	1877	387	31	1780	1392	556	86

TABLE No. 28. Farm Land Owned by Japanese in California.

(As shown by assessment rolls March, 1912.)

County.	Number of farms.	Total number of acres.	Assessed value.		
			Land.	Improvements.	Total assessed value.
Alameda	6	47	$39,650	$23,550	$63,200
Alpine					
Amador					
Butte					
Calaveras					
Colusa					
Contra Costa	2	31	12,380		12,380
Del Norte					
El Dorado					
Fresno	31	4,776	173,885	55,135	229,020
Glenn					
Humboldt					
Imperial					
Inyo					
Kern	5	100	1,170		1,170
Kings	13	577	14,415	1,905	16,320
Lake					
Lassen					
Los Angeles	27	459	31,580	2,220	33,800
Madera	4	100	3,200	400	3,600
Marin					
Mariposa					
Mendocino					
Merced	14	1,049	34,640	7,455	42,095
Modoc					
Mono					
Monterey	2	8	800	480	1,280
Napa	1	160	1,200	1,100	2,300
Nevada	1	320	820		820
Orange	5	41	3,880	310	4,190
Placer	26	732	13,035	7,300	20,335
Plumas					
Riverside	2	18	1,350	25	1,375
Sacramento	17	444	17,150	6,140	23,290
San Benito	3	60	1,950	100	2,050
San Bernardino	12	150	10,810	1,000	11,810
San Diego					
San Francisco					
San Joaquin	12	652	20,160	4,685	24,845
San Luis Obispo					
San Mateo	1	5	1,000		1,000
Santa Barbara					
Santa Clara	4	90	12,590	2,775	15,365
Santa Cruz	3	330	5,115	3,950	9,065
Shasta	1	82	330	225	555
Sierra					
Siskiyou					
Solano	11	814	19,470	3,760	23,230
Sonoma	2	66	3,900	2,000	5,900
Stanislaus	2	40	1,480	145	1,625
Sutter	1	16	240	440	680
Tehama					
Trinity					
Tulare	15	1,053	44,050	3,475	47,525
Tuolumne					
Ventura	2	24	520	150	670
Yolo	5	320	7,240	1,590	8,830
Yuba	1	162	980	300	1,280
Totals	331	12,726	$478,990	$130,615	$609,605

NOTE: Counties left blank show no land owned by Japanese.

TABLE 29. Farm Land Owned by Japanese in California.

(Comparison of assessment rolls of March, 1909 and March, 1912.)

County.	Total number of acres.			Total assessed value.		
	1909.	1912.	Increase* or decrease†	1909.	1912.	Increase* or decrease.†
Alameda	41	47	+6	$27,700	$63,200	+$35,500
Alpine						
Amador						
Butte						
Calaveras						
Colusa						
Contra Costa	29	31	+2	8,437	12,380	+3,943
Del Norte						
El Dorado						
Fresno	3,583	4,776	+1,193	129,187	229,020	+99,833
Glenn						
Humboldt						
Imperial						
Inyo						
Kern	40	100	+60	1,650	1,170	−480
Kings	79	577	+498	2,465	16,320	+13,855
Lake						
Lassen						
Los Angeles	591	459	−132	15,128	33,800	+18,672
Madera	80	100	+20	1,800	3,600	+1,800
Marin	21		−21	1,200		−1,200
Mariposa						
Mendocino						
Merced	3,250	1,049	−2,201	83,795	42,095	−41,700
Modoc						
Mono						
Monterey	5	8	+3	920	1,280	+360
Napa		160	+160		2,300	+2,300
Nevada	321	320	−1	820	820	
Orange	157	41	−116	6,290	4,190	−2,100
Placer	319	732	+413	15,880	20,335	+4,455
Plumas						
Riverside		18	+18		1,375	+1,375
Sacramento	593	444	−149	24,890	23,290	−1,600
San Benito		60	+60		2,050	+2,050
San Bernardino		150	+150		11,810	+11,810
San Diego						
San Francisco						
San Joaquin	100	652	+552	4,075	24,845	+20,770
San Luis Obispo						
San Mateo	11	5	−6	3,100	1,000	−2,100
Santa Barbara	15		−15	1,550		−1,550
Santa Clara	80	90	+10	13,230	15,365	+2,135
Santa Cruz	360	330	−30	10,515	9,065	−1,450
Shasta	82	82		555	555	
Sierra						
Siskiyou						
Solano	323	814	+491	15,510	23,230	+7,720
Sonoma	35	66	+31	1,900	5,900	+4,000
Stanislaus	80	40	−40	1,570	1,625	+55
Sutter		16	+16		680	+680
Tehama						
Trinity						
Tulare	578	1,053	+475	23,296	47,525	+24,229
Tuolumne						
Ventura		24	+24		670	+670
Yolo	18	320	+302	1,835	8,830	+6,995
Yuba		162	+162		1,280	+1,280
Totals	10,791	12,726	+1,935	$397,298	$609,605	+$212,307

NOTE: Counties left blank show no land owned by Japanese.
*Plus. †Minus.

TABLE 30. Town Lots Owned by Japanese in California.

(As shown by assessment rolls March, 1912.)

County.	Number of town lots.	Assessed value.		
		Land.	Improvements.	Total assessed value.
Alameda	36	$38,900	$10,400	$49,300
Alpine				
Amador				
Butte				
Calaveras				
Colusa				
Contra Costa	3	8,450	12,600	21,050
Del Norte				
El Dorado				
Fresno	61	34,340	41,355	75,695
Glenn	3	1,000	750	1,750
Humboldt				
Imperial				
Inyo				
Kern	4	1,215	1,350	2,565
Kings	4	520	1,655	2,175
Lake				
Lassen				
Los Angeles	23	3,470	90	3,560
Madera				
Marin				
Mariposa				
Mendocino				
Merced	2	1,785		1,785
Modoc				
Mono	1	150		150
Monterey	18	1,050		1,050
Napa				
Nevada	1	300	900	1,200
Orange				
Placer	4	395	1,430	1,825
Plumas				
Riverside	2	150	450	600
Sacramento	19	29,250	14,950	44,200
San Benito				
San Bernardino	2	185	100	285
San Diego				
San Francisco	5	4,920	550	5,470
San Joaquin	3	800	200	1,000
San Luis Obispo				
San Mateo	7	2,250	1,250	3,500
Santa Barbara				
Santa Clara	1	2,250	2,500	4,750
Santa Cruz	4	1,285	2,350	3,635
Shasta				
Sierra	1	150	150	300
Siskiyou				
Solano	2	300	250	550
Sonoma	3	1,950	1,650	3,600
Stanislaus				
Sutter				
Tehama				
Trinity				
Tulare	2	850	1,300	2,150
Tuolumne				
Ventura	6	940	1,890	2,830
Yolo				
Yuba	1	100	600	700
Totals	218	$136,955	$98,720	$235,675

NOTE: Counties left blank show no land owned by Japanese.

TABLE 31. Town Lots Owned by Japanese in California.

(Comparison of assessment rolls of March, 1909 and March, 1912.)

County.	Total assessed value.		
	1909.	1912.	Increase* or decrease.†
Alameda	$36,550	$49,300	+$12,750
Alpine			
Amador			
Butte			
Calaveras			
Colusa			
Contra Costa		21,050	+21,050
Del Norte			
El Dorado			
Fresno	44,557	75,695	+31,138
Glenn		1,750	+1,750
Humboldt			
Imperial			
Inyo			
Kern		2,565	+2,565
Kings	3,600	2,175	−1,425
Lake			
Lassen			
Los Angeles	39,027	3,560	−35,467
Madera			
Marin			
Mariposa			
Mendocino			
Merced	3,325	1,785	−1,540
Modoc			
Mono		150	+150
Monterey	3,320	1,050	−2,270
Napa	250		−250
Nevada	1,200	1,200	
Orange			
Placer	475	1,825	+1,350
Plumas			
Riverside	1,330	600	−730
Sacramento	25,350	44,200	+18,850
San Benito			
San Bernardino		285	+285
San Diego			
San Francisco	4,290	5,470	+1,180
San Joaquin		1,000	+1,000
San Luis Obispo			
San Mateo	650	3,500	+2,850
Santa Barbara	1,750		−1,750
Santa Clara	1,295	4,750	+3,455
Santa Cruz	3,275	3,635	+360
Shasta			
Sierra	350	300	−50
Siskiyou			
Solano	350	550	+200
Sonoma		3,600	+3,600
Stanislaus			
Sutter			
Tehama			
Trinity			
Tulare		2,150	+2,150
Tuolumne			
Ventura	1,950	2,830	+880
Yolo			
Yuba	1,800	700	−1,100
Totals	$174,694	$235,675	+$60,981

NOTE.—Counties left blank show no land owned by Japanese.

*Plus. †Minus.

TABLE 32. Farm Lands Leased to Japanese in California.

(These figures show only the leases recorded in the offices of the various recorders, and do not represent all the land leased to Japanese, as most of the share leases are not recorded.)

County.	Leases of record November 1, 1909.		Leases recorded from November 1, 1909 to December 1, 1912.	
	Number of leases.	Total acreage.[1]	Number of leases.	Total acreage.[2]
Alameda	2	11	4	96
Alpine				
Amador				
Butte				
Calaveras				
Colusa				
Contra Costa	5	1,237	1	284
Del Norte				
El Dorado	2	190		
Fresno	7	601	11	45
Glenn				
Humboldt				
Imperial	3	349	7	848
Inyo				
Kern				
Kings	1	5		
Lake				
Lassen				
Los Angeles	47	561	60	2,418
Madera				
Marin				
Mariposa				
Mendocino				
Merced	1	1,045		
Modoc				
Mono				
Monterey	21	1,284	15	1,741
Napa	2	64	1	
Nevada				
Orange	10	718	7	292
Placer	33	1,773	23	1,007
Plumas				
Riverside	1	40	1	40
Sacramento	110	5,076	87	4,682
San Benito			5	280
San Bernardino	2	11		
San Diego			1	10
San Francisco				
San Joaquin	18	4,068	18	1,787
San Luis Obispo				
San Mateo			1	3
Santa Barbara	2	313	7	327
Santa Clara	22	418	35	904
Santa Cruz	7	260	6	220
Shasta				
Sierra				
Siskiyou				
Solano	10	952	5	565
Sonoma	2	102	1	
Stanislaus			1	180
Sutter	2	170	2	452
Tehama	1	120		
Trinity				
Tulare			2	60
Tuolumne				
Ventura			2	77
Yolo	8	926	11	1,278
Yuba				
Totals	319	20,294	282	17,596

NOTE.—Counties left blank show no leases of record.

[1] In 24 instances acreage was not reported.

[2] In 32 instances acreage was not reported.

SOCIAL.

SOCIAL.

Table I.

In presenting statistics on divorce, only final decrees have been considered, no account being taken of interlocutory decrees.

During the fiscal year ending June 30, 1911, 25,991 marriages were recorded in the State of California. During the same period there were granted 3,700 final decrees of divorce, the percentage of divorce to marriage being 14.2 per cent, or about one divorce to every seven marriages. In the county of San Francisco there were 5,013 marriages and 1,028 divorces, or more than one divorce to every five marriages. In Los Angeles County there were 5,824 marriages and 731 divorces, or about one divorce to every eight marriages. In Alameda County there were 2,469 marriages and 438 divorces, or more than one divorce to every six marriages. Alpine and Mono were the only counties in which no divorces were granted. Marin County had 944 marriages and only 26 divorces, or less than one divorce to every 35 marriages. Very nearly this same ratio prevailed in both Orange County and San Luis Obispo County.

Of the total of 3,700 divorces granted in the State, 960 or 26.2 per cent were the result of actions in which husbands were plaintiffs, and 2,730 or 73.8 per cent were the result of actions in which wives were plaintiffs. In the county of San Francisco 25.3 per cent of the actions were brought by husbands, and 74.7 per cent by wives. In Los Angeles County 27.4 per cent were brought by husbands, and 72.6 per cent by wives. In Alameda County 24.0 per cent were brought by husbands, and 76.0 per cent by wives.

Of the total number of couples to whom divorces were granted, 2,373, or 64.2 per cent, were married in California; 1,023 couples, or 27.6 per cent, were married in the United States, excluding California; 127 couples, or 3.4 per cent, were married in foreign countries, while in 177 instances the place of marriage was not stated.

In San Francisco County 64.8 per cent were married in California and 24.2 per cent in the United States outside of California. In Los Angeles County 46.5 per cent were married in California and 45.7 per cent in the United States outside of California. In Alameda County 65.8 per cent were married in California and 22.4 per cent in the United States outside of California.

Table II.

Divorces were granted to couples married less than five years in 714 instances; to couples married five to ten years in 1,542 instances; to couples married eleven to twenty years in 933 instances; and to couples married over twenty years in 479 instances, representing respectively 19.3 per cent; 41.7 per cent; 25.2 per cent; and 12.9 per cent of the total. The percentages of the total—represented by couples married over ten years—were 38.1 per cent for the State as a whole; 33.2 per cent for the county of San Francisco; 39.1 per cent for the county of Los Angeles; and 38.8 per cent for the county of Alameda.

Table III.

Of the total number of divorces 156, or 4.2 per cent, were granted for adultery; 1,085, or 29.3 per cent, for extreme cruelty; 1,667, or 45.1 per cent, for wilful desertion; 609, or 16.5 per cent, for neglect and failure to provide; 141, or 3.8 per cent, for intemperance; and 35, or 0.9 per cent, for conviction of a felony.

Table IV.

Of the total of 3,700 couples to whom divorces were granted, 1,821, or 49.2 per cent, were without children. In San Francisco County 68.4 per cent of the couples were without children. In Los Angeles County 63.6 per cent; and in Alameda County 36.1 per cent. In the State there were about seven minor children to every ten divorces. In San Francisco County there were about five children to every ten divorces, while in Los Angeles and Alameda counties the ratio was about six children to every ten divorces. There were 2,547 minor children affected by the granting of divorces in the State. Of this number, 638, or 25.1 per cent, were less than five years of age; 963, or 37.8 per cent, from five to ten years of age; and 788, or 30.9 per cent, were over ten years of age. In 158 instances the ages were not given.

Table V.

During the fiscal year ending June 30, 1912, 28,969 marriages were recorded in the State. During the same period 3,949 final decrees of divorce were granted, the percentage of divorce to marriage being 13.6 per cent, or about one divorce to every seven marriages. In the county of San Francisco there were 5,500 marriages and 1,049 divorces, or about one divorce to every five marriages. In Los Angeles County there were 6,878 marriages and 941 divorces, or about one divorce to every seven marriages. In Alameda County there were 2,670 marriages and 482 divorces, or about one divorce to every six marriages. Alpine and Mono were the only counties in which no divorces were granted. In the counties of Marin, Modoc and Orange there were more than fifty marriages recorded to every divorce granted.

Of the total of 3,949 divorces granted in the State, 1,098, or 27.8 per cent, were the result of actions in which husbands were plaintiffs, and 2,851, or 72.2 per cent, were the result of actions in which wives were plaintiffs. In San Francisco County 25.6 per cent of the actions were brought by husbands and 74.4 per cent by wives. In Los Angeles County 28.2 per cent were brought by husbands and 71.8 per cent by wives. In Alameda County 27.8 per cent were brought by husbands and 72.2 per cent by wives.

Of the total number of couples to whom divorces were granted, 2,544, or 64.4 per cent, were married in California; 1,084, or 27.5 per cent, were married in the United States, excluding California; 155, or 3.9 per cent, were married in foreign countries; while in 166 instances the place of marriage was not stated. In San Francisco County 67.4 per cent were married in California and 23.0 per cent in the United States outside of California. Los Angeles County showed only 46.9 per cent married in California, with 42.9 per cent married in the United States outside of California. In Alameda County 67.8 per cent were married in California and 24.1 per cent in the United States outside of California.

Table VI.

Divorces were granted to couples married less than five years in 725 instances; to couples married from five to ten years in 1,664 instances; to couples married from eleven to twenty years in 1,050 instances; and to couples married over twenty years in 473 instances, representing, respectively, 18.4 per cent; 42.1 per cent; 26.6 per cent; and 12.0 per cent of the total. The percentages of the total represented by couples married over ten years were 38.6 per cent for the State as a whole; 34.5 per cent for the county of San Francisco; 38.9 per cent for the county of Los Angeles; and 40.9 per cent for the county of Alameda.

Table VII.

Of the total number of divorces granted, 141, or 3.6 per cent, were for adultery; 1,165, or 29.5 per cent, for extreme cruelty; 1,799, or 45.6 per cent, for wilful desertion; 664, or 16.8 per cent, for neglect and failure to provide; 140, or 3.5 per cent, for intemperance; and 34, or 0.9 per cent, for conviction of a felony.

Table VIII.

Of the total of 3,949 couples to whom divorces were granted, 2,069, or 52.4 per cent, were without children. In San Francisco County 49.5 per cent were without children; in Los Angeles County 66.5 per cent; and in Alameda County 68.3 per cent. In the State there were about seven minor children to every ten divorces; in San Francisco County about five; in Los Angeles County about six; and in Alameda County about seven. There were 2,622 minor children affected by the granting of divorces. Of this number, 649, or 24.8 per cent, were less than five years of age; 1,009, or 38.5 per cent, were from five to ten years of age; and 819, or 31.2 per cent, were over ten years. In 145 instances the ages were not given.

In the table following is given the number of marriages and divorces in the State of California for the six fiscal years ending June 30, 1912:

Fiscal year.	Number of marriages.	Number of divorces.	Percentage of divorce to marriage.
1906-07	22,734	2,177	9.6
1907-08	22,238	2,783	12.5
1908-09	22,244	3,087	13.9
1909-10	23,645	3,334	14.1
1910-11	25,991	3,700	14.2
1911-12	28,969	3,949	13.6

During the four fiscal years ending June 30, 1910, the percentage of divorce to marriage showed a marked increase in the State. In the fiscal year 1906-07 there existed the approximate ratio of one divorce to every ten marriages, while in 1909-10 this ratio had become, by yearly increases, one divorce to every seven marriages. Since 1909-10 the percentage has remained practically stationary, with even a slight decrease in the year just past—1911-12, when the ratio was approximately one divorce to every seven and one half marriages.

Much the same condition of affairs has existed in the three largest counties of the State. In the fiscal year 1906-07, the ratio in San Francisco County was one divorce to every eight marriages. By 1909-10 this ratio had become one divorce to every five marriages, and approximately this ratio was in force in the two succeeding years. In Los Angeles County the ratio increased from one divorce to eleven marriages in 1906-07; to one divorce to seven marriages in 1909-10, was one to eight in 1910-11, and again one to seven in 1911-12. In Alameda County the ratio was one to eighteen in 1906-07, had increased to one to six in 1909-10, and was one to six in both 1910-11 and 1911-12.

TABLE No. 1. Final Decrees of Divorce Granted in the State of California for the fiscal year ending June 30, 1911, showing percentage to number of marriages, plaintiffs, and place of marriage. (Tabulated by Counties.)

County.	Number of marriages	Number of divorces	Percentage of divorces to marriages	Plaintiff.		Where married.			
				Husband	Wife	California	United States excluding California	Foreign	Not stated
Alameda	2469	438	17.7	105	333	288	98	15	37
Alpine (no divorces granted).									
Amador	55	6	10.9	2	4	5	1	------	------
Butte	219	65	29.7	16	49	47	15	1	2
Calaveras	28	5	17.9	1	4	4	------	1	------
Colusa	34	5	14.7	1	4	5	------	------	------
Contra Costa	189	31	16.4	11	20	23	6	1	1
Del Norte	29	5	17.2	3	2	4	1	------	------
El Dorado	40	8	20.0	1	7	------	------	------	8
Fresno	800	105	13.1	25	80	72	28	4	1
Glenn	54	8	14.8	2	6	7	------	------	1
Humboldt	254	39	15.4	10	29	24	13	1	1
Imperial	89	12	13.5	3	9	7	5	------	------
Inyo	47	7	14.9	1	6	4	3	------	------
Kern	379	41	10.8	17	24	21	16	1	3
Kings	184	15	8.2	8	7	11	4	------	------
Lake	28	7	25.0	5	2	6	1	------	------
Lassen	40	3	7.5	1	2	3	------	------	------
Los Angeles	5824	731	12.6	200	531	340	334	19	38
Madera	63	7	11.1	1	6	5	1	------	1
Marin	944	26	2.8	7	19	23	3	------	------
Mariposa	15	2	13.3	------	2	2	------	------	------
Mendocino	173	25	14.5	9	16	20	4	1	------
Merced	120	14	11.7	3	11	11	3	------	------
Modoc	46	6	13.0	------	6	5	------	1	------
Mono (no divorces granted)	4								
Monterey	212	29	13.7	5	24	24	5	------	------
Napa	174	12	6.9	3	9	8	1	1	2
Nevada	104	13	12.5	5	8	9	3	1	------
Orange	992	31	3.1	10	21	18	13	------	------
Placer	82	15	18.3	5	10	12	3	------	------
Plumas	23	7	30.4	------	7	3	4	------	------
Riverside	349	35	10.0	9	26	27	8	------	------
Sacramento	978	135	13.8	31	104	105	23	1	6
San Benito	66	11	16.7	6	5	8	3	------	------
San Bernardino	543	53	9.8	15	38	35	15	1	2
San Diego	875	90	10.3	25	65	40	45	3	2
San Francisco	5013	1028	20.5	260	768	666	249	53	60
San Joaquin	545	82	15.1	22	60	65	13	3	1
San Luis Obispo	243	9	3.7	5	4	8	1	------	------
San Mateo	368	25	6.8	10	15	20	3	1	1
Santa Barbara	256	39	11.5	10	29	32	6	1	------
Santa Clara	912	124	13.6	26	98	83	29	4	8
Santa Cruz	276	46	16.7	10	36	32	10	4	------
Shasta	138	28	20.3	8	20	25	2	1	------
Sierra	17	3	17.6	------	3	3	------	------	------
Siskiyou	159	29	18.2	7	22	24	4	1	------
Solano	147	30	20.4	15	15	24	5	1	------
Sonoma	397	69	17.4	19	50	57	7	4	1
Stanislaus	194	26	13.4	2	24	17	7	1	1
Sutter	25	5	20.0	2	3	3	2	------	------
Tehama	94	25	26.6	5	20	19	6	------	------
Trinity	11	2	18.2	2	------	2	------	------	------
Tulare	266	30	11.3	10	20	20	10	------	------
Tuolumne	49	7	14.3	2	5	5	1	1	------
Ventura	184	19	10.3	3	16	13	6	------	------
Yolo	95	15	15.8	2	13	15	------	------	------
Yuba	77	17	22.1	4	13	14	3	------	------
Totals	25991	3700	14.2	970	2730	2373	1023	127	177

TABLE No. 2. Final Decrees of Divorce Granted in the State of California for the fiscal year ending June 30, 1911, showing length of time married. (Tabulated by Counties.

County.	Number of divorces	Length of time married.				
		Less than 5 years	5 to 10 years	11 to 20 years	Over 20 years	Not stated
Alameda	438	75	192	98	72	1
Alpine (no divorces granted).						
Amador	6	2	------	2	2	------
Butte	65	11	25	19	8	2
Calaveras	5	1	1	1	2	------
Colusa	5	1	2	1	1	------
Contra Costa	31	5	16	6	4	------
Del Norte	5	------	1	3	1	------
El Dorado	8	------	------	------	------	8
Fresno	105	23	39	22	21	------
Glenn	8	------	4	2	1	1
Humboldt	39	6	7	21	5	------
Imperial	12	2	9	------	1	------
Inyo	7	1	2	2	2	------
Kern	41	4	20	12	4	1
Kings	15	3	10	2	------	------
Lake	7	------	5	2	------	------
Lassen	3	1	1	------	1	------
Los Angeles	731	117	321	185	101	7
Madera	7	------	3	4	------	------
Marin	26	3	10	9	4	------
Mariposa	2	1	------	------	1	------
Mendocino	25	4	12	5	4	------
Merced	14	4	5	4	1	------
Modoc	6	3	2	------	1	------
Mono (no divorces granted).						
Monterey	29	7	11	9	2	------
Napa	12	------	4	2	6	------
Nevada	13	3	6	3	1	------
Orange	31	4	12	5	10	------
Placer	15	2	2	6	4	1
Plumas	7	1	1	5	------	------
Riverside	35	9	14	8	4	------
Sacramento	135	38	51	29	16	1
San Benito	11	2	2	6	------	1
San Bernardino	53	12	20	12	9	------
San Diego	90	19	23	22	25	1
San Francisco	1028	229	451	256	85	7
San Joaquin	82	23	31	20	8	------
San Luis Obispo	9	1	4	2	2	------
San Mateo	25	3	12	7	3	------
Santa Barbara	39	9	16	9	5	------
Santa Clara	124	17	53	37	17	------
Santa Cruz	46	11	20	9	6	------
Shasta	28	3	14	9	2	------
Sierra	3	------	1	1	1	------
Siskiyou	29	5	9	11	4	------
Solano	30	5	16	7	2	------
Sonoma	69	13	26	20	9	1
Stanislaus	26	8	9	5	4	------
Sutter	5	1	2	2	------	------
Tehama	25	6	8	6	5	------
Trinity	2	------	1	------	1	------
Tulare	30	6	13	8	3	------
Tuolumne	7	1	3	1	2	------
Ventura	19	1	10	6	2	------
Yolo	15	3	5	6	1	------
Yuba	17	5	5	4	3	------
Totals	3700	714	1542	933	479	32

TABLE No. 3. Final Decrees of Divorce Granted in the State of California for the fiscal year ending June 30, 1911, showing cause for divorce. (Tabulated by Counties.)

County.	Number of divorces	Cause of divorce.						
		Adultery	Extreme cruelty	Wilful desertion	Neglect and failure to provide	Intemperance	Conviction of a felony	Not stated
Alameda	438	9	171	187	46	22	3	------
Alpine (no divorces granted).								
Amador	6	------	2	3	1	------	------	------
Butte	65	3	13	27	17	5	------	------
Calaveras	5	------	3	1	1	------	------	------
Colusa	5	------	2	1	2	------	------	------
Contra Costa	31	3	11	13	4	------	------	------
Del Norte	5	------	3	2	------	------	------	------
El Dorado	8	------	2	4	2	------	------	------
Fresno	105	4	28	45	20	4	4	------
Glenn	8	2	3	2	1	------	------	------
Humboldt	39	2	8	18	7	1	3	------
Imperial	12	------	2	10	------	------	------	------
Inyo	7	------	3	2	2	------	------	------
Kern	41	4	10	23	2	1	------	1
Kings	15	3	5	6	------	1	------	------
Lake	7	------	2	5	------	------	------	------
Lassen	3	------	------	2	1	------	------	------
Los Angeles	731	63	151	348	118	43	7	1
Madera	7	------	3	3	1	------	------	------
Marin	26	6	6	7	6	1	------	------
Mariposa	2	------	------	1	------	------	1	------
Mendocino	25	1	6	10	7	1	------	------
Merced	14	------	5	6	3	------	------	------
Modoc	6	------	1	3	1	------	1	------
Mono (no divorces granted).								
Monterey	29	------	7	15	5	2	------	------
Napa	12	------	6	3	1	2	------	------
Nevada	13	------	4	5	2	1	------	1
Orange	31	------	4	24	1	1	1	------
Placer	15	3	4	6	2	------	------	------
Plumas	7	1	1	1	3	1	------	------
Riverside	35	1	8	18	8	------	------	------
Sacramento	135	3	52	42	30	6	1	1
San Benito	11	1	------	9	------	------	------	1
San Bernardino	53	3	11	32	5	------	2	------
San Diego	90	4	26	39	14	6	1	------
San Francisco	1028	19	337	451	192	21	6	2
San Joaquin	82	3	35	25	16	3	------	------
San Luis Obispo	9	------	1	8	------	------	------	------
San Mateo	25	------	5	13	4	3	------	------
Santa Barbara	39	5	7	18	5	3	1	------
Santa Clara	124	1	28	70	23	2	------	------
Santa Cruz	46	1	18	17	9	1	------	------
Shasta	28	2	8	13	3	2	------	------
Sierra	3	------	1	2	------	------	------	------
Siskiyou	29	1	10	7	9	1	1	------
Solano	30	2	13	10	2	2	1	------
Sonoma	69	2	24	33	7	2	1	------
Stanislaus	26	------	7	11	7	------	1	------
Sutter	5	2	------	3	------	------	------	------
Tehama	25	------	6	10	7	2	------	------
Trinity	2	------	------	2	------	------	------	------
Tulare	30	1	7	20	2	------	------	------
Tuolumne	7	------	1	5	1	------	------	------
Ventura	19	------	1	11	6	1	------	------
Yolo	15	------	8	7	------	------	------	------
Yuba	17	1	5	8	3	------	------	------
Totals	3700	156	1085	1667	609	141	35	7

TABLE No. 4. Final Decrees of Divorce Granted in the State of California for the fiscal year ending June 30, 1911, showing number and ages of minor children affected and number of families without children. (Tabulated by Counties.)

County.	Number of divorces	Number of families having no children	Number and ages of minor children affected. Number of children affected	Less than 5 years	5 to 10 years	Over 10 years	Ages not given	Number and ages not given
Alameda	438	158	284	92	110	77	5	105
Alpine (no divorces granted).								
Amador	6	------	4	1	------	------	3	4
Butte	65	------	62	13	27	21	1	34
Calaveras	5	3	2	1	------	1	------	------
Colusa	5	1	6	3	------	3	------	------
Contra Costa	31	8	15	1	11	3	------	14
Del Norte	5	1	7	------	4	1	2	------
El Dorado	8	4	6	------	1	------	5	------
Fresno	105	53	99	32	24	38	5	------
Glenn	8	3	17	3	7	7	------	------
Humboldt	39	4	29	6	17	3	3	16
Imperial	12	6	8	5	2	------	1	------
Inyo	7	3	14	2	5	7	------	------
Kern	41	23	31	10	7	14	------	------
Kings	15	10	8	8	------	------	------	------
Lake	7	6	2	------	1	1	------	------
Lassen	3	3	------	------	------	------	------	------
Los Angeles	731	465	451	88	185	145	33	1
Madera	7	2	4	2	1	1	------	3
Marin	26	6	21	8	8	4	1	6
Mariposa	2	1	2	------	------	2	------	------
Mendocino	25	8	12	2	1	3	6	8
Merced	14	3	13	2	8	3	------	5
Modoc	6	1	10	3	3	4	------	------
Mono (no divorces granted).								
Monterey	29	------	23	2	1	------	20	16
Napa	12	5	14	3	7	4	------	------
Nevada	13	------	16	6	9	1	------	2
Orange	31	24	20	5	6	8	1	2
Placer	15	2	20	4	6	8	2	3
Plumas	7	1	16	4	8	2	2	------
Riverside	35	------	30	8	10	8	4	17
Sacramento	135	57	92	27	33	32	------	26
San Benito	11	3	14	4	3	6	1	1
San Bernardino	53	21	53	7	26	19	1	------
San Diego	90	40	53	10	22	21	------	21
San Francisco	1028	703	512	129	199	151	33	14
San Joaquin	82	------	70	20	22	24	4	67
San Luis Obispo	9	4	5	1	1	3	------	2
San Mateo	25	11	22	4	3	15	------	3
Santa Barbara	39	------	49	14	16	19	------	19
Santa Clara	124	64	88	25	30	31	2	6
Santa Cruz	46	21	40	11	17	10	2	2
Shasta	28	11	36	9	16	10	1	------
Sierra	3	1	2	------	------	2	------	------
Siskiyou	29	1	27	8	7	10	2	14
Solano	30	5	20	12	4	4	------	12
Sonoma	69	31	78	17	29	26	6	3
Stanislaus	26	7	20	2	5	4	9	9
Sutter	5	3	3	1	2	------	------	------
Tehama	25	4	23	3	14	6	------	12
Trinity	2	1	2	1	1	------	------	------
Tulare	30	11	34	5	21	8	------	2
Tuolumne	7	4	5	------	1	4	------	------
Ventura	19	3	13	2	7	4	------	7
Yolo	15	4	20	6	8	4	2	------
Yuba	17	7	20	6	7	6	1	------
Totals	3700	1821	2547	638	963	788	158	456

TABLE No. 5. Final Decrees of Divorce Granted in the State of California for the fiscal year ending June 30, 1912, showing percentage to number of marriages, plaintiffs, and place of marriage. (Tabulated by Counties.)

County.	Number of marriages	Number of divorces	Percentage of divorces to marriages	Plaintiff.		Where married.			
				Husband	Wife	California	United States excluding California	Foreign	Not stated
Alameda	2670	482	18.1	134	348	327	116	17	22
Alpine (no divorces granted).									
Amador	55	9	16.4	4	5	8	------	1	------
Butte	227	42	18.5	13	29	27	12	1	2
Calaveras	38	8	21.1	4	4	7	1	------	------
Colusa	41	9	22.0	1	8	9	------	------	------
Contra Costa	195	17	8.7	2	15	14	3	------	------
Del Norte	24	7	29.2	1	6	6	1	------	------
El Dorado	39	7	18.0	2	5	7	------	------	------
Fresno	871	102	11.7	26	76	75	23	3	1
Glenn	67	6	9.0	1	5	3	3	------	------
Humboldt	307	34	11.1	8	26	21	11	2	------
Imperial	144	9	6.2	4	5	2	7	------	------
Inyo	32	6	18.8	3	3	3	3	------	------
Kern	415	57	13.7	16	41	31	20	2	4
Kings	238	24	10.1	5	19	17	6	------	1
Lake	33	10	30.3	1	9	9	1	------	------
Lassen	46	4	8.7	------	4	2	2	------	------
Los Angeles	6878	941	13.7	265	676	441	404	40	56
Madera	74	14	18.9	4	10	12	2	------	------
Marin	1109	18	1.6	7	11	13	4	1	------
Mariposa	11	7	63.6	3	4	5	2	------	------
Mendocino	182	36	19.8	11	25	32	2	1	1
Merced	126	18	14.3	3	15	12	5	------	1
Modoc	64	1	1.6	1	------	1	------	------	------
Mono (no divorces granted)	5								
Monterey	190	24	12.6	7	17	19	1	------	4
Napa	159	18	11.3	5	13	14	3	1	------
Nevada	96	14	14.6	5	9	9	4	1	------
Orange	1163	22	1.9	6	16	14	7	1	------
Placer	95	12	12.6	6	6	10	1	------	1
Plumas	25	3	12.0	------	3	1	2	------	------
Riverside	401	25	6.2	7	18	16	8	------	1
Sacramento	1059	149	14.1	45	104	114	29	3	3
San Benito	84	5	6.0	3	2	4	------	------	1
San Bernardino	611	58	9.5	14	44	34	13	1	10
San Diego	1050	93	8.9	28	65	50	36	3	4
San Francisco	5500	1049	19.1	269	780	707	241	62	39
San Joaquin	621	89	14.3	17	72	69	16	3	1
San Luis Obispo	197	25	12.7	12	13	19	3	3	------
San Mateo	392	19	4.8	10	9	15	4	------	------
Santa Barbara	274	34	12.4	12	22	31	3	------	------
Santa Clara	972	114	11.7	34	80	81	25	1	7
Santa Cruz	264	44	16.7	12	32	30	12	1	1
Shasta	127	17	13.4	4	13	15	2	------	------
Sierra	11	3	27.3	------	3	3	------	------	------
Siskiyou	150	20	13.3	3	17	14	6	------	------
Solano	153	34	22.2	8	26	27	6	1	------
Sonoma	414	76	18.4	21	55	63	6	5	2
Stanislaus	209	21	10.0	7	14	14	5	1	1
Sutter	25	8	32.0	4	4	8	------	------	------
Tehama	104	17	16.3	10	7	12	5	------	------
Trinity	7	2	28.6	1	1	2	------	------	------
Tulare	302	25	8.3	7	18	16	7	------	2
Tuolumne	52	5	9.6	2	3	4	------	------	1
Ventura	197	20	10.2	10	10	13	7	------	------
Yolo	102	17	16.7	3	14	17	------	------	------
Yuba	72	19	26.4	7	12	15	4	------	------
Totals	28969	3949	13.6	1098	2851	2544	1084	155	166

TABLE No. 6. Final Decrees of Divorce Granted in the State of California for the fiscal year ending June 30, 1912, showing length of time married. (Tabulated by Counties.)

County.	Number of divorces	Length of time married.				
		Less than 5 years	5 to 10 years	11 to 20 years	Over 20 years	Not stated
Alameda	482	85	199	142	55	1
Alpine (no divorces granted).						
Amador	9	2	4	2	------	1
Butte	42	8	24	5	5	------
Calaveras	8	------	3	4	1	------
Colusa	9	1	5	3	------	------
Contra Costa	17	4	7	4	2	------
Del Norte	7	3	1	1	------	2
El Dorado	7	2	3	1	1	------
Fresno	102	23	44	25	10	------
Glenn	6	3	2	1	------	------
Humboldt	34	2	9	13	10	------
Imperial	9	3	2	3	1	------
Inyo	6	------	3	2	1	------
Kern	57	6	31	17	3	------
Kings	24	8	6	8	2	------
Lake	10	1	5	3	1	------
Lassen	4	1	1	1	1	------
Los Angeles	941	153	414	237	129	8
Madera	14	2	4	7	1	------
Marin	18	1	6	5	6	------
Mariposa	7	1	3	1	2	------
Mendocino	36	9	15	9	3	------
Merced	18	3	8	4	2	1
Modoc	1	------	1	------	------	------
Mono (no divorces granted)						
Monterey	24	6	9	5	4	------
Napa	18	4	9	4	1	------
Nevada	14	3	5	5	1	------
Orange	22	3	6	11	2	------
Placer	12	1	7	2	1	1
Plumas	3	------	1	2	------	------
Riverside	25	8	6	9	2	------
Sacramento	149	31	57	46	13	2
San Benito	5	------	4	------	1	------
San Bernardino	58	9	20	24	2	3
San Diego	93	23	33	22	15	------
San Francisco	1049	199	478	254	108	10
San Joaquin	89	20	39	18	11	1
San Luis Obispo	25	8	6	9	2	------
San Mateo	19	4	6	5	4	------
Santa Barbara	34	6	17	9	2	------
Santa Clara	114	18	50	29	16	1
Santa Cruz	44	6	16	13	8	1
Shasta	17	3	3	7	4	------
Sierra	3	------	------	2	1	------
Siskiyou	20	2	8	6	4	------
Solano	34	6	17	7	4	------
Sonoma	76	15	23	26	11	1
Stanislaus	21	4	5	7	5	------
Sutter	8	1	3	3	1	------
Tehama	17	------	6	5	4	2
Trinity	2	------	------	2	------	------
Tulare	25	10	7	6	1	1
Tuolumne	5	1	1	------	2	1
Ventura	20	3	8	4	5	------
Yolo	17	7	4	5	1	------
Yuba	19	3	10	5	1	------
Totals	3949	725	1664	1050	473	37

TABLE No. 7. Final Decrees of Divorce Granted in the State of California for the fiscal year ending June 30, 1912, showing cause for divorce. (Tabulated by Counties.)

County.	Number of divorces	Cause of divorce.						
		Adultery	Extreme cruelty	Wilful desertion	Neglect and failure to provide	Intemperance	Conviction of a felony	Not stated
Alameda	482	12	192	217	42	16	3	------
Alpine (no divorces granted)								
Amador	9	1	------	4	4	------	------	------
Butte	42	------	7	23	7	3	2	------
Calaveras	8	2	2	3	1	------	------	------
Colusa	9	------	2	4	3	------	------	------
Contra Costa	17	------	6	5	5	------	1	------
Del Norte	7	------	3	2	1	------	------	1
El Dorado	7	------	2	3	------	2	------	------
Fresno	102	3	36	44	13	4	2	------
Glenn	6	------	2	------	4	------	------	------
Humboldt	34	3	5	16	9	1	------	------
Imperial	9	1	1	6	1	------	------	------
Inyo	6	------	------	5	------	1	------	------
Kern	57	2	13	33	4	4	1	------
Kings	24	------	8	10	5	1	------	------
Lake	10	------	2	6	2	------	------	------
Lassen	4	------	3	------	1	------	------	------
Los Angeles	941	51	195	485	157	40	11	2
Madera	14	1	5	5	1	1	1	------
Marin	18	------	10	6	2	------	------	------
Mariposa	7	------	4	3	------	------	------	------
Mendocino	36	1	9	16	10	------	------	------
Merced	18	------	10	5	2	------	------	1
Modoc	1	------	------	1	------	------	------	------
Mono (no divorces granted)								
Monterey	24	------	8	13	1	1	1	------
Napa	18	2	6	5	5	------	------	------
Nevada	14	------	4	8	1	1	------	------
Orange	22	3	4	8	3	2	2	------
Placer	12	------	1	10	1	------	------	------
Plumas	3	------	------	1	2	------	------	------
Riverside	25	1	7	16	1	------	------	------
Sacramento	149	4	64	47	27	6	1	------
San Benito	5	------	1	4	------	------	------	------
San Bernardino	58	6	5	31	7	8	1	------
San Diego	93	2	24	42	23	2	------	------
San Francisco	1049	26	327	437	224	28	5	2
San Joaquin	89	3	36	33	11	6	------	------
San Luis Obispo	25	4	7	11	2	1	------	------
San Mateo	19	------	7	8	2	2	------	------
Santa Barbara	34	2	7	17	5	2	1	------
Santa Clara	114	2	36	51	24	1	------	------
Santa Cruz	44	------	13	18	11	2	------	------
Shasta	17	1	7	5	3	1	------	------
Sierra	3	------	1	1	------	------	1	------
Siskiyou	20	1	5	11	3	------	------	------
Solano	34	------	18	8	7	1	------	------
Sonoma	76	3	27	33	11	2	------	------
Stanislaus	21	------	7	12	2	------	------	------
Sutter	8	------	2	5	1	------	------	------
Tehama	17	1	6	9	1	------	------	------
Trinity	2	------	1	1	------	------	------	------
Tulare	25	------	6	12	6	1	------	------
Tuolumne	5	------	1	3	1	------	------	------
Ventura	20	2	3	13	1	------	1	------
Yolo	17	------	5	12	------	------	------	------
Yuba	19	1	2	12	4	------	------	------
Totals	3949	141	1165	1799	664	140	34	6

TABLE No. 8. Final Decrees of Divorce Granted in the State of California for the fiscal year ending June 30, 1912, showing number and ages of minor children affected and number of families without children. (Tabulated by Counties.)

County.	Number of divorces	Number of families having no children	Number and ages of minor children affected. Number of children affected	Less than 5 years	5 to 10 years	Over 10 years	Ages not given	Number and ages not given
Alameda	482	220	329	85	133	104	7	74
Alpine (no divorces granted)								
Amador	9	------	10	3	1	2	4	3
Butte	42	5	30	10	12	8	------	19
Calaveras	8	3	11	2	4	5	------	------
Colusa	9	------	8	4	4	------	------	5
Contra Costa	17	5	12	7	2	3	------	6
Del Norte	7	5	2	1	------	1	------	------
El Dorado	7	3	5	3	1	1	------	------
Fresno	102	50	74	22	26	24	2	6
Glenn	6	4	2	1	1	------	------	------
Humboldt	34	15	35	4	15	16	------	5
Imperial	9	4	7	------	3	2	2	------
Inyo	6	------	7	2	3	2	------	3
Kern	57	30	42	14	10	15	3	1
Kings	24	13	18	7	7	4	------	------
Lake	10	8	3	1	------	2	------	------
Lassen	4	1	5	2	3	------	------	------
Los Angeles	941	625	544	125	198	180	41	1
Madera	14	4	16	4	8	4	------	4
Marin	18	6	14	1	8	5	------	4
Mariposa	7	7	------	------	------	------	------	------
Mendocino	36	------	37	13	17	7	------	13
Merced	18	7	18	5	7	4	2	1
Modoc	1	1	------	------	------	------	------	------
Mono (no divorces granted)								
Monterey	24	------	12	1	2	------	9	17
Napa	18	3	15	6	8	1	------	3
Nevada	14	------	10	1	5	4	------	8
Orange	22	11	14	3	6	3	2	1
Placer	12	9	6	4	1	1	------	------
Plumas	3	2	5	------	2	3	------	------
Riverside	25	4	23	7	8	8	------	10
Sacramento	149	82	104	19	40	36	9	13
San Benito	5	2	6	6	------	------	------	------
San Bernardino	58	10	59	9	26	24	------	18
San Diego	93	58	63	18	27	18	------	1
San Francisco	1049	707	519	117	210	169	23	------
San Joaquin	89	18	79	23	30	25	1	28
San Luis Obispo	25	12	33	11	14	7	1	------
San Mateo	19	12	10	5	1	------	4	------
Santa Barbara	34	------	31	13	16	2	------	19
Santa Clara	114	49	70	21	22	15	12	16
Santa Cruz	44	------	36	7	10	18	1	24
Shasta	17	5	12	6	3	3	------	4
Sierra	3	1	9	1	3	5	------	------
Siskiyou	20	3	29	8	10	11	------	4
Solano	34	------	18	3	6	6	3	20
Sonoma	76	20	103	22	40	27	14	8
Stanislaus	21	2	16	1	8	7	------	10
Sutter	8	4	8	2	3	3	------	------
Tehama	17	6	14	2	7	5	------	6
Trinity	2	------	2	------	1	1	------	1
Tulare	25	4	20	7	7	5	1	9
Tuolumne	5	3	5	1	2	2	------	------
Ventura	20	6	32	4	14	14	------	------
Yolo	17	10	15	3	9	3	------	------
Yuba	19	10	15	2	5	4	4	------
Totals	3949	2069	2622	649	1009	819	145	365

JUVENILE CRIME.

TABLE No. 1. Commitments to State Reform Schools for fiscal year endi
June 30, 1911.

(Showing counties from which committed.)

County.	Total.	Male.	Female.
State of California.			
Alameda	29	27	
Alpine	-------	-------	-------
Amador	-------	-------	-------
Butte	12	11	
Calaveras	-------	-------	-------
Colusa	1	1	-------
Contra Costa	-------	-------	-------
Del Norte	1	1	-------
El Dorado	3	3	-------
Fresno	6	6	-------
Glenn	-------	-------	-------
Humboldt	2	1	
Imperial	-------	-------	-------
Inyo	-------	-------	-------
Kern	4	4	-------
Kings	4	4	-------
Lake	-------	-------	-------
Lassen	1	1	-------
Los Angeles	73	68	
Madera	-------	-------	-------
Marin	4	3	
Mariposa	-------	-------	-------
Mendocino	3	3	-------
Merced	6	4	
Modoc	-------	-------	-------
Mono	-------	-------	-------
Monterey	4	3	
Napa	2	2	-------
Nevada	-------	-------	-------
Orange	4	3	
Placer	3	2	
Plumas	1	1	-------
Riverside	7	4	
Sacramento	20	20	-------
San Benito	-------	-------	-------
San Bernardino	12	10	
San Diego	11	10	
San Francisco	45	36	
San Joaquin	6	6	-------
San Luis Obispo	4	3	
San Mateo	5	4	
Santa Barbara	13	11	
Santa Clara	21	19	
Santa Cruz	2	1	
Shasta	2	2	-------
Sierra	-------	-------	-------
Siskiyou	2	2	-------
Solano	1	-------	
Sonoma	1	1	-------
Stanislaus	6	3	
Sutter	1	1	-------
Tehama	2	2	-------
Trinity	-------	-------	-------
Tulare	6	6	-------
Tuolumne	1	1	-------
Ventura	-------	-------	-------
Yolo	3	3	-------
Yuba	4	4	-------
Totals	338	297	

TABLE No. 2. Commitments to State Reform Schools for fiscal year ending June 30, 1912.

(Showing counties from which committed.)

County.	Total.	Male.	Female.
State of California.			
Alameda	21	19	2
Alpine			
Amador			
Butte	16	16	
Calaveras	2	2	
Colusa	2	2	
Contra Costa	2	2	
Del Norte			
El Dorado	1	1	
Fresno	10	10	
Glenn			
Humboldt	1	1	
Imperial	4	4	
Inyo			
Kern	1		1
Kings			
Lake	1	1	
Lassen			
Los Angeles	90	80	10
Madera			
Marin	1		1
Mariposa			
Mendocino			
Merced	6	3	3
Modoc	2	1	1
Mono			
Monterey	6	6	
Napa	1		1
Nevada	1	1	
Orange	3	2	1
Placer	4	3	1
Plumas			
Riverside	4	3	1
Sacramento	15	15	
San Benito			
San Bernardino	7	4	3
San Diego	12	11	1
San Francisco	45	39	6
San Joaquin	10	10	
San Luis Obispo	3	3	
San Mateo	4	4	
Santa Barbara	6	6	
Santa Clara	25	21	4
Santa Cruz	2	2	
Shasta			
Sierra			
Siskiyou	1	1	
Solano			
Sonoma	3	3	
Stanislaus	1	1	
Sutter			
Tehama	1	1	
Trinity			
Tulare	6	6	
Tuolumne			
Ventura	2	2	
Yolo	5	3	2
Yuba	6	6	
Totals	333	295	38

TABLE No. 3. Commitments to State Reform Schools for fiscal year ending June 30, 1911.

(Showing offense of child committed.)

Offense.	Total.	Male.	Female.
Delinquent	234	221	13
Dependent	85	57	28
Public institution	19	19	----------
Totals	338	297	41

TABLE No. 4. Commitments to State Reform Schools for fiscal year ending June 30, 1912.

(Showing offense of child committed.)

Offense.	Total.	Male.	Female.
Delinquent	225	217	8
Dependent	103	73	30
Public institution	5	5	----------
Totals	333	295	38

TABLE No. 5. Commitments to State Reform Schools for fiscal year ending June 30, 1911.

(Showing age of child at commitment.)

Age.	Total.	Male.	Female.
Eight years	----------	----------	----------
Nine years	2	2	----------
Ten years	5	5	----------
Eleven years	6	6	----------
Twelve years	17	16	1
Thirteen years	17	14	3
Fourteen years	33	27	6
Fifteen years	46	41	5
Sixteen years	66	60	6
Seventeen years	84	70	14
Eighteen years	33	27	6
Nineteen years	21	21	----------
Twenty years	5	5	----------
Not stated	3	3	----------
Totals	338	297	41

TABLE No. 6. Commitments to State Reform Schools for fiscal year ending June 30, 1912.

(Showing age of child at commitment.)

Age.	Total.	Male.	Female.
Seven years	1	1	
Eight years			
Nine years	2	2	
Ten years	3	3	
Eleven years	5	4	1
Twelve years	6	6	
Thirteen years	17	16	1
Fourteen years	23	23	
Fifteen years	45	38	7
Sixteen years	65	54	11
Seventeen years	79	69	10
Eighteen years	47	42	5
Nineteen years	34	31	3
Twenty years	6	6	
Not stated			
Totals	333	295	38

TABLE No. 7. Commitments to State Reform Schools for fiscal year ending June 30, 1911.

(Showing race of child committed.)

Race.	Total.	Male.	Female.
White	312	273	39
Negro	20	18	2
Not stated	6	6	
Totals	338	297	41

TABLE No. 8. Commitments to State Reform Schools for fiscal year ending June 30, 1912.

(Showing race of child committed.)

Race.	Total.	Male.	Female.
White	303	267	36
Chinese	2	2	
Japanese	1	1	
Negro	13	12	1
Not stated	14	13	1
Totals	333	295	38

TABLE No. 9. Commitments to State Reform Schools for fiscal year ending June 30, 1911.

(Showing place of birth of child committed.)

Place of birth of child committed.	Total.	Male.	Female.
California	195	168	27
Rest of United States	111	99	12
Foreign	31	29	2
Not stated	1	1	----------
Totals	338	297	41

TABLE No. 10. Commitments to State Reform Schools for fiscal year ending June 30, 1912.

(Showing place of birth of child committed.)

Place of birth of child committed.	Total.	Male.	Female.
California	149	128	21
Rest of United States	103	88	15
Foreign	80	78	2
Not stated	1	1	----------
Totals	333	295	38

TABLE No. 11. Commitments to State Reform Schools for fiscal year ending June 30, 1911.

(Showing place of birth of parents of child committed.)

Place of birth of parents.	Total.	Male.	Female.
Both parents born in United States	204	177	27
Father foreign born	21	17	4
Mother foreign born	4	4	----------
Both parents foreign born	88	81	7
Not stated	21	18	3
Totals	338	297	41

TABLE No. 12. Commitments to State Reform Schools for fiscal year ending June 30, 1912.

(Showing place of birth of parents of child committed.)

Place of birth of parents.	Total.	Male.	Female.
Both parents born in United States	171	147	24
Father foreign born	20	17	3
Mother foreign born	11	9	2
Both parents foreign born	98	92	6
Not stated	33	30	3
Totals	333	295	38

TABLE No. 13. Commitments to State Reform Schools for fiscal year ending June 30, 1911.

(Showing age of child on leaving school.)

Age.	Total.	Male.	Female.
Seven years	1	1	----------
Eight years	1	1	----------
Nine years	6	6	----------
Ten years	9	9	----------
Eleven years	11	11	----------
Twelve years	34	30	4
Thirteen years	45	42	3
Fourteen years	74	67	7
Fifteen years	66	58	8
Sixteen years	50	36	14
Seventeen years	14	12	2
Eighteen years	4	3	1
Nineteen years	3	3	----------
Not stated	6	4	2
No schooling	14	14	----------
Totals	338	297	41

TABLE No. 14. Commitments to State Reform Schools for fiscal year ending June 30, 1912.

(Showing age of child on leaving school.)

Age.	Total.	Male.	Female.
Seven years	----------	----------	----------
Eight years	----------	----------	----------
Nine years	5	5	----------
Ten years	14	14	----------
Eleven years	14	14	----------
Twelve years	21	21	----------
Thirteen years	32	32	----------
Fourteen years	53	52	1
Fifteen years	47	43	4
Sixteen years	36	27	9
Seventeen years	6	6	----------
Eighteen years	3	3	----------
Nineteen years	1	1	----------
Twenty years	----------	----------	----------
Not stated	94	70	24
No schooling	7	7	----------
Totals	333	295	38

TABLE No. 15. Commitments to State Reform Schools for fiscal year ending June 30, 1911.

(Showing grade reached by child on leaving school.)

Grade.	Total.	Male.	Female.
First grade	6	6	----------
Second grade	16	12	4
Third grade	42	35	7
Fourth grade	42	38	4
Fifth grade	46	43	3
Sixth grade	72	65	7
Seventh grade	42	38	4
Eighth grade	37	28	9
Ninth grade	8	7	1
High school	6	5	1
College	1	1	----------
Not stated	6	5	1
No schooling	14	14	----------
Totals	338	297	41

TABLE No. 16. Commitments to State Reform Schools for fiscal year ending June 30, 1912.

(Showing grade reached by child on leaving school.)

Grade.	Total.	Male.	Female.
First grade	14	13	1
Second grade	8	8	----------
Third grade	32	32	----------
Fourth grade	36	31	5
Fifth grade	42	40	2
Sixth grade	26	25	1
Seventh grade	31	30	1
Eighth grade	36	33	3
Ninth grade	2	1	1
High school	11	10	1
College	1	1	----------
Not stated	87	64	23
No schooling	7	7	----------
Totals	333	295	38

TABLE No. 17. Commitments to State Reform Schools for fiscal year ending June 30, 1911.

(Showing status of parents of children committed.)

Status.	Total.	Male.	Female.
Parents living together	124	107	17
Parents separated	38	28	10
Parents divorced	29	28	1
One parent dead	115	105	10
Both parents dead	23	22	1
Not stated	9	7	2
Totals	338	297	41

TABLE No. 18. Commitments to State Reform Schools for fiscal year ending June 30, 1912.

(Showing status of parents of children committed.)

Status.	Total.	Male.	Female.
Parents living together	128	117	11
Parents separated	37	29	8
Parents divorced	26	21	5
One parent dead	108	96	12
Both parents dead	26	25	1
Not stated	8	7	1
Totals	333	295	38

TABLE No. 19. Commitments to State Reform Schools for fiscal year ending June 30, 1911.

(Showing with whom child resided at time of commitment.)

Living with.	Total.	Male.	Female.
Both parents	112	98	14
Father	42	35	7
Mother	112	98	14
Neither parent	69	63	6
Not stated	3	3	----------
Totals	338	297	41

TABLE No. 20. Commitments to State Reform Schools for fiscal year ending June 30, 1912.

(Showing with whom child resided at time of commitment.)

Living with.	Total.	Male.	Female.
Both parents	100	93	7
Father	41	37	4
Mother	83	71	12
Neither parent	68	63	5
Not stated	41	31	10
Totals	333	295	38

TABLE No. 21. Commitments to State Reform Schools for fiscal year ending June 30, 1911.

(Showing addiction of parents to liquor.)

Addicted to use of liquor.	Total.	Male.	Female.
Both parents	7	4	3
Father	75	64	11
Mother	4	3	1
Neither parent	230	207	23
Not stated	22	19	3
Totals	338	297	41

TABLE No. 22. Commitments to State Reform Schools for fiscal year ending June 30, 1912.

(Showing addiction of parents to liquor.)

Addicted to use of liquor.	Total.	Male.	Female.
Both parents	7	5	2
Father	81	72	9
Mother	7	5	2
Neither parent	229	204	25
Not stated	9	9	----------
Totals	333	295	38

TABLE No. 1. Nature of Offense Committed by Persons Convicted of Misdemeanors in California during the fiscal year ending June 30, 1911.

(Tabulated by counties.)

County.	Total number of misdemeanors	Total males	Total females	Assault	Auto laws	Battery	Beating the railroad	Begging	Bicycle ordinance	City and county ordinances not specified
Alameda	7307	6690	617	12	233	129	8	26	13	277
Alpine (no convictions).										
Amador	6	6	------	------	------	------	------	------	------	------
Butte	437	436	1	1	------	5	2	------	------	------
Calaveras	11	11	------	------	------	------	------	------	------	------
Colusa	50	50	------	4	------	1	------	------	------	------
Contra Costa	190	188	2	3	------	9	4	------	------	------
Del Norte	5	5	------	------	------	1	------	------	------	------
El Dorado	19	19	------	2	------	3	------	------	------	------
Fresno	325	325	------	9	------	4	------	14	------	------
Glenn	39	39	------	1	------	------	------	------	------	------
Humboldt	358	357	1	2	------	9	------	------	------	------
Imperial	303	303	------	6	------	------	------	------	------	1
Inyo	8	8	------	2	------	1	------	------	------	------
Kern	678	674	4	11	------	12	------	------	------	------
Kings	68	68	------	1	------	3	------	------	------	------
Lake	2	2	------	------	------	------	------	------	------	------
Lassen	43	43	------	------	------	2	------	------	------	------
Los Angeles	23895	*23895	------	9	------	253	------	638	86	30
Madera	237	236	1	------	------	------	------	------	------	------
Marin	20	19	1	------	------	5	------	------	------	------
Mariposa	7	7	------	------	------	------	------	------	------	------
Mendocino	165	165	------	4	------	4	------	------	------	------
Merced	220	219	1	1	------	1	------	------	------	------
Modoc	26	23	3	1	------	------	------	------	------	1
Mono	4	4	------	1	------	------	------	------	------	------
Monterey	232	230	2	1	------	2	3	------	------	------
Napa	52	52	------	------	------	1	------	------	------	------
Nevada	19	19	------	------	------	1	2	------	------	------
Orange	396	395	1	3	------	8	10	------	------	------
Placer	473	473	------	2	------	10	70	------	------	------
Plumas	14	13	1	2	------	------	------	------	------	------
Riverside	406	405	1	5	------	1	------	------	------	------
Sacramento	2572	2544	28	4	------	16	5	------	------	1
San Benito	263	262	1	1	1	1	235	------	------	------
San Bernardino	1746	1733	13	12	------	13	------	------	------	------
San Diego	254	239	15	5	------	20	------	1	------	------
San Francisco	14951	13639	1312	19	10	173	3	232	------	521
San Joaquin	1579	1578	1	5	------	9	------	1	------	------
San Luis Obispo	501	500	1	------	------	2	4	------	------	------
San Mateo	93	93	------	------	------	2	------	------	------	------
Santa Barbara	503	501	2	2	------	5	------	------	------	------
Santa Clara	1047	1019	28	3	50	13	------	1	46	4
Santa Cruz	201	199	2	------	------	2	------	------	------	------
Shasta	63	63	------	1	------	2	------	------	------	------
Sierra	13	13	------	------	------	------	------	------	------	------
Siskiyou	82	82	------	2	------	1	1	------	------	------
Solano	488	486	2	2	------	5	------	------	------	------
Sonoma	467	457	10	4	------	6	------	------	------	------
Stanislaus	52	52	------	------	------	1	------	------	------	------
Sutter	3	3	------	------	------	1	------	------	------	------
Tehama	79	79	------	1	------	1	------	------	------	------
Trinity	1	1	------	------	------	------	------	------	------	------
Tulare	155	155	------	2	------	3	------	------	------	------
Tuolumne	9	9	------	1	------	------	------	------	------	------
Ventura	646	646	------	3	------	2	------	------	------	------
Yolo	123	123	------	------	------	4	------	------	------	------
Yuba	451	449	2	------	------	3	------	------	------	------
Totals	62357	60304	2053	150	294	750	347	913	145	835

*Males and females not segregated in returns from Los Angeles.

TABLE No. 1. Nature of Offense Committed by Persons Convicted of Misdemeanors in California during the fiscal year ending June 30, 1911—Continued.

(Tabulated by counties.)

County.	Concealed weapons	Contempt of court	Cruelty to animals	Defaulting witness	Defrauding an innkeeper	Discharging firearms	Disturbing the peace	Drunk	Embezzlement	Failure to provide
Alameda	43	2	40	------	8	5	184	3483	16	6
Alpine (no convictions).										
Amador	------	------	------	------	------	------	1	------	1	------
Butte	------	------	------	------	2	------	107	184	1	------
Calaveras	------	1	------	------	------	------	4	------	------	------
Colusa	------	------	------	------	------	------	------	27	------	------
Contra Costa	1	------	------	------	4	------	62	37	------	------
Del Norte	------	------	------	------	------	------	------	------	1	------
El Dorado	------	------	------	------	------	------	8	------	------	------
Fresno	2	------	1	------	3	------	80	84	2	------
Glenn	------	------	------	------	------	------	8	------	------	------
Humboldt	------	------	------	------	------	------	14	287	------	------
Imperial	2	------	------	------	------	------	6	247	1	------
Inyo	1	------	------	------	------	------	------	3	------	------
Kern	1	1	1	------	1	------	227	5	2	------
Kings	------	------	------	------	------	------	25	1	------	------
Lake										
Lassen	------	------	------	------	------	------	2	27	------	------
Los Angeles	233	5	398	------	2	15	1079	12656	26	2
Madera	------	------	------	------	------	------	110	------	------	------
Marin	------	------	------	------	------	------	4	------	------	------
Mariposa										
Mendocino	------	------	------	------	------	------	13	116	1	------
Merced	------	1	------	------	1	------	27	75	------	------
Modoc	------	3	------	------	------	------	13	1	------	------
Mono	------	------	------	------	------	------	2	------	------	------
Monterey	------	------	------	------	------	------	41	86	------	------
Napa	------	1	------	------	------	------	33	1	------	------
Nevada	1	------	------	------	------	------	12	------	1	------
Orange	1	------	------	------	------	------	24	143	1	------
Placer	1	------	------	------	9	------	165	64	1	------
Plumas	------	------	------	------	1	------	2	------	------	------
Riverside	1	------	------	------	------	------	6	263	------	------
Sacramento	------	1	4	------	5	------	45	2162	------	------
San Benito	------	------	------	------	------	------	13	------	------	------
San Bernardino	6	------	1	------	------	------	92	1278	2	------
San Diego	1	1	------	------	4	------	49	7	2	------
San Francisco	57	------	183	------	5	8	438	11674	13	------
San Joaquin	------	------	------	------	------	------	18	1438	2	------
San Luis Obispo	------	------	------	------	2	------	34	317	------	------
San Mateo	1	------	------	------	------	------	14	19	------	------
Santa Barbara	------	------	------	------	1	------	107	219	------	------
Santa Clara	2	------	------	------	1	------	38	561	------	------
Santa Cruz	------	------	------	------	------	------	25	66	------	------
Shasta	1	------	------	------	4	------	14	8	------	------
Sierra	------	------	------	------	------	------	------	13	------	------
Siskiyou	------	1	------	------	1	------	8	49	------	------
Solano	------	1	------	------	------	------	29	351	1	------
Sonoma	1	------	------	------	3	------	22	322	------	------
Stanislaus	------	------	------	------	------	------	9	15	2	------
Sutter										
Tehama	------	------	------	------	------	------	12	6	------	------
Trinity										
Tulare	------	------	------	------	------	------	14	96	------	1
Tuolumne	------	------	------	------	------	------	1	------	------	------
Ventura	------	------	------	------	------	------	4	555	------	------
Yolo	------	------	------	------	------	------	19	38	------	------
Yuba	------	------	------	------	------	------	3	381	------	------
Totals	356	18	628	------	57	28	3267	37365	76	9

TABLE No. 1. Nature of Offense Committed by Persons Convicted of Misdemeanors in California during the fiscal year ending June 30, 1911—Continued.

(Tabulated by counties.)

County.	Fast driving	Fish and game laws	Gambling	Hitching ordinance	Indecent exposure	License	Liquor laws	Lottery	Malicious mischief	Misdemeanors not specified
Alameda	2	1	976	11	5	15	60	1108	15	76
Alpine (no convictions)										
Amador										2
Butte					5	1	1			9
Calaveras										1
Colusa										9
Contra Costa					1	1			4	1
Del Norte							1			
El Dorado										
Fresno			9		2				1	13
Glenn					1					12
Humboldt					1		2			2
Imperial							6			10
Inyo										1
Kern		2			6	3			1	101
Kings							3			3
Lake										2
Lassen					1		5			3
Los Angeles	584	5	190	356	23	698		266	30	4223
Madera		3							1	31
Marin		1				2				2
Mariposa										5
Mendocino		1			1		8			1
Merced			3		1					2
Modoc							5			
Mono							1			
Monterey					3				2	4
Napa							2			5
Nevada										
Orange						1	3		1	1
Placer					3	2	1		3	17
Plumas						7				
Riverside			1				9			13
Sacramento			3		3	1		1	13	24
San Benito										
San Bernardino					1		56			62
San Diego		2			4		6		3	12
San Francisco	4	40	77		12	52	12	65	29	225
San Joaquin					2	2			4	1
San Luis Obispo					1				10	41
San Mateo		1	1		1					2
Santa Barbara					1				4	49
Santa Clara					5	11		8		32
Santa Cruz		1			1					3
Shasta					1					2
Sierra										
Siskiyou							2		2	2
Solano		2			3				1	7
Sonoma		1			1	1	9			4
Stanislaus					1					3
Sutter										
Tehama									1	29
Trinity										1
Tulare										8
Tuolumne										2
Ventura							2			15
Yolo					1	1				2
Yuba										5
Totals	590	60	1260	367	91	798	194	1448	125	5080

TABLE No. 1. Nature of Offense Committed by Persons Convicted of Misdemeanors in California during the fiscal year ending June 30, 1911—Concluded.

(Tabulated by counties.)

County.	Nuisance	Obtaining money under false pretenses	Passing fictitious checks	Petit larceny	Prostitution	Resisting an officer	Sleeping out	Threat to kill	Vagrancy	Vulgar language
Alameda	3	2	-	113	-	-	36	-	379	20
Alpine (no convictions)										
Amador	-	-	1	-	-	1	-	-	-	-
Butte	-	1	-	29	-	-	-	-	89	-
Calaveras	-	-	-	4	-	-	-	-	1	-
Colusa	-	-	-	9	-	-	-	-	-	-
Contra Costa	-	3	-	25	-	-	-	-	35	-
Del Norte	-	-	-	2	-	-	-	-	-	-
El Dorado	-	-	-	2	-	-	-	-	4	-
Fresno	-	1	-	25	-	-	-	-	75	-
Glenn	-	1	-	11	-	-	-	-	5	-
Humboldt	-	1	-	15	-	-	-	-	25	-
Imperial	-	-	-	7	-	-	-	-	17	-
Inyo										
Kern	-	2	1	74	-	1	-	-	226	-
Kings	-	-	-	9	-	-	-	-	23	-
Lake										
Lassen	-	-	-	1	-	-	-	1	1	-
Los Angeles	-	5	-	545	53	1	-	2	1482	-
Madera	-	-	-	7	-	-	-	-	85	-
Marin	-	-	-	6	-	-	-	-	-	-
Mariposa	-	-	-	-	-	-	-	-	2	-
Mendocino	-	-	-	6	-	-	-	-	10	-
Merced	-	-	-	8	-	-	-	-	100	-
Modoc	-	-	-	2	-	-	-	-	-	-
Mono										
Monterey	-	1	-	19	-	-	-	-	70	-
Napa	-	-	-	6	-	-	-	-	3	-
Nevada	-	-	-	2	-	-	-	-	-	-
Orange	-	-	2	20	-	-	-	-	178	-
Placer	-	3	-	37	-	5	-	-	78	2
Plumas	-	-	-	2	-	-	-	-	-	-
Riverside	-	-	-	22	-	-	-	-	85	-
Sacramento	-	1	-	123	-	-	-	-	160	-
San Benito	-	-	-	8	-	-	-	-	4	-
San Bernardino	-	2	-	101	1	1	-	-	118	-
San Diego	-	1	-	37	-	-	-	-	99	-
San Francisco	16	7	-	277	13	5	-	-	781	-
San Joaquin	-	1	-	55	-	-	-	-	41	-
San Luis Obispo	-	-	-	9	-	-	-	-	81	-
San Mateo	-	1	-	7	-	1	-	-	43	-
Santa Barbara	-	-	-	9	-	-	-	-	106	-
Santa Clara	-	2	-	35	-	-	-	-	235	-
Santa Cruz	-	1	-	19	-	-	-	-	83	-
Shasta	-	-	-	13	-	1	-	-	16	-
Sierra										
Siskiyou	-	1	-	12	-	-	-	-	-	-
Solano	-	-	-	21	-	-	-	-	65	-
Sonoma	-	2	1	22	-	-	-	-	68	-
Stanislaus	-	-	-	13	-	1	-	-	7	-
Sutter	-	-	-	2	-	-	-	-	-	-
Tehama	-	1	-	13	-	-	-	-	15	-
Trinity										
Tulare	-	-	-	5	-	-	-	-	26	-
Tuolumne	-	-	-	2	-	-	-	-	3	-
Ventura	-	1	-	7	-	-	-	-	57	-
Yolo	-	-	-	6	-	-	-	-	52	-
Yuba	-	-	-	18	-	-	-	-	41	-
Totals	19	41	5	1822	67	17	36	3	5074	22

TABLE No. 2. Nature of Offense Committed by Persons Convicted of Misdemeanors in California during the fiscal year ending June 30, 1912.

(Tabulated by counties.)

County.	Total number of misdemeanors	Total males	Total females	Assault	Auto laws	Battery	Beating the railroad	Begging	Bicycle ordinance	City and county ordinances not specified
Alameda	8744	8289	455	2	266	142	8	2	18	336
Alpine (no convictions).										
Amador	7	7	------	------	------	------	------	------	------	------
Butte	521	516	5	------	------	7	1	------	------	------
Calaveras	8	6	2	------	------	1	------	------	------	------
Colusa	61	61	------	------	------	------	------	------	------	------
Contra Costa	163	161	2	2	1	1	4	------	------	------
Del Norte	3	3	------	1	------	------	------	------	------	------
El Dorado	11	11	------	1	------	------	------	------	------	------
Fresno	226	224	2	7	------	9	1	5	------	------
Glenn	28	28	------	1	------	1	------	------	------	------
Humboldt	309	309	------	1	------	8	------	------	------	------
Imperial	357	356	1	1	------	1	69	------	------	------
Inyo	20	20	------	------	------	------	------	------	------	------
Kern	403	398	5	4	------	24	8	------	------	------
Kings	668	668	------	3	------	------	------	------	------	1
Lake	2	2	------	------	------	------	------	------	------	------
Lassen	54	54	------	------	------	------	------	------	------	------
Los Angeles	28290	*28290	------	57	623	289	1	300	28	1821
Madera	304	304	------	1	------	2	------	------	------	4
Marin	110	110	------	1	------	2	------	------	------	------
Mariposa	6	6	------	1	------	------	------	------	------	------
Mendocino	183	182	1	8	------	1	------	------	------	------
Merced	272	272	------	3	------	10	------	------	------	------
Modoc	31	30	1	2	------	------	------	------	------	4
Mono (no convictions).										
Monterey	291	291	------	5	------	2	14	------	------	------
Napa	41	40	1	------	------	2	------	------	------	------
Nevada	13	13	------	1	------	2	------	------	------	------
Orange	492	492	------	------	------	4	3	------	------	------
Placer	426	426	------	5	------	5	63	------	------	------
Plumas	13	13	------	3	------	------	------	------	------	------
Riverside	382	382	------	3	------	1	------	------	------	------
Sacramento	3637	*3637	------	5	------	111	2	------	------	146
San Benito	98	98	------	2	------	------	------	------	------	------
San Bernardino	1724	1713	11	9	------	12	184	------	------	------
San Diego	461	450	11	2	------	28	2	------	------	------
San Francisco	13941	12728	1213	28	6	128	------	198	------	378
San Joaquin	1745	1744	1	1	------	7	------	1	------	------
San Luis Obispo	419	419	------	1	------	3	------	------	------	------
San Mateo	107	107	------	------	1	2	------	------	------	------
Santa Barbara	564	562	2	1	------	5	17	------	------	------
Santa Clara	1344	1312	32	3	39	26	------	22	43	9
Santa Cruz	189	188	1	1	------	2	------	------	------	------
Shasta	98	98	------	3	------	2	------	------	------	------
Sierra	7	7	------	------	------	------	------	------	------	------
Siskiyou	132	132	------	1	------	2	5	------	------	------
Solano	461	460	1	3	------	8	2	------	------	------
Sonoma	478	474	4	2	------	3	------	------	------	------
Stanislaus	120	120	------	1	------	2	------	------	------	------
Sutter	6	6	------	2	------	------	------	------	------	------
Tehama	49	49	------	------	------	------	------	------	------	------
Trinity	1	1	------	------	------	------	------	------	------	------
Tulare	124	124	------	------	------	1	------	------	------	------
Tuolumne	8	8	------	------	------	1	------	------	------	------
Ventura	561	561	------	9	------	1	------	------	------	------
Yolo	147	147	------	------	------	2	------	------	------	------
Yuba	791	789	2	2	------	8	5	------	------	------
Totals	69651	67898	1753	189	936	868	389	528	89	2699

*Males and females not segregated.

TABLE No. 2. Nature of Offense Committed by Persons Convicted of Misdemeanors in California during the fiscal year ending June 30, 1912—Continued.

(Tabulated by counties.)

County.	Concealed weapons	Contempt of court	Cruelty to animals	Defaulting witness	Defrauding an innkeeper	Discharging firearms	Disturbing the peace	Drunk	Embezzlement	Failure to provide
Alameda	67	1	31	1	1	9	210	3975	10	12
Alpine (no convictions).										
Amador	------	------	------	------	------	------	5	------	------	------
Butte	------	1	------	------	3	------	86	133	1	1
Calaveras	------	------	------	------	1	------	3	------	------	1
Colusa	------	------	------	------	------	------	4	50	------	------
Contra Costa	1	------	------	------	6	------	40	30	1	------
Del Norte	------	------	------	------	2	------	------	------	------	------
El Dorado	------	------	------	------	------	------	5	------	------	------
Fresno	2	------	1	------	1	------	9	127	------	1
Glenn	------	------	------	------	------	------	1	------	------	------
Humboldt	------	------	------	------	2	------	4	255	------	------
Imperial	6	------	------	------	------	------	5	209	2	------
Inyo	------	------	------	------	------	------	------	3	------	------
Kern	1	------	------	------	7	1	112	30	1	------
Kings	------	------	------	------	------	------	19	602	------	------
Lake										
Lassen	------	------	------	------	------	------	10	36	------	------
Los Angeles	307	5	715	------	5	20	1385	17678	31	1
Madera	------	------	------	------	------	------	3	------	------	------
Marin	------	------	------	------	------	------	72	3	1	3
Mariposa	------	------	------	------	------	------	4	------	------	------
Mendocino	------	------	------	------	4	------	18	82	1	1
Merced	------	------	------	------	3	------	148	------	------	------
Modoc	------	------	------	------	1	------	10	------	------	2
Mono (no convictions).										
Monterey	------	------	------	------	1	------	30	163	------	------
Napa	------	------	------	------	------	------	32	2	------	------
Nevada	------	------	------	------	------	------	5	------	------	------
Orange	7	------	------	------	1	------	48	68	------	------
Placer	1	------	------	------	12	------	160	41	------	------
Plumas	------	1	------	------	------	------	------	------	------	------
Riverside	2	------	1	------	1	------	14	260	------	------
Sacramento	------	------	------	------	2	------	207	1835	4	------
San Benito	------	------	------	------	------	------	13	73	------	------
San Bernardino	------	------	------	------	------	------	79	1117	------	------
San Diego	------	1	------	------	2	1	93	17	3	------
San Francisco	110	2	157	------	7	9	366	10760	9	------
San Joaquin	------	------	------	------	2	------	10	1590	1	------
San Luis Obispo	------	------	------	------	3	------	60	223	------	------
San Mateo	7	------	2	------	------	------	21	22	------	1
Santa Barbara	------	------	------	------	------	------	115	282	------	------
Santa Clara	19	1	3	------	1	------	39	668	1	1
Santa Cruz	------	------	------	------	------	------	23	66	------	------
Shasta	------	------	------	------	------	------	12	56	------	------
Sierra	------	------	------	------	------	------	------	6	------	------
Siskiyou	------	1	------	------	1	------	3	86	1	1
Solano	------	------	------	------	1	------	29	327	------	1
Sonoma	------	------	------	------	2	------	18	352	1	1
Stanislaus	1	------	------	------	1	------	26	24	1	------
Sutter	------	------	------	------	------	------	2	------	------	------
Tehama	------	------	------	------	------	------	4	1	------	------
Trinity										
Tulare	------	------	------	------	------	------	7	97	------	------
Tuolumne	------	------	------	------	------	------	3	------	------	------
Ventura	1	------	------	------	------	------	4	479	1	------
Yolo	------	------	3	------	------	------	16	30	1	3
Yuba	1	1	------	------	5	------	15	701	------	------
Totals	533	14	913	1	78	40	3607	42559	71	30

TABLE No. 2. Nature of Offense Committed by Persons Convicted of Misdemeanors in California during the fiscal year ending June 30, 1912—Continued.

(Tabulated by counties.)

County.	Fast driving	Fish and game laws	Gambling	Hitching ordinance	Indecent exposure	License	Liquor laws	Lottery	Malicious mischief	Misdemeanors not specified
Alameda	1	6	1728	12	1	12	1	1139	22	298
Alpine (no convictions).										
Amador	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
Butte	-----	-----	-----	-----	3	-----	1	-----	-----	52
Calaveras										
Colusa	-----	-----	-----	-----	-----	-----	2	-----	-----	2
Contra Costa	-----	-----	-----	-----	3	1	-----	-----	6	2
Del Norte										
El Dorado	-----	2	-----	-----	-----	-----	-----	-----	-----	2
Fresno	-----	-----	-----	-----	1	2	1	-----	-----	-----
Glenn	-----	-----	2	-----	-----	-----	-----	-----	-----	12
Humboldt	-----	2	-----	-----	-----	-----	-----	-----	2	-----
Imperial	-----	-----	3	-----	1	-----	7	-----	-----	2
Inyo	-----	1	3	-----	-----	-----	2	-----	3	2
Kern	-----	-----	-----	-----	-----	1	-----	4	3	30
Kings	-----	-----	2	-----	-----	-----	-----	-----	-----	3
Lake	-----	-----	-----	-----	-----	-----	-----	-----	-----	2
Lassen	-----	1	-----	-----	-----	-----	6	-----	-----	-----
Los Angeles	-----	-----	234	103	25	150	1	235	6	1239
Madera	-----	-----	-----	-----	-----	-----	-----	-----	-----	292
Marin	-----	-----	-----	-----	-----	-----	-----	-----	-----	2
Mariposa										
Mendocino	-----	-----	-----	-----	-----	-----	3	-----	-----	37
Merced	-----	-----	-----	-----	2	-----	-----	-----	-----	5
Modoc	-----	2	-----	-----	-----	-----	2	-----	-----	6
Mono (no convictions).										
Monterey	-----	-----	-----	-----	-----	-----	-----	-----	-----	2
Napa										
Nevada	-----	-----	-----	-----	1	-----	-----	-----	-----	1
Orange	-----	6	-----	-----	-----	-----	-----	-----	1	239
Placer	-----	1	1	-----	7	-----	1	-----	1	8
Plumas	-----	-----	-----	-----	-----	-----	1	-----	-----	4
Riverside	-----	-----	-----	-----	-----	-----	6	-----	-----	10
Sacramento	-----	-----	-----	-----	3	-----	-----	-----	6	87
San Benito	-----	-----	-----	-----	-----	-----	2	-----	-----	-----
San Bernardino	-----	-----	-----	-----	-----	-----	44	-----	-----	122
San Diego	-----	-----	-----	-----	8	-----	1	-----	2	13
San Francisco	5	43	37	7	27	70	7	87	31	*527
San Joaquin	-----	1	-----	-----	2	-----	-----	-----	2	7
San Luis Obispo	-----	-----	-----	-----	-----	1	1	-----	1	47
San Mateo	-----	2	-----	-----	1	-----	-----	-----	-----	12
Santa Barbara	-----	-----	-----	-----	1	-----	3	-----	-----	45
Santa Clara	-----	4	-----	3	6	17	1	8	4	70
Santa Cruz	-----	-----	-----	-----	-----	-----	-----	-----	-----	2
Shasta	-----	11	-----	-----	-----	-----	1	-----	-----	-----
Sierra	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
Siskiyou	-----	-----	-----	-----	2	-----	5	-----	1	1
Solano	-----	2	-----	-----	-----	3	-----	-----	3	3
Sonoma	-----	-----	-----	-----	3	-----	13	-----	1	2
Stanislaus	-----	2	2	-----	1	-----	-----	-----	2	6
Sutter										
Tehama	-----	-----	-----	-----	-----	-----	-----	-----	1	13
Trinity	-----	1	-----	-----	-----	-----	-----	-----	-----	-----
Tulare	-----	1	-----	-----	-----	2	2	-----	-----	3
Tuolumne	-----	-----	-----	-----	-----	-----	-----	-----	-----	3
Ventura	-----	-----	-----	-----	-----	-----	-----	-----	-----	18
Yolo	-----	1	-----	-----	2	-----	2	-----	-----	4
Yuba	-----	-----	-----	-----	1	-----	-----	-----	2	1
Totals	6	89	2012	125	101	259	116	1473	100	3240

*Includes 368 arrests for violation of state poison law.

TABLE No. 2. Nature of Offense Committed by Persons Convicted of Misdemeanors in California during the fiscal year ending June 30, 1912—Continued.

(Tabulated by counties.)

County.	Nuisance	Obtaining money under false pretenses	Passing fictitious checks	Petit larceny	Prostitution	Resisting an officer	Sleeping out	Threat to kill	Vagrancy	Vulgar language
Alameda	4	3	1	126	------	3	37	------	243	16
Alpine (no convictions).										
Amador	------	------	------	1	------	------	------	------	------	------
Butte	------	------	------	29	------	1	------	------	202	------
Calaveras	------	------	------	2	------	------	------	------	------	------
Colusa	------	------	------	3	------	------	------	------	------	------
Contra Costa	------	------	------	24	------	------	------	------	40	1
Del Norte										
El Dorado	------	------	------	1	------	------	------	------	------	------
Fresno	------	------	1	57	------	1	------	------	------	------
Glenn	------	------	------	5	------	1	------	------	5	------
Humboldt	------	------	------	11	------	------	------	------	24	------
Imperial	------	------	------	26	------	------	------	------	25	------
Inyo	------	1	------	2	------	------	------	------	3	------
Kern	------	------	------	72	------	------	------	------	105	------
Kings	------	------	------	15	------	------	------	------	23	------
Lake										
Lassen	------	------	------	1	------	------	------	------	------	------
Los Angeles	------	14	------	499	63	17	------	------	2438	------
Madera	------	------	------	2	------	------	------	------	------	------
Marin	------	------	------	------	------	------	------	------	26	------
Mariposa	------	------	------	------	------	------	------	------	1	------
Mendocino	------	1	8	------	------	------	------	------	19	------
Merced	------	------	------	24	------	------	------	------	77	------
Modoc	------	------	------	2	------	------	------	------	------	------
Mono (no convictions).										
Monterey	------	2	------	26	------	------	------	------	46	------
Napa	------	------	------	3	------	------	------	------	2	------
Nevada	------	------	------	3	------	------	------	------	------	------
Orange	------	------	------	19	------	------	------	------	96	------
Placer	------	------	------	34	------	1	------	------	85	------
Plumas	------	------	------	4	------	------	------	------	------	------
Riverside	------	------	1	14	------	------	------	------	69	------
Sacramento	------	------	------	326	------	------	------	------	903	------
San Benito	------	------	------	6	------	------	------	------	2	------
San Bernardino	------	------	------	63	------	------	------	------	94	------
San Diego	------	------	------	54	------	2	------	------	232	------
San Francisco	21	7	------	329	35	------	------	------	550	------
San Joaquin	------	1	------	88	------	2	------	------	30	------
San Luis Obispo	------	1	------	25	------	------	------	------	53	------
San Mateo	------	------	------	6	------	------	------	------	30	------
Santa Barbara	------	------	------	22	------	------	------	------	73	------
Santa Clara	------	------	------	84	4	------	------	------	267	1
Santa Cruz	------	1	------	15	------	------	------	------	79	------
Shasta	------	------	------	9	------	------	------	------	4	------
Sierra										
Siskiyou	------	------	------	20	------	------	------	------	2	------
Solano	------	1	------	14	------	------	------	------	64	------
Sonoma	------	3	------	21	------	1	------	------	55	------
Stanislaus	------	1	------	13	------	------	------	------	37	------
Sutter	------	------	------	2	------	------	------	------	------	------
Tehama	------	------	------	18	------	------	------	------	12	------
Trinity										
Tulare	------	1	------	5	------	------	------	------	5	------
Tuolumne	------	------	------	------	------	1	------	------	------	------
Ventura	------	------	------	16	------	------	------	------	32	------
Yolo	------	1	------	8	------	1	------	------	73	------
Yuba	------	2	------	32	------	------	------	------	15	------
Totals	25	40	11	2181	102	31	37	------	6141	18

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REPORT

OF THE

Conservation Commission

OF THE

State of California

January 1, 1913

Transmitted to the Governor and the Legislature
January 1, 1913

FRIEND WM. RICHARDSON, SUPERINTENDENT OF STATE PRINTING
SACRAMENTO, CALIFORNIA
1912

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LETTER OF TRANSMITTAL.

SACRAMENTO, CALIFORNIA.

To the Governor and the Legislature of California:

In compliance with the provisions of Chapter 408, Statutes of 1911, creating and establishing this Commission to investigate and report on certain specified subjects of conservation, and to recommend legislation relative thereto, the Commission begs to submit this report and the exhibits hereto attached.

Respectfully submitted this 1st day of January, 1913.

CONSERVATION COMMISSION OF THE
STATE OF CALIFORNIA.
GEORGE C. PARDEE, Chairman.
FRANCIS CUTTLE.
J. P. BAUMGARTNER.

LOUIS R. GLAVIS, Secretary.

ACT CREATING COMMISSION.

The Conservation Commission was created by the following act of the legislature:

Chapter 408.

An act creating and establishing a commission for investigating and gathering data and information concerning the subjects of forestry, water, the use of water, water power, electricity, electrical and other power, mines and mining, mineral and other lands, dredging, reclamation and irrigation, and for revising, systematizing and reforming the laws of this state upon, concerning, regarding or appertaining to these said subjects; providing for the appointment of said commission to be known as the "Conservation Commission of the State of California"; prescribing the powers and duties of said commission and its members and providing for the expenses of said commission and appropriating money therefor.

[Approved April 8, 1911.]

The people of the State of California, represented in senate and assembly, do enact as follows:

Section 1. A commission consisting of three persons which shall be known and designated as the "Conservation Commission of the State of California," is hereby created and established for the purpose of investigating and gathering data and information concerning the subjects of forestry, water, the use of water, water power, electricity, electrical or other power, mines and mining, mineral and other lands, dredging, reclamation and irrigation, and for the purpose of revising, systematizing and reforming the laws of this state, upon, concerning, regarding or appertaining to these said subjects.

Sec. 2. Said commission shall be appointed by the governor, and shall enter upon the performance of its duties immediately. The members of said commission shall hold office at the pleasure of the governor. In case of a vacancy in said commission, such vacancy shall be filled by appointment by the governor.

Sec. 3. It shall be the duty of said commission to investigate and examine the laws of the United States, of foreign nations, of the states of the union and of this state, and the reports and recommendations of persons, officials, commissions, societies and associations upon the subjects of forestry, water, the use of water, water power, electricity, electrical and other power, mines and mining, mineral and other lands, dredging, reclamation and irrigation and to prepare and recommend to the legislature laws, statutes and constitutional amendments revising, systematizing and reforming the laws of this state upon forestry, water, the use of water, water power, electricity, electrical and other power, mines and mining, mineral and other lands, dredging, reclamation and irrigation. The said commission is hereby authorized and empowered to do and perform the acts and things required of it by this act, and to adopt all rules and regulations necessary to carry out the provisions of this act.

Sec. 4. The said commission is hereby empowered and authorized to have printed by the state printer its reports, records and proceedings in the manner provided by law.

Sec. 5. It is hereby made the duty of the attorney general, serveyor general, the state engineer and all other state officers to render such aid and assistance to said board as said board may require.

Sec. 6. For the purpose of carrying out the provisions of this act the said commission is authorized to employ such expert, technical, professional and clerical assistance and upon such terms as it may deem proper.

Sec. 7. In order to carry out the provisions of this act the members of said commission or any person authorized by it are authorized to enter and cross all lands within this state, and to make all proper and necessary surveys and measurements of land and water; *provided*, that in doing so no damage is done to private property: and it shall be a misdemeanor, for any person or persons to wilfully and maliciously remove or destroy any permanent marks or monuments made or erected by said commission or any person or persons under its direction or authorization, or to prevent the members of the said commission or any person authorized by said commission to enter and cross any land within this state or to make surveys and measurements of land and water.

Sec. 8. Said commission shall receive no salary for their services but shall be allowed their actual expenses while in the performance of their duties as in this act provided.

Sec. 9. The sum of $100,000 is hereby appropriated out of the funds of the state not otherwise appropriated for the purposes of carrying out the provisions of this act, and the state controller is hereby authorized and directed to draw warrants upon such sum from time to time upon the requisition of said conservation commission approved by the board of examiners, and the state treasurer is hereby authorized and directed to pay such warrants.

Sec. 10. All acts or parts of acts in conflict herewith are hereby repealed.

Sec. 11. This act shall take effect immediately.

PERSONNEL OF COMMISSION.

The Governor appointed the following as members of the Commission: George C. Pardee, of Oakland, who was chosen by the Commission as its chairman; Ralph W. Bull, of Eureka; Francis Cuttle, of Riverside. Mr. Bull, owing to press of private business, resigned in August, 1911, and J. P. Baumgartner, of Santa Ana, was appointed in his place. Louis R. Glavis was appointed secretary on August 12, 1911.

FINANCIAL STATEMENT OF COMMISSION.

The sum of $100,000.00 was appropriated for the purposes of this Commission. Of this amount $54,760.18 has been expended in the course of eighteen months, that is to say, from May 1, 1911 to November, 1912.

Appropriation		$100,000 00
Co-operative agreement with U. S. Geological Survey	$14,615 27	
Co-operative agreement with U. S. Department of Agriculture	15,546 58	
Salaries	8,364 51	
Office expenses	2,656 78	
Traveling expenses	2,243 67	
Contingent (including collecting of certain data and other information)	5,803 94	
Commissioners' expenses	2,203 39	
Property	1,039 75	
State Board of Forestry, co-operative (gathering timber data)	724 16	
Underground water investigations	1,562 13	
Overpayment by Board of Control and refund on scrip book	28 48	
Total disbursements		54,788 66
		$45,211 34
By refund to Controller		28 48
Balance		$45,239 82

Vouchers for all these expenditures, properly itemized and authenticated, are on file in the office of the State Board of Control.

Statement of moneys expended to November 1, 1912, and set aside under co-operative agreement, some of which is not yet expended.

		Expended.
Set aside under co-operative agreement with U. S. Geological Survey	$23,851 00	
Disbursed	14,615 27	$14,615 27
Balance	$9,235 73	
Set aside under co-operative agreement with U. S. Department of Agriculture	$21,150 00	
Disbursed	15,546 58	15,546 58
Balance	$5,603 42	
Fixed expenses (salaries and traveling expenses)	$15,887 50	
Disbursed	10,608 18	10,608 18
Balance	$5,279 32	
Operating expenses, office, etc.	$5,662 75	
Disbursed	3,696 53	3,696 53
Balance	$1,966 22	
Contingent expenses, gathering data, school lands, etc.	$10,000 00	
Disbursed	5,803 94	5,803 94
Balance	$4,196 06	
Commissioners' expenses	$2,825 00	
Disbursed	2,203 39	2,203 39
Balance	$621 61	
State Board of Forestry	$754 75	
Disbursed	724 16	724 16
Balance	$30 59	
Underground water investigations with U. S. Geological Survey (Lee)	$1,900 00	
Disbursed	1,562 13	1,562 13
Balance	$337 87	
		$54,760 18
Overpayment by Board of Control and refund on scrip books		28 48
Total disbursements		$54,788 66

Appropriation	$100,000 00
Refund	28 48
	$100,028 48
Disbursements	54,788 66
	$45,239 82
Appropriation and refund	$100,028 48
Set aside	89,881 00
Balance unappropriated	$10,147 48

REPORT OF COMMISSION.

To the Governor and the Legislature of the State of California:

The task of the Conservation Commission has not been an easy one. It has had less than a year and a half in which to do the work laid out for it, which was to make, as well as may be, a survey of the natural resources of this State, as set forth in the act of the Legislature creating the Commission, collect data thereon, and to propose to the Legislature such laws, based on that data, as might appear practicable for the conservation of those natural resources.

One great difficulty with which the Commission has had to contend is the fact that the collection of the data necessary for the formulation of recommendations upon all the matters referred to it by the Legislature has, in all cases, required a long time, even when the Commission has availed itself, as it has in all cases where it has been possible, of the already organized forces of other departments of the state government and of the various departments of the Federal Government. In such matters as the flow of streams and the determining of underground water supply, it is at once evident that the data necessary for the formulating of recommendations by this Commission could not be gathered in the time at the disposal of the Commission with sufficient accuracy for the formulation of such recommendations. Such data must be gathered during all the seasons of the year, and, under conditions of varying annual rainfall, such as are characteristic of California, must be gathered during many successive years in order to be of the greatest possible value. The data gathered by the coöperating agents of the Commission and set forth in this report will, the Commission believes, prove of sufficient value to warrant the comparatively slight expense of their gathering.

COÖPERATIVE AGREEMENTS.

In surveying the field of its operations, the Conservation Commission came, at the very beginning, to the conclusion that it would be neither economical nor efficient for it to organize forces for the investigation of such matters as irrigation, the area and location of irrigable lands, and the gaging and examination of streams with regard thereto. It realized fully that the United States, through its Department of Agriculture, with its various bureaus, and the Department of the Interior, principally through the various branches of the Geological Survey, had regularly organized and equipped and trained persons engaged in exactly the work that this Commission contemplated doing. The Commission also realized that, were it to attempt to do the work already being done by these departments of the Federal Government, much time, money and effort would be wasted in duplicating work already in process under government supervision. Furthermore, the Commission realized that it could not do this work so cheaply or so well as the government is doing it; and that, for all these reasons, it would be best for the Commssion to coöperate with these trained government agencies in the collection of the required data. Upon consultation with Mr. Frank Adams, of the Irrigation Investigations, U. S. Department of Agriculture, and Messrs. M. O. Leighton, W. C. Mendenhall, J. C. Hoyt and H. D. McGlashan of the U. S. Geological Survey, the Government officials—Messrs. Fortier, True, George Otis Smith and others—very kindly consented to coöperate with this Commission, putting at our disposal their trained men and organizations, in return for the Commission paying the greater portion, but not all, of the expenses incurred in the work.

The results of this coöperation have been entirely satisfactory. The work has been rapidly done, and with far more efficiency and at far less expense to the State than would have been the case had the Commission attempted to do the work itself.

The texts of the coöperative agreements with the U. S. Departments of the Interior and Agruculture are set forth in this report in their proper places.

THEORY OF FREE GIFTS OF NATURAL RESOURCES.

It was the theory of our forefathers, who inaugurated the practice by which individuals have secured private property rights in natural resources, that such resources are of no good to the public unless they are used for the public benefit. This theory is, beyond question, correct. But those who put that theory into practice went a step farther. They reasoned that, in order to get these natural resources used for the benefit of the public, it would be necessary to allow them to become private property. That this theory is not correct is proven by the fact that other countries—most of them, in fact—succeed in getting their natural resources used for the benefit of the public without disposing of them and without permitting them to be monopolized or unnecessarily wasted or destroyed, as we have permitted most of ours to be. The result has been that these other and more farsighted countries have conserved their natural resources.

Our forefathers, proceeding on the theory that it was necessary to give our natural resources away in order to keep them from being unused, disposed of them with a free hand. The contrary result from that which they expected would follow has, in a great measure, resulted. Desiring to get these natural resources out of public ownership cold storage, they permitted them to be put into private cold storage, where they are used only somewhat more than they would have been used in public cold storage. The enormous, unused forests, in private cold storage in this State, and the enormous cold-storaging and nonuse of coal lands in private ownership in other parts of the country are cases in point.

Desiring to prevent the economic waste by nonuse, of the natural resources of this country, our forefathers gave them away. The result has been that most of these natural resources have been wasted and destroyed because of the desire of their private owners to get rich quick.

The public has use, to be sure, but only a use limited by the very natural, human greed of those who are the public's successors in ownership of those natural resources. And, as a result of that very natural greed, the public is compelled to pay unnecessarily high prices for the limited use which it enjoys of the natural resources it once owned.

With this condition of affairs the Conservation Commission has no serious quarrel. Its members freely admit that, had they had the opportunity, they would, in the pursuit of quickly-acquired and enormous fortunes, also have wasted, destroyed, monopolized and cold-storaged any natural resources which might have fallen into their ownership. But the Commission, nevertheless, confidently asserts that the burden of the public would be none the less if its members, in common with others, had wasted, destroyed, monopolized, or cold-storaged such natural resources as they might have acquired.

True, in other countries which have not given away their natural resources there have not been such opportunities as there have been and still are in our country for the amassing, at the cost of the public, of enormous private fortunes in a few years by the monopolization, wasting, destruction, or even cold-storaging of their natural resources, as has been the case in our country. But the opinion seems to be quite prevalent, at least among those many millions of the American people, who, bearing the burdens caused by the giving away of the natural resources, do not correspondingly share in the benefits derived by the donee, that such fortunes are not balanced by corresponding public benefits.

Had our forefathers been able to foresee the bad economic results of coal, forest, water and other monopolies, wastes, destructions and cold-storagings resulting from their mistaken gifts of them, it is safe to say that the policy of giving our natural resources into private ownership would never have been followed, with the exception, perhaps, of the case of lands. This latter resource, being essential to the prevention of a land-owning aristocracy with all its attending evils, will be, everybody but the Socialists seems to think, better used for the public good if it is in the private ownership in small areas of those who, because of that ownership, will take care of it, and because of small areas can do so.

WATER THE ONLY NATURAL RESOURCE LEFT TO CALIFORNIA.

Water is practically the only natural resource left to the full regulation of the State of California. It is, equally with land and even more than the forests, of the greatest necessity for the prosperity and comfort of our people. Neither it nor its use ought to have been permitted to become, in any shape or manner, private property. With that portion of it, or the use of that portion of it, which has already been permitted to become private property, we have, at present, little to do, beyond so regulating the enjoyment of it by its present owners that it will be as little as possible provocative of public distress or inconvenience. But that portion of this natural resource which has not yet fallen into private control or ownership should not be permitted to do so. And that portion of it which is illegally privately-controlled or owned should be restored to public ownership and control. The only way, of course, in which that may be accomplished is by giving to some state agency the power to investigate conditions and initiate proceedings looking to their judicial restoration to the public.

THEORY AND PRACTICE OF CONSERVATION.

"Conservation of the natural resources" should consist, in the view of this Commission, not necessarily in the preservation of those resources, but in the use of them, in such quantities, under such conditions and at such times as the needs of the people require; without, however, any unnecessary waste or destruction, and without permitting them to become the subjects of monopolies detrimental to the public good.

There are natural resources which are absolutely necessary to the progress and prosperity of the public. Among them are conspicuously land, water, forests, coal, oil. Others, such as the precious metals, are of comparatively little value to the public from the standpoint of the conservationist, as they are of secondary importance to the actual, daily needs of the public.

Nobody would, the Conservation Commission believes, favor the monopoly of all the land in this State by a few score individuals. Such a monopoly always has led and always will lead to the division of a population into two classes—a small and very rich landlord class and a large and poor tenant and peasant class. The lands of the State of California have, very fortunately, been subdivided and are constantly being still more subdivided into smaller and still smaller holdings, so that the number of landowners, able to make livings from the products of their own lands, is rapidly increasing.

OWNERSHIP OF FORESTS.

But, as is shown by the table of landholdings in this report, 1,273 persons and corporations own over four and one half million acres of timber land in this State, over 4 per cent of the entire area of the whole State, or approximately 33 per cent of all the forests in the State, or practically all of the forests outside of United States reserves. Of these owners, two own over half a million acres each—one, the Southern Pacific, owning approximately 825,000 acres; the other, Mr. T. B. Walker, owning over 700,000 acres—an average of over 750,000 acres for each of these two proprietors. There are a little over 100,000,000 acres of land in this State. If 150 persons or corporations each owned 750,000 acres of land in California, all our territory—city and country, mountain, valley and desert—would be the property of that small fraction—about .00007 of 1 per cent—of our present two and a quarter millions of people.

NONUSE OF FORESTS.

A great proportion of the enormous private holdings of forest lands in this State is not being used, but is being held, without cutting the timber, for the increased price of lumber which will come as the great mass of the forests disappear—as it is now fast disappearing. The result of this is that the public, which gave these forest lands away for little or nothing, is deprived of the present benefit of the use of a large portion of the natural forest resources of this State.

For this condition of affairs, the Conservation Commission has, of course, no direct remedy to offer. Such of the owners of this timber as are in lawful possession thereof cannot be deprived of it; and the Commission, in common with all law-abiding citizens, would not deprive them of their lawfully-acquired property, even if it could. And as the Commission has not been authorized to ascertain which, if any, of the owners of enormous tracts of timber lands are not in lawful possession thereof, we have no suggestions to offer with regard thereto.

DETERIORATION OF UNUSED FORESTS.

But we would call especial attention to the fact that, because some of these enormous timber holdings are not being used, they are deteriorating because of the decay of the ripe timber, and the public loses just that much of the benefits to be derived from the use of those forests. Furthermore, because the ripe timber in these ''cold-storaged'' forests is not being cut, immature timber in other holdings is being sacrificed to supply the demands of the lumber market, with the result that an economic waste in two directions—the loss by decay of the overripe timber and (the sacrifice of unripe timber) is being suffered by the public.

FOREST DETERIORATION BY FIRE.

There is also this to be considered: Some of the owners of these enormous tracts of timber lands are averse to spending the money necessary to preserve their timber from destruction by fire. They seem to argue that it is cheaper for them, if not for the public, not to spend the money necessary to protect this natural resource, so necessary to the public, from destruction by fire. Chief among the offenders in this regard seems to be the Southern Pacific. This corporation owns over 800,000 acres of forest lands in twelve counties in this State. It was given this land for nothing; yet it has consistently opposed the passage of any adequate forest-fire legislation in this State, preferring apparently to allow its forests to be in constant danger of destruction rather than to submit to any adequate legislation looking to their protection and conservation for the public good.

FEW NATURAL RESOURCES SUBJECT TO DIRECT STATE CONTROL.

At the very outset the Commission found itself confronted with the fact that the natural resources in California which may be directly controlled, regulated, and conserved by State law, are but few in number. The disposition of all minerals for instance is controlled by federal laws. Our forests originally were, with the exception of those standing on school lands, the property of the United States, which has disposed of the best portion of them and holds the remainder in national forests, national parks and other reservations. Lands, also, with the exception of the school lands given to the State by the United States, were reserved to the Federal Government by the act of Congress admitting California as a state, and have been disposed of to private individuals, with the exception of the lands retained by the Government in the reservations above mentioned. Even the State has sold, at ridiculously low prices, the lands given to it by the Government for the purpose of supplying funds for at least the partial support of our public schools.

NECESSITY OF CONSERVING PRIVATELY-OWNED RESOURCES.

The Commission, however, realizes that even in ownership other than that of the State, certain of our natural resources are so necessary for the present and future prosperity of the people of California, that the public must, in self-protection, take such measures as may be possible for their proper conservation. Our forests, for instance, are so absolutely necessary to the conservation, even the preservation, of our streams, springs and other sources of water supply for domestic use, navigation, irrigation, the generation of electrical and other power, that, even were they all in private ownership, it would be necessary for the public to put forth every effort to prevent the forests, while being used, from being exterminated.

PRIVATELY-OWNED FORESTS ALWAYS DESTROYED.

Private ownership of the forests, unregulated by close governmental supervision and regulation, has always led to their extermination. History abounds in instances where cities, provinces and countries, once densely populated and prosperous, have suffered greatly and have even become depopulated because they permitted their forests to be destroyed, with the result that the streams, upon which they depended for the fertility of their lands, became torrents in the winter and dry beds of sand in the summer.

CALIFORNIA BEGINNING TO SUFFER.

California, young as it is, begins already to show signs of the damage that always follows the destruction of the forests. The upper reaches of some of our rivers, that have been more or less stripped of the forest protection of their water sheds, already show greater ranges between their highest and their lowest stages than they did before they lost their forest protection; and their beds are filling, more rapidly than before, with the silt torn by the unrestrained water, furnished by the rains and melting snows, from the uncovered soil.

NECESSITY FOR CONTINUOUS WATER SUPPLY.

For domestic purposes, navigation, irrigation, the development of power, and for all other uses, it is best, if not absolutely necessary, that the water supply of springs and streams shall be, as near as may be, uniform throughout the year—that there shall be small winter floods and large summer flows. But the destruction of the forests leads always to increased winter floods and decreased summer flows. In fact, forest destruction has reduced to zero the summer flow of many streams, which, before their protecting forests were destroyed, ran large all the year through. And such streams, deprived of their forests, do costly damage to property and even life by their winter floods, where, before the forests were destroyed, their flood stages did little or no damage.

DUTY OF STATE TO CONSERVE FORESTS.

It is evident, therefore, that it is the duty of the State to see to it that our forests, even such of them as are in private ownership, shall not be exterminated. Other countries than ours have long recognized the necessity for the conservation of their forests. Germany, during the last several hundred years, has, by government ownership or strict government regulation, conserved her forests. France has also done good work along this line. Other European countries have done likewise. And certain states of this Union, like New York, Maine, Wisconsin, Michigan and others, have begun to buy back, at high prices, forests, and even deforested lands that they gave away. The Federal Government, after having given away the vastly greater part of its forests, has within the last few years begun to realize the dangers of the situation, and has reserved from further spoliation and destruction large areas of forests on the headwaters of many of our streams.

INTEREST OF STATE IN PRIVATELY-OWNED FORESTS.

It is claimed that neither the State nor the Federal Government, having disposed of the forests, has any further interest in them. This would be so were it not that the forests are just as necessary to the public good in private as in public ownership; that their destruction entails just as much injury upon the public whether they be destroyed in private or in public ownership; and that the private owners of forests can make the most money in the shortest time by destroying them while lumbering them. As is shown further on hereunder, the State of New York has spent, on the recommendation of several of its Governors, several million dollars to buy back forests that it gave away for practically nothing. Even California spent $250,000 to buy for a public park, a redwood forest, which was originally given away by the public for comparatively nothing.

The Conservation Commission does not suggest or recommend that this State shall at this time spend any large sums of money for the acquisition of forest lands. But, as will appear later on in this report, it does recommend that the State acquire, or take temporary control of, large areas of cut-over lands for the purpose of initiating the reforestation thereof.

Furthermore, the State, by the exercise of its police power, can and ought to adopt such regulatory measures as will prevent, so far as may be possible, the unnecessary destruction and extermination of even the privately owned forests, either by reckless lumbering operations or by fire.

A partial discussion of the police power of the State, in regard to the regulation of privately owned forests, appears later on in this report.

WATER, FORESTS, LANDS MOST NECESSARY.

Under all the conditions that have confronted it, the Conservation Commission has been compelled to give its attention principally to the matter of the conservation of forests and water, and the conservation and even creation of soil fertility, and electrical and other power, dependent on the conservation of water. Water and forests, the Commission considers, are the most important natural resources now at the disposal of our people; and immediate attention to their conservation is required to prevent, as much as may be, the hurtful monopoly of the one and the unnecessary destruction of the other.

RESULTS OF DESTRUCTION OF NATURAL RESOURCES.

It was supposed, when the individual was given the right freely to appropriate our natural resources, that they were unlimited and inexhaustible in quantity. Less than half a century ago, for instance, it was commonly held that the redwood forests of California were of such enormous extent that they could never be all cut down; whereas, we now know that, even at the present rate of their destruction, there are people now alive whose only hope of seeing a redwood forest will lie in a visit to a public park. It was also claimed, a comparatively few years ago, that the nation's coal supply was inexhaustible. Mr. Andrew Carnegie, addressing the Conference of Governors, held in the White House in 1908, said: "When the Republic was founded, there were, according to recent expert estimates, approximately 2,000,000,000,000 tons of coal in the territory now forming the United States. Practically none of this supply was used for over a quarter century; but during the seventy-five years from 1820 to 1895 nearly 4,000,000,000 tons were mined by methods so wasteful that some 6,000,000,000 tons were either destroyed or allowed to remain in the ground forever inaccessible. During the ten years from 1896 to 1906 as much coal was produced as during the preceding seventy-five years; while more than 3,000,000,000 tons were destroyed or left in the ground beyond reach of future use. To date the actual consumption of coal has been over 7,500,000,000 tons; the waste and destruction in the neighborhood of 9,000,000,000 tons," . . . "In 1907 the production of coal was about 450,000,000 tons. At the present rate of increase the production in 1917 will be 900,000,000 tons; in 1927, 1,800,000,000 tons; and in 1937, over 3,700,000,000 tons—or an amount in that year alone equal to the production of the seventy-five years ending in 1895. And with continuation of the wasteful methods of mining, the consumption and destruction together during that one year would equal our total useful production up to the present date.''

RESULT OF UNREGULATED USE OF COAL.

The public having given the coal away and having made no provision to prevent either its waste or its monopolization, is suffering now because of the high prices it is compelled to pay for the use of property which was once its own. Charles R. Van Hise, President of the University of Wisconsin, said, at the Conference of Governors: ''Eight important railway systems now exercise an absolute monopoly over hard-coal mining. . . . . Together they own more than nine tenths of the entire anthracite deposits of Pennsylvania, and about three fourths of the total production is mined by their subsidiary coal companies.'' At the same conference Mr. James J. Hill, President of the Northern Pacific Railroad, said: ''The exhaustion of our coal supply is not in the indefinite future. The startling feature of our coal production is not so much the magnitude of the annual output as its rapid increase.'' And Mr. H. St. Clair Putnam assured the conference that, ''If the production of anthracite coal is continued only at its present annual rate, the supply will be exhausted in sixty to seventy years.''

The present generation of American citizens, therefore, is suffering financial burdens because public property, in the shape of coal, was practically given away by preceding generations without any strings on the deeds of gift.

RESULTS OF MONOPOLY OF NATURAL RESOURCES.

The monopoly of natural resources that are necessary to the public welfare always has led and always will lead to public hardships. In England and other European countries, for instance, the monopoly of land has been a very great determining factor in the division of the people into two classes—one class, very small in number, exceedingly rich; another class, very large in number, exceedingly poor. Early in the history of this nation public lands were disposed of in enormous areas to private parties—and a land-owning aristocracy of wealth was created. It soon, however, became apparent that such a condition did not comport with a democratic republic. The people, therefore, demanded and the government inaugurated a system of land disposals which sought to prevent the acquisition of the public lands in large quantities by individuals. It was the theory of the law that no man should be given more than 320 acres of the public lands, and that that land, once disposed of in such modest holdings, would continue to be so held.

U. S. GOVERNMENT FEARED MONOPOLY.

It was a like fear of timber monopoly that caused the United States Government to dispose of its timber lands in parcels not greater than 160 acres and only one such parcel to any one individual. Even in the giving of land-grant aids to some of the railroads the same idea was apparent; for some of the acts of Congress making these grants contained a provision that the granted lands should be disposed of to "actual settlers" for not more than two dollars and a half per acre, and in parcels not greater than 160 acres. However, the observance of these conditions of the acts have not always been observed by the recipients of the benefactions of the people. The Southern Pacific, for instance, has sold some of its granted lands in parcels greater than 160 acres and for more than two dollars and a half per acre; and it has refused to sell such lands to all would-be actual settlers.

In the sale or disposition of its coal lands, its desert lands and mineral lands, the Government, with the idea of preventing monopoly, has refused to part with them in large areas. Of course, though, individuals once having obtained ownership, were permitted to part with that ownership on any terms that pleased them. The result has been that enormous frauds have been perpetrated on the Government in land matters; and that, honestly or dishonestly, enormous quantities of timber, coal and other lands have fallen into monopolistic private ownership.

RESULTS OF COAL MONOPOLY.

The results of such monopolies have been apparent especially in the matter of coal and timber lands. Coal, so necessary to the public and given away by the public, has been used to extort from the public enormous sums of money, even at the expense of great privation and suffering by an appreciable percentage of the public. Even California knows what it is to be in the hands of a coal trust. There are large quantities of coal in Washington, Utah, Wyoming, New Mexico; but because the public gave that coal away, the people have been deprived of the cheap use of it. For those to whom the public gave that coal, have, very naturally and very humanly, preferred to allow some of their coal to remain unworked and unused, so that, by starving the coal market, the price of coal might be kept at as high prices as the necessities of the people would compel them to pay for it.

Had the public seen to it that its coal was not given away into private ownership, the exactions and extortions of the various coal trusts of this country, and great deprivation and suffering, could have been prevented.

WATER POWER MONOPOLY FAR REACHING.

There is no large quantity of coal, but there are many mountain streams, in this State. And from these streams is already being produced, instead of from steam, the power that supplies the place of a very large portion of the coal and oil that otherwise would be used for fuel in the generation of power. As has been said in another part of this report, it is estimated that at least 5,000,000 horse power of electric energy may be developed from the mountain streams of California, equivalent to the steam power developed by burning 100,000,000 tons of coal per annum. And that power will, one day, be doing practically all the work that can be done by steam power; and being also used for lighting, heating and power purposes in every household in this State, it will be a prime public necessity.

A monopoly, therefore, of the water power of this State would reach into every house, put under heavy tribute every person in the State, and add enormously to the burdens borne by every California industry, great or small.

MONOPOLY ALREADY FORMED.

That such monopolies are already in existence in this State goes without saying. The bond-selling prospectuses for several of our power companies make this plain. In one such prospectus, as an inducement to those contemplating buying its bonds, it is very broadly hinted that the company has a monopoly covering one third of the area of the State and over one half of its population. As an important basis for the bonds, the statement is also made that the company owns many unused valuable water rights. And the further alluring statement is made that, as the population and power needs of the State increase, the value of these, at present unused water rights will rapidly and greatly increase. It is therefore proposed to make that which the public gave away the basis for an ever-increasing tribute wrung from the necessities of the public.

NO STATE AGENCY TO RECOVER ILLEGAL APPROPRIATION.

It is true that these public service corporations can and will be regulated, after they are formed, by the California Railroad Commission. But there is no adequate power given to any part of the state government to investigate and, subject to an appeal to the courts, take away from these companies any water rights they may have illegally acquired. That power can, in practice, be exercised only by individuals. And the task of taking such matters into court, in the face of determined and long-drawn out opposition, is not one that will be welcomed by individuals. The task of defending the property of the State from illegal monopoly should be the task of the State; it should not be left to the individual.

STATE SHOULD KNOW WHAT RIGHTS ARE UNAPPROPRIATED.

Furthermore, the State, in welcoming the putting into use of her water rights, should be able to know what water rights are available for that use. It is therefore necessary that there should be some State-representing agent with the power to ascertain what water rights are legally still subject to the control of the State. To do that, it is required that that agent shall be able to know which water rights have been legally acquired and which have been illegally acquired. For the State, welcoming the development of power projects, should be able to present a legally clear and unobstructed field of operation for such development and be able reasonably to assure would-be investors that they have at their disposal certain water rights. The State does this, with reasonable certainty, in the case of land titles. It ought to do so with equally reasonable certainty in the case of the right to use of water, which is the property of the public.

WATER DISPLACES COAL AND OIL.

Falling water can supply the places of two natural power-producing resources, coal and oil, for power purposes. Transformed into electrical energy, the power of falling water can be made to do anything that fuels can do. And as it can be transported more easily, quickly and cheaply than fuels, and used simply by the turning of a switch, electrical energy will soon supplant fuels for all purposes, and can be supplied to localities inaccessible to coal or other fuels. But a past generation of Americans permitted the use of large quantities of falling water to become private property. Oil, coal and other fuel sources of power will, in a comparatively short time, become exhausted; they are already becoming and will steadily become, because of lessening quantities and monopolization, constantly higher in price. But the supply of falling water can never be exhausted until the sun refuses longer to pump it from the ocean or the force of gravitation ceases to cause it to run down hill. The only manner, therefore, in which this most valuable natural resource can be used to the detriment of the public, who own and cannot be deprived of the ownership of it, will be monopolization.

CALIFORNIA'S WATER POWERS.

Former Governor Pardee, addressing the White House Conference of Governors, said: "It has been estimated that the utilization of all the stream-power from Mt. Shasta to the Techachapi, a distance of over 500 miles, will produce 5,000,000 horsepower of electric energy, equivalent to 100,000,000 tons of coal per annum, costing at present prices over $1,000,000,000. The utilization of all this water power would therefore annually save $1,000,000,000 in cost of fuel, and produce $1,000,000,000 worth of new property. . . . . The streams from which power may be obtained have been, within the last few years, filed upon to that extent, under the lax laws of California, that the fear is expressed in many directions that the power has been already pretty well taken up. Many, if not most, of these filings are for speculative purposes only; others are for future development; but comparatively few of them are actually being used or are in process of preparation for utilization. The fear is prevalent that the acquisition of these water rights by private persons or corporations will lead to monopolies and over-capitalizations, and that these great and most important natural resources will not be at the cheap disposal of the public. In fact, already, by means of purchase, by bond and stock issues, as practiced by some of the railroad and industrial corporations, the electric power used in the various cities of Northern California has fallen very much into the hands of one corporation, which, it is claimed, is greatly over-capitalized. . . . . Bearing in mind the results of railroad monopoly by means of consolidations brought about by similar means, it is not difficult to foretell the results of similar monopolization of the power of the streams of California."

Former Governor Hughes, of New York, now Justice of the U. S. Supreme Court, in his 1907 message to the Legislature, said: "It is well to consider the great value of the undeveloped water powers. They should be preserved and held for the benefit of all the people, and should not be surrendered to private interests."

PUBLIC UTILITIES COMMISSION POWERLESS.

It is true that the California Railroad (Public Utilities) Commission can prevent the exactions of rates for electric power greater than are necessary to produce a fair income on the value of the property of an electric power company. But, if in the inventory of that property, there appears property in the shape of rights, given away for nothing by the public, to use the water belonging to the people, and if, in addition, as is the case, these property rights, already of enormous value, are rapidly increasing in value, it is evident that a public utilities commission cannot prevent the public being charged enormous sums of money for the utilization of the products of the use of its own property. If, however, the public had never permitted water rights to become private property, it is evident that the public could not be now assessed for the use of that which it gave away into private ownership.

There should be, therefore, the power lodged in some state agency to examine into water rights now claimed as private property and to initiate proceedings, where necessary, looking to the recovery to the public of those water rights which have not legally become private property.

WATER.

Of all the natural resources, there is none more valuable, more necessary to present and future generations of California than water. For domestic use, for navigation, for irrigation and for the generation of electrical power it is essential for the present and future prosperity of this State. From the mountain streams of California there may be developed, it is estimated, upward of 5,000,000 electrical horsepower. At present, the developed power from that source is in the neighborhood of 350,000 horsepower, with new developments constantly being made. Water-generated electricity runs our street cars, operates our mines, lights our streets and buildings, moves our machinery, pumps water for irrigation and other purposes, and is steadily being put to new and more extended uses. It is entirely safe to say that, within the next quarter of a century, electrical energy, developed by falling water, will be used for the commonest activities of everyday life. It will do most of the farmer's work; it will save the housewife much of her present drudgery; it will be necessary in every household and in every activity of our daily lives. It is estimated that 5,000,000 electrical hoursepower are equivalent to the steam power produced by the burning of 100,000,000 tons of coal per annum, worth, at present California prices, at least $1,000,000,000.

The utilization of all of California's water power will save many millions of dollars annually to the people of this State. A monopoly, therefore, of our water-generated electrical power would put the power-requiring industries and the people of this State at its mercy.

WATER-POWER MONOPOLY FORMING.

Already such a state-wide monopoly is in process of formation. Already there are such monopolies in the northern and in the southern part of this State. Such attempted monopolies are, from the very nature of things, inevitable; because more money can be made by combination into larger companies of a number of smaller ones. But the public, of course, does not get its share of the benefits derived from such combinations, although the public has given, for nothing, the use of the water necessary for the profitable operations of these monopolies.

STATE CAN REGULATE MONOPOLIES.

It is true that the State can regulate such monopolies after they are formed. But the regulation will be all the more certain and satisfactory if the water by means of which the electrical power is developed is not permitted to fall unregulated into private control and the right to use it is not permitted to become private property. An ounce of monopoly-prevention is worth a pound of monopoly-cure.

It is also true that large amounts of electricity are generated in California by steam power, with oil and coal as fuel, and that much steam power, especially in railroad locomotives, is generated by means of oil fuel. But oil is not inexhaustible, and cannot be as cheaply produced or transported as electrical energy can be. For similar reasons and because of the coal monopoly coal is high in price. Therefore the price at which electrical power is sold in California is higher than it would be if the use of the water by which it is now generated had not been permitted to become private property.

OVER-CAPITALIZATION OF POWER COMPANIES.

There can be no doubt but that, based upon the private ownership of the right to use water, the capitalizations of many, if not all, of the quasi-public power companies of California have been enormously inflated or "watered," and that the public, from whom the right to use the electricity-generating water was obtained, is, therefore, compelled to pay higher prices for electrical power than would have obtained had the public not given away into private ownership the right to use that water.

PUBLIC OWNS WATER.

Under the organic law, the property right to water itself can not be taken away from the public. But California, from the very beginning of her existence as a State, has permitted the right to use water to become, by appropriation and later by riparian right, private property. The very natural result has been that appropriation rights have been capitalized, and the people, who gave away those rights for nothing, have been compelled to pay to private parties returns upon their ever-enhancing values.

"COLD STORAGING" OF WATER POWERS.

Not only that, but private parties have appropriated, for nothing, the right to use water and have not put that right to any use that is beneficial to the public. Those unused rights, if used, would be valuable to the public. Those who have obtained them consider them as valuable assets, and the public is compelled to pay returns upon those unused rights to use the water belonging to the public.

To illustrate: An electric power company appropriates, for nothing, the right to use a certain quantity of the water belonging to the people. In order to develop electrical power by the use of that water, the company expends a million dollars in pipe lines, dams, ditches, buildings, generating machinery and transmission lines. On that million dollars, the company should, as a matter of course, be permitted to collect even generous returns from the public who use the power generated and transmitted by the company's property. But the company, very naturally, considers that the monopolistic right to use that water, given away for nothing by the people, is valuable—worth, say, another million dollars. The company, therefore, proceeds to collect from the public returns upon two million dollars—one million of actual investment, another million represented by the used water right, which the public gave away for nothing. The public, therefore, is charged double rates for the product of the use of its own water, with the title to which water it never has parted and never can part. And this is not all; for if there be, as there generally are, other water rights which may be used in competition with those already appropriated and put to a beneficial use, the company very naturally proceeds to appropriate them and thus keep them from being used in competition with itself. These other monopolized water rights, given away for nothing by the public, the power company, very naturally, considers as valuable assets. It, therefore, demands that the public shall pay it returns upon that value. The public, therefore, is compelled to pay the company returns on, say, three millions of dollars—one million of actual investment, one million of monopolized, used water rights, one million of monopolized, unused water rights; although the public gave away both used and unused water rights for nothing.

It is true that the law of this State provides that no water right shall become private property unless the appropriator shall, within a certain specified time after he posts his notice of appropriation, commence work upon the project and prosecute the work diligently and uninterruptedly to completion. But nothing has prevented appropriators of the right to use water from holding appropriations, year after year, without doing much, if any, work upon them. Furthermore, as soon as one appropriation lapsed because of a failure to do any work upon it, the same appropriator was permitted to post and file a new notice of appropriation. Thus year after year, a very valuable public asset and natural resource could be, and often has been, kept in cold storage and monopolized without rendering the public, who gave it away for nothing, any benefit whatever.

Furthermore, claiming the right to divert and use water, a rich, and therefore powerful corporation could, without complying with any requirement of the law, scare off any other proposed appropriator by threatening to annoy and harass him in the courts, at great cost of time and money to the bona fide, would-be appropriator. In these ways it was formerly possible, and still is on old appropriations, for the appropriator of the use of water for power and other purposes to monopolize and cold-storage the most valuable, and constantly becoming more necessary, natural resources of this State.

CREATION OF WATER COMMISSION.

The last extra session of the Legislature passed a statute creating a State Water Commission, to which all applications for permission to appropriate the use of water for power purposes shall be made. The same act also limited to forty years the term for which the use of water can be appropriated for such purposes. It also declared to be unappropriated all water or the use of water which has not been put, with due diligence in proportion to the magnitude of the work, to a useful or beneficial purpose.

INADEQUACY OF LAW.

But the act did not give the Water Commission the power to investigate power and other appropriations and determine, with, of course, an appeal to the courts, which appropriations had been exercised in accordance with the provisions of the old law, and which had not been so exercised and, therefore, were null and void. The result has been that many appropriations of the right to use water, which were neither made in good faith nor prosecuted to completion as the law directed, are still being held in cold storage; and those who would, in good faith, reappropriate and put them to useful and beneficial purposes have been scared off from making new appropriations by fear of costly, time-consuming litigation.

The Conservation Commission's bill, by which the method for the appropriation of the right to use water for all purposes is still further defined and rendered clearer, gives the Water Commission the authority to investigate power and other water appropriations made prior to 1911, and to declare, subject of course to appeal to the courts, which appropriations have been and which have not been made and pursued in accordance with the provisions of the old law, under which the appropriations were attempted. The State should assume full control of its property and see that it is, from the very beginning of its use, properly used, and that its use is permitted only to those who can and will use it with a due and full regard for the rights of its owners, the public.

TITLES TO WATER RIGHTS SHOULD BE CLEARED UP.

If the water rights of this State are to be finally, expeditiously and economically cleared up and determined, some agent of the State must be given the authority to go onto the streams, make the necessary investigations and declare, subject to court revision, what water rights are yet free for appropriation. Until that is done, no exact knowledge can be had of the amount of water open to appropriation.

Other states, notably Oregon, have adopted legislation similar to that proposed in the bill formulated by the Conservation Commission and now proposed to the Legislature, as the Act of 1911 directed the Commission to do. The Oregon law gives greater powers to the Oregon Commission than the Conservation Commission's bill proposes to confer upon the California Water Commission. But the Oregon Commission has made nearly 900 determinations as to water rights; and, according to its reports, less than half a dozen of those determinations have been appealed to the courts. The result has been that Oregon water rights have been confirmed upon bases which will render useless any further expensive and time-consuming legal contests concerning them.

The reason for assuming that the Oregon water rights are finally settled by the decisions of the Oregon Commission is that, first, no appeals have been made from the vast majority of those decisions; and, second, because as those decisions having been made as to and accepted by practically all the claimants on certain streams and stream systems, there is nobody left on those streams who has any interest in disturbing the present status. And the same conditions will naturally follow the Commission's work on other streams.

RESULTS OF CALIFORNIA WATER–RIGHTS LITIGATION.

In California, however, water litigation has never settled the rights of any persons other than those parties to each suit. If, therefore, there be one hundred water right claimants on any stream, the rights of each of those claimants can never be finally settled until each claimant sues every other claimant, or until, by some such procedure as the proposed bill provides, the rights of all the claimants are, without any great expense to the claimant, examined into and declared by a commission representing them all.

The right of appeal to the courts being reserved to each and every water-right claimant, the rights of every such claimant will be safeguarded as they are now. But, what is of equal or even greater importance, is that the rights may be speedily and economically adjusted and determined—which, under existing conditions, can not be the case until every claimant on each stream or stream system in California has sued, or has been sued by, every other claimant thereon.

As water rights in this State become more and more valuable—as they rapidly are becoming—the necessity for the speedy, economical and just determination of those rights becomes constantly greater, and in an increasing ratio. Millions of dollars have been spent in water litigation in this State, without settling the rights of anybody except those directly party to the litigation, and then only as between themselves. Many more millions will be spent, in litigation between individuals, without finally settling the rights of each claimant on a stream with regard to all other claimants on that stream, unless and until the State authorizes and empowers somebody to represent all the claimants.

The general public has direct and vital interest in the prosperity of the individual citizen. The general public suffers directly and indirectly when the money, energy, time and hopes of any of its citizens are dissipated in long-drawn out and expensive litigation. The general public and all water claimants have the right to demand that the rights to the use of the property of the public shall be speedily, economically and justly settled and determined. This, as the experience in Oregon has shown, will, the Conservation Commission is convinced, be brought about by the passage of the bill herewith proposed to the Legislature.

OBJECTION TO BILL.

It has been objected to this proposed bill that, because it gives judicial powers to the Water Commission, it is unconstitutional. The Commission, having taken the advice of eminent legal counsel in this regard, believes that the powers proposed to be conferred upon the Water Commission are not judicial, but merely administrative. And in support of its contention the Commission calls attention to the decision of the District Court of the United States for the District of Oregon in the matter of the determination of the relative rights to the waters of the Silvies River and its tributaries, in which the court declares that the Oregon Commission, whose powers are similar to, but greater than, those proposed to be conferred upon the California Commission, are not judicial but administrative.

NO MONOPOLY CREATED BY PROPOSED BILL.

It has also been objected to the bill proposed by this Commission for the regulation of appropriations of water, that it will create, instead of prevent, a power monopoly in this State, because it puts certain conditions and burdens upon power companies incorporated under it which are not borne by such corporations which came into existence under the old law. It is claimed that the fact that, under the proposed law, no power company can gain private ownership of water rights, will enable the old companies to monopolize the field, because they acquired, under the old law, private property rights in the water rights which they are using and enjoying.

The present law provides that no private property rights in water rights for power purposes shall be acquired. And it was quite vociferously asserted, when the bill was being considered by the Legislature two years ago, that its adoption would strike the death knell of power development in this State, and that no further appropriations of water for power purposes would be made under such a law. These prophets of evil were wrong in their prophecies. For, in the year and a half during which the State Water Commission has been in existence, 66 applications for permits to appropriate water have been made to the Board of Control (Water Power) and its successor, the Water Commission, and 14 permits for such purposes have been granted by the Commission. The total expenditures proposed under these approved 14 applications is $6,125,325, and the horsepower to be developed will be 132,648.

It was also strenuously objected to the passage of the act of 1911 that it would act as a deterrent to applications being made by poor men for the right to appropriate the use of water for power purposes. A glance at the report of the Water Commission will at once show that this prophecy, like the former, was a false one, for some of the applications made and the permits granted were for projects requiring the expenditures of small sums of money.

As for the present law or the proposed bill assuring to the old power companies a monopoly of the power markets in this State, the exact opposite is now under the present law and will be the result of the passage of the proposed bill, for such monopolies require the control of the water-right sources of power. And if, as under the old law—all arguments and assertions to the contrary notwithstanding—existing power companies could, by force of legal arms, by threatened law suits, by legal, extra-legal and illegal means, control, with or without using, those water rights which were required by would-be competitors, then they could, as a matter of course, monopolize between them the power markets of this State. And by dividing territory or by directly combining, the old and established power companies could have kept out of the State all competitors.

Under the present law, however, it is rendered impossible for the established companies to appropriate and put into cold storage any water which they had not appropriated and cold-storaged prior to the going into effect of the present law. When, therefore, any person or corporation desires to appropriate water under the present law he has at his disposal all those water rights—and there are many of them—which have not been appropriated and cold-storaged by the old companies, but which, under the old law, could have been appropriated and cold-storaged ahead of the possibility of independent appropriation. The proposed law does not change the present law with regard to the manner in which appropriations of the use of water for power purposes may be made. It simply adds to the State Water Commission's powers the authority to make an inventory of the State's water-power property and to list, so to speak, the appropriated and unappropriated water rights; so that every would-be appropriator may know what rights are unappropriated, and that the Water Commission may know whether or not there is water for the use of any person applying to it for a permit therefor. The proposed bill goes only a step further than the present law in rendering more certain the prevention of power monopoly at the fountainhead, viz., the water powers on the streams of the State.

As for the contention that the prevention of the acquisition of water rights as private property puts or will put the companies having such property in command of the power field in this State, this is conclusively to be said: The present law and the proposed bill provide that water appropriations may be made only for forty years. It is argued that, because they are not compelled to pay off their bonds in forty years, but can redeem the old ones with new issues, the old companies can, therefore, undersell new companies, which would be compelled to lay aside funds for the amortizing of their bonds at the expiration of the term of their license, viz., forty years. Those who make this assertion forget, however, that the old companies have capitalized, and capitalized very heavily, the property rights they have acquired in water rights, and made them the bases upon which enormous issues of stocks and bonds have been made. On these issues of stocks and bonds—these enormous "waterings" of capitalizations—the old companies must pay dividends and bond interest. The new companies are deprived of the power to capitalize as property the rights they have acquired to use the waters of the State—have been so deprived, because they can get no such property rights.

It is, therefore, apparent that the new companies, having no "water" in their capitalizations based upon property in water rights, being compelled to amortize their bonds at the expiration of forty years, will be no worse off, in the matter of charges for what they have to sell, than will be the old companies, which are compelled to charge enough, for what they have to sell, to pay dividends and bond interest on oceans of capitalization "water" based on the enormous and constantly-increasing values of their property rights in water rights.

Nor will the very small and insignificant charges made by the State under the present law, and continued in the proposed bill, serve, as the opponents of the present and the proposed law say it will, to give the old and heavily overcapitalized power companies, which do not have to pay such charges, any advantage over the new companies. These charges are so small that they can be and will be absorbed without adding any burdens to the consumers of power.

PRESENT DETERMINATION OF WATER RIGHTS.

As the California law now is, water rights have been determined, are now and will be determinable only by enormously costly and time-consuming suits between individuals, which settle, as has been said, only the rights as between those who are parties to each suit—leaving the rights as between those who are not parties to such suits undetermined and unsettled until finally determined and settled at the end of a long and costly series of suits.

The Conservation Commission, therefore, believes that it would be a distinctly advanced and very advantageous condition if there were given to the Water Commission, representing the public generally and every water claimant in particular, the authority to examine into and declare, subject to appeal to the courts, the rights of the claimants on the streams of this State to the use of the water belonging to the public.

ANOTHER OBJECTION TO BILL.

Certain individuals and interests oppose the proposed bill, asserting that it would increase, instead of decrease, litigation as to power rights.

In reply to that assertion, the Conservation Commission points to the following facts and considerations: Water rights in this State are rapidly becoming more valuable. The more valuable such rights become, the greater is the temptation, even the necessity, to indulge in costly litigation concerning them. As the law now is only the rights of those who have entered into litigation are settled, and then only as between the parties to each separate suit. There is possible no general settlement of rights on any stream, unless each individual claimant sues every other individual claiming rights on that stream. Under such conditions it lies in the power of individuals to keep water claimants involved in litigation indefinitely.

But if, as has happened in Oregon, the State gives the Water Commission authority to investigate and declare the rights of all claimants upon a stream, with, of course, an appeal to the courts, then, as has happened in Oregon, the interrelated rights of all claimants on a stream may be finally, speedily and inexpensively determined. And, unless some claimant is dissatisfied with the decision of the Commission, there will be no further litigation in regard to those rights—as has been the case in Oregon.

In Oregon, of 865 cases in which water rights were determined by the State Water Commission, only some three or four have been appealed to the courts.

Furthermore, the proposed bill provides that it shall be discretionary with the Water Commission whether or not it shall investigate and determine the rights of water claimants on any stream, even if demands shall be made that it shall so investigate and determine. It is, under the provisions of the bill, for the Commission to determine whether or not the public good will be subserved by the making of such investigation and determination. This provision of the bill, the Conservation Commission feels sure, will further tend to restrict water litigation in this State.

As the proposed bill recognizes ''vested and existing rights'' it will, instead of promoting litigation, the Conservation Commission believes, practically prevent further water litigation in this State, as the decisions of the Oregon Commission have practically done away with water litigation in that State.

WATER RIGHT TITLES SHOULD BE SETTLED.

The titles to water rights in this State should be as finally established and determined as are the titles to real estate. The titles to our real estate date back to and are determined by the soundness or unsoundness of the titles of the original private owner thereof. Those original titles were judicially determined long ago. But there never had been any method, and there is no method now, by which the titles to the use of water can be quickly, inexpensively and finally determined. Real estate would now be in the same condition if the title to it had not been determined by wholesale long ago. The owner of real estate gets title to a definite quantity of land; and the existing quantity of that land never varies. But the right to use water is hedged about with so many necessarily varying conditions of demand for a constantly varying amount thereof, that, until the right of every claimant, as compared with that of every other claimant, on each stream has been settled and determined, litigation over water rights will always be imminent and unavoidable.

Until water rights are determined from a wholesale standpoint, water right titles in California must remain unsettled and the possessors of the longest purses can indefinitely harass and annoy those whose purses are not so long.

RIPARIAN RIGHTS.

There is in this State a modified doctrine of riparian rights. Under such rights, proprietors of riparian lands are permitted to require that all the waters of a stream, on which their riparian lands are situated, shall flow to their riparian lands, excepting such waters as may have been acquired, by five years prescriptive use, by appropriators, or have been used by superior riparian proprietors.

Land flooded by waste water, near Los Banos, California.

The result of this is that enormous quantities of water, which might be, and ought to be, put to some beneficial use are permitted to run to waste into the ocean without doing anybody any good, and in districts subject to flood doing great harm.

There are, therefore, in this State, on the one hand, hundreds of thousands of acres of semiarid and irrigable lands, and of overflow lands on the other hand, which, because of the wasteful exercise of the right of riparian proprietors cannot be cultivated and are, therefore, of comparatively little use to the people of California. The Conservation Commission and all others who desire to see the water resources of California developed and used for the benefit of the people, look with the greatest disapproval upon this right and privilege of the riparian proprietors to waste and turn into a devastating element a most valueable natural resource.

NATURAL RESOURCES SHOULD BE USED.

The Conservation Commission does not care who uses our natural resources, so long as they are used, not wasted, not destroyed, and not hurtfully monopolized. The Commission cares not who uses the waters of this State, the appropriator or the riparian proprietor, so long as they are put to a useful and beneficial purpose by somebody. If the riparian proprietor will not or cannot put to a beneficial use the water that flows down to his land, the Conservation Commission is firmly of the opinion that he should be compelled to permit somebody else to use it—he should not be permitted to let it go to waste and become a nuisance.

Land swamped by waste water from canals in and about Los Banos, Merced County.

MISUSE OF RIPARIAN RIGHTS.

Neither should the riparian proprietor be permitted to put all his riparian water to an entirely inferior and unnecessary use, to the exclusion of many others who, by appropriation, could put some of it to a far superior use. One large riparian proprietor for instance, in the San Joaquin Valley, floods his almost limitless cattle pastures with unnecessarily enormous quantities of water, and does not permit even the excess to be used on the irrigable lands of others, where its use would be of great value to those others and therefore to the State.

A tithe of that water put upon that riparian land would produce the same amount of grass, for cattle pasture, that the tremendously wasteful use of the water now produces. Because of such wasteful use of the water on those riparian lands, there are many thousands of acres of other semiarid, irrigable and fertile lands, which, because they can not be supplied with the excess water which the riparian proprietor allows to run to waste, are nowhere near so productive or valuable as they could be made to be if this wasted excess-water were allowed to be put upon them.

RIPARIAN DOCTRINE NOT APPLICABLE TO CALIFORNIA.

The riparian doctrine is not and never was applicable to the arid and semiarid lands of California. It is applicable only to such humid climates as that of England, where it originated, and where the streams, not being useful for irrigation, are used only for navigation, drainage, fisheries, domestic use, and other similar purposes.

RIPARIAN DOCTRINE NOT STATUTORY.

Neither was the riparian doctrine in this State the result of direct legislative action. It was made the law by the adoption of the common law, and is one of many similar instances where the courts have stepped outside of their prescribed rights and have invaded the rights and prerogatives of other departments of the government of the States and the Nation.

RIPARIAN RIGHTS VESTED.

The Conservation Commission endeavored to find some way by which the Legislature could compel the riparian proprietors of this State either to reduce their rights to use riparian waters to actual practical use or to permit someone else to do so—in other words, to cease wasting one of the most valuable natural resources of this State—so long as there is a pressing and clamorous demand for use of the excess water on lands other than those of the riparian proprietors. But the Commission was assured by eminent legal advisors that, as the Supreme Court had conferred riparian rights upon riparian proprietors, those rights were vested property rights of which the holders can not be deprived unless compensation be made therefor. There appears to be but one way in which these riparian proprietors may be compelled to part with their right to waste the waters of our streams—and that is by condemning those rights and making jury-determined compensation for them.

MODIFICATION OF RIPARIAN DOCTRINE.

Later decisions of the Supreme Court, however, seem to show a tendency on its part to modify its previous declaration to the effect that the rights of the riparian proprietors are higher and more sacred than those of any other class of our people. In an article in the *California*

Law Review for November, 1912, Mr. S. C. Wiel quotes from the decision of the Supreme Court—*San Joaquin etc. Co.* vs. *Fresno Flume, etc. Co.*, 158 Cal. 626—as follows: "The fair apportionment and economic use of the waters of this State are of the utmost importance to its development and well being. The problems presented never came within the purview of the common law. They have been of necessity, therefore, and must continue to be solved by this court as cases of first impression, and as in the past, so in the future, if a rule or decision at common law shall be found unfitted to the radically changed conditions existing in this State, so that its application will work wrong and hardship rather than betterment and good, this court will refuse to approve and follow the doctrine."

Mr. Wiel also quotes from *Gallatin* vs. *Corning Irrigation Company*, 44 Cal. Dec. 169, as follows: "Storm or flood water in a stream does not pertain to the riparian right, if diversion thereof to distant lands will not impair riparian lands, and the ruling permits such diversion against any riparian opposition." And the court also says concerning decisions in preceding cases, that: "These decisions, in effect, establish the just rule that flood waters which are of no substantial benefit to the riparian owner or to his land, and are not used by him, may be taken at will by any person who can lawfully gain access to the stream, and conducted to lands not riparian, and even beyond the watershed, without the consent of the riparian owner and without compensation to him. They are not a part of the flow of the stream which constitutes 'parcel' of his land, within the meaning of the law of riparian rights."

It requires but a step more to be taken by the court for it to be held that riparian owners cannot forever either waste the normal flow of streams or prevent that portion of it which they cannot or will not themselves use from being used by other parties.

The Conservation Commission regards it as extremely unfortunate for California, that any person should have it in his power to demand and require that so valuable a natural resource as water, which is so necessary to the immediate and future advancement and prosperity of this State, should be permitted to run to waste because of the court-conferred right to permit such waste.

STATE MIGHT CONDEMN RIPARIAN RIGHTS.

The Conservation Commission is of the opinion that the State of California could well afford to condemn and, if necessary, pay for these riparian rights and permit the water, thus made available for highly beneficial uses, to be appropriated and put upon the many thousands of acres of fertile lands where it is now so much needed. In the opinion of the Commission, the State, having through its agent, the Supreme Court, given to riparian proprietors these rights, the State could well afford to take them back and compensate their present owners for them. The result of such action on the part of the State would be the creation of a vast amount of new wealth and a greater prosperity for millions of present and future California citizens.

UNDERGROUND WATER.

Underground waters are, in California, of very great value for irrigation purposes, especially in those large sections of the State where irrigation from streams is not easy or cheap. From this underground source much irrigation water is being drawn and still more will, in steadily increasing amounts, be drawn. In the San Joaquin and Sacramento valleys and, especially, in southern California is the subject of underground water receiving attention. The subject-matter is, however, so vast that the Conservation Commission felt that it had neither the time nor the funds necessary to make a satisfactory investigation of it. The question of replenishing, by artificial means, underground water supplies, so that they might furnish greater amounts of water for irrigation, seemed to be within the ability of the Commission for investigation. It, therefore, secured the services of Mr. Charles H. Lee, of the U. S. Geological Survey, to examine and report on the results obtained from such an artificial replenishing of underground waters in the San Bernardino Valley where the winter floods of at least one stream are thus stored. Previous to this artificial, subterranean storage of the waters of this stream, its winter floods not only ran to waste into the ocean, but also did more or less damage. It is practically certain that there are other large areas of this State in which similar artificial, subterranean storage of water for irrigation purposes may be made. Mr. Lee's report will be found attached hereto.

APPROPRIATION OF UNDERGROUND WATERS.

There being no statute law in this State regulating the right to appropriate and use underground waters, such rights have been so far regulated only by court decree. Such method of regulation, the Conservation Commission believes, is not the best method. It should be by well considered statute laws. The Commission does not hesitate to predict that, as the rights to the use of surface waters have been the subject of long continued and very costly litigation in this State, because of the absence of proper statutory regulation of such rights, so, in the absence of proper statute law concerning it, the rights to appropriate and use underground water will be the subject of constantly increasing litigation between those to whom it is becoming, with constantly increasing rapidity, more necessary, and, therefore, more valuable.

CAREY ACT.

There are in this State large areas of semiarid lands that can be irrigated and made highly productive by irrigation. A superficial investigation has led the Conservation Commission to the belief that, under the provisions of the Carey Act of Congress, large areas of this State may be transformed from deserts or practically deserts into most highly productive farms. The provisions of the Carey Act are as follows:

TEXT OF CAREY ACT.

"That to aid the public land States in the reclamation of the desert lands therein, and the settlement, cultivation and sale thereof in small tracts to actual settlers, the Secretary of the Interior with the approval of the President, be, and hereby is, authorized and empowered, upon proper application of the state to contract and agree, from time to time, in each of the states in which there may be situated desert lands as defined by the act entitled "An act to provide for the sale of desert land in certain states and territories," approved March third, eighteen hundred and seventy-seven, and the act amendatory thereof, approved March third, eighteen hundred and ninety-one, binding the United States to donate, grant and patent to the State free of cost for survey or price such desert lands, not exceeding one million acres in each state, as the state may cause to be irrigated, reclaimed, occupied, and not less than twenty acres of each one hundred and sixty-acre tract cultivated by actual settlers, within ten years next after the passage of this act, as thoroughly as is required of citizens who may enter under the said desert land law.

Before the application of any state is allowed or any contract or agreement is executed or any segregation of any of the land from the public domain is ordered by the Secretary of the Interior, the state shall file a map of the said land proposed to be irrigated which shall exhibit a plan showing the mode of the contemplated irrigation and which plan shall be sufficient to thoroughly irrigate and reclaim said land and prepare it to raise ordinary agricultural crops and shall also show the source of the water to be used for irrigation and reclamation and the Secretary of the Interior may make necessary regulations for the reservation of the lands applied for by the states to date from the date of the filing of the map and plan of irrigation, but such reservation shall be of no force whatever if such map and plan of irrigation shall not be approved. That any state contracting under this section is hereby authorized to make all necessary contracts to cause the said lands to be reclaimed, and to induce their settlement and cultivation in accordance with and subject to the provisions of this section; but the state shall not be authorized to lease any of said lands or to use or dispose of the same in any way whatever, except to secure their reclamation, cultivation and settlement.

As fast as any state may furnish satisfactory proof according to such rules and regulations as may be prescribed by the Secretary of the Interior, that any of said lands are irrigated, reclaimed and occupied by actual settlers, patents shall be issued to the state or its assigns for said lands so reclaimed and settled: *Provided*, That said states shall not sell or dispose of more than one hundred and sixty acres of said lands to any one person, and any surplus of money derived by any state from the sale of said lands in excess of the cost of their reclamation, shall be held as a trust fund for and be applied to the reclamation of other desert lands in such state. That to enable the Secretary of the Interior to examine any of the lands that may be selected under the provisions of this section, there is hereby appropriated out of any moneys in the treasury, not otherwise appropriated, one thousand dollars."

ALL WATER RIGHTS SHOULD BE REGULATED BY THE STATE.

Water for all purposes, irrigation as well as power, is rapidly becoming more necessary to the proper and full development and habitability of this State. The State, therefore, is vitally interested in seeing to it that the old slipshod and unsatisfactory methods, under which any person could appropriate and put or not put the waters of the State to beneficial use, shall be displaced by a more satisfactory and determinative method for the regulation and control of water appropriations. The appropriation of water for power purposes has already been put under State regulation, and the would-be appropriator must submit his proposal to appropriate to the Water Commission—he is no longer permitted to initiate such appropriations simply by posting and recording a notice—he is no longer permitted to file one appropriation on another far beyond the capacity of the stream to furnish the water even previously appropriated. There is now a State authority to see to it that appropriations for power purposes are made in good faith and carried out in good faith; and that, when good faith in either particular is wanting, the attempted appropriation is voided and annulled. But there is no power lodged in any State agent to clear out of the way appropriations for power purposes made under the old law and not carried on with the good faith required by that old law.

Appropriations of water for power purposes are, however, of no greater importance to this State than are appropriations for irrigation purposes. With regard to irrigation appropriations the old law still prevails. Any person may post and record his notice for new irrigation appropriations, whether or not there is enough unappropriated water in the stream to satisfy even previously made appropriations. And having, in this slipshod and faulty manner, made his appropriation, the appropriator must, even if he be in good faith, find out for himself whether or not there is, or will be, enough water in the stream, unclaimed by previous appropriators or riparian proprietors, to satisfy his needs. If, on the other hand, such an appropriator be not in good faith, he can, under the law as it now is, make his irrigation appropriation and sit down upon it, until, at great expense of time and money, he shall be dispossessed of it by some private individual.

Overflow water from ditch near Los Banos, Merced County.

"CAVEAT EMPTOR" DOES NOT APPLY.

"Caveat emptor" may apply well where only individuals are the parties in interest. But the whole people of this State are vitally interested in seeing to it that no appropriative water monopolies are created, and that any unused portion of this invaluable natural resource shall be at the disposal of those who, in good faith, desire to appropriate and use it. The State should allow none of it to be held unused in cold storage.

STATE AGENCY NECESSARY.

The monopoly of irrigation water is not so easily accomplished as water monopoly for power purposes. But water for irrigation is necessary for the rapid population of a very great portion of the State. And, as the population of any portion of the State grows more dense, the need of water for irrigation purposes grows more intense and its value, therefore, always greater. It is necessary, therefore, that in the case of water for irrigation, as well as power, purposes, there should be some agency of the State to which would-be appropriators of water for irrigation purposes must apply, in order that there may not be confusion worse confounded in the matter of these appropriations. That State agency should also have the authority to examine and investigate the appropriations that have already been made, and, subject, of course, to court determination, find out what appropriations have been made in compliance with the law. In this way, and in this way only, can the titles to water rights be cleared up and long-drawn out and enormously expensive litigation over irrigation water rights be avoided. The litigation, costing millions of dollars, and, in not a few cases, stopping for many years the development of large sections of this State could have been avoided had the State had some agent through whom the steps preliminary to the actual putting to use of water should have been referred.

SETTLED WATER RIGHTS NOT DISTURBED.

In those portions of this State where the rights to the use of water have been finally determined and accepted by everybody, there is no crying necessity for the exercise of any State supervision in the matter of the rights already finally determined and universally accepted. And in such cases no State agency could or ought to interfere. But these final determinations of water rights have been made only after long and expensive litigation by individuals. Appropriators in those portions of this State where water rights have not yet been finally determined and accepted should not be put to the same private expense for the purpose of determining water rights. For their purposes, if for none other, the State should have an agency to which would-be irrigation appropriators should apply, and to which the power has been delegated to examine into, where necessary, the bona fides of appropriations already made or attempted.

STATE SHOULD KNOW HOW MUCH WATER UNAPPROPRIATED.

Before the State should attempt to grant a right to appropriate and use any of its water property, it should know how much of that property, not being already put to a beneficial use, is appropriatable and may be put to other beneficial uses. Before the State can give a permit, that really means anything to the permittee, to use any of its water property it must know how much of that property it has at its disposal to grant under such permits. If the State has not such knowledge, its permits are of uncertain value, and the holders of them are compelled to take all the risk involved by other adverse possessory rights. It is, therefore, necessary for the State to know, not only what water has already been put to beneficial uses for power purposes, but also what waters have been appropriated for all other purposes. The present slipshod, haphazard method of appropriating water for irrigation purposes and the former slipshod and haphazard method of appropriations for power purposes have led to a condition of affairs where the last would-be appropriator, either for power or irrigation, must proceed to divert his water in the face of a possible lawsuit; or, having gotten his permit, finds that the permit is useless because all the water in that particular stream has already been appropriated; or, in order to protect himself, must buy off the holder of a shadowy, unperfected prior right to the use of water, which right, however, is of sufficient validity to support a law suit. All these troubles can be, ought to be, avoided if the State is to protect and regulate, as it should, the right to use its waters. It is, of course, impossible for the State to do that, unless it knows what valid appropriations and other rights are in existence.

LAND TITLES PROTECTED.

Real estate titles are protected by public records which are recognized by the courts and which give a minute history of the title to every parcel of land. There should be an agency of the State through which the titles to water rights may be at least equally well defined and settled; and the right to appropriate water, for any purpose should no longer be left to the desire, bona fide, speculative or otherwise, of the individual, expressed simply by the filing and recording of a notice, with no agency of the State whose business it is to supervise the transaction at any point.

"BULLETIN 100" ON NECESSITY FOR STATE REGULATION.

The unnecessary danger, inconvenience, law suits, expenses and other annoyances, some of them very serious in their results to individuals and even communities, resulting from the absence in this State of any central state agency with authority to initiate proceedings to straighten out existing water right tangles and to prevent others from being created, are well described and commented on in the famous and authoritative ''Bulletin 100,'' issued by the U. S. Department of Agriculture, in 1901. This bulletin referred especially to California conditions, and was written and compiled under the direction of the following well-known Californians: Professor C. D. Marx, then and now of Stanford University and the present chairman of the State Water Commission of California; Professor Frank Soule, then and now of the University of California; C. E. Grunsky, formerly a member of the Panama Canal Commission and the San Francisco Water Commission; Marsden Manson, formerly City Engineer of San Francisco and a member of its Water Commission; James D. Schuyler, the eminent hydraulic engineer, and Messrs. James M. Wilson, Edward M. Boggs, and William E. Smythe.

QUOTATIONS FROM "BULLETIN 100."

Mr. Elwood Mead, the great irrigationist, formerly of the U. S. Department of Agriculture, now head of the Department of Irrigation of Australia, speaking of the necessity for State control of the waters of this State, in "Bulletin 100," page 54, said:

"California also needs a law which will stop all further claims to water where the entire supply is now appropriated. Every ditch which can not be filled, every pump which can not be operated, every acre of land prepared for irrigation which is in excess of what the stream will serve, means either a loss of the money invested or the robbing of an earlier user; sometimes it means both. So long as the right to make new appropriations is unrestricted, so long will old rights be insecure." * * *

"The advantages of public control which would restrict the construction of additional works until it had been demonstrated that there was water for their use and provide for a just division among the works already in existence seemed so obvious that I sought from those directly interested an explanation of why an attempt had not been made to secure it. The reply in every case was practically the same. All classes of water users and water claimants united in saying the state government did not offer any prospect of remedy and that they could not afford to take any chances but preferred to come to an agreement among themselves."

"It is not believed that this fear is well founded. It would take remarkably corrupt officials to create evils equal to those now existing. The notion that we must have human nature reformed and all the state machinery perfected before anything is done toward the regulation of streams is certainly erroneous. That any sort of system will remedy all these evils, or entirely avert controversies, is not expected. No matter how efficient a code of laws may be devised, or how honest and efficient their administration, there is certain to be friction because of the conflicting views created by the unfortunate absence of definite control in the past."

Speaking of the reports of Messrs. Grunsky, Smythe, Soule, and Judge Works, which show that water litigation, costing millions of dollars, have settled only the interrelated water rights of individuals, but have not settled the water rights of those not parties to the suits, Mr. Mead (page 61, "Bulletin 100") says:

"The showing made by these official records is referred to in order to make clear that the State has a duty toward these creators of wealth which it is not discharging so long as it leaves any of them in doubt as to what is their just share of the river's flow, and puts upon them the entire expense of securing that share. Appropriators of water ought not to be subjected to the expense of protecting their rights. That is a duty of the Government and should be paid for by public taxation. It is the only way in which impartial justice can be assured. Leaving the ownership of streams to be fought over in the courts and titles to water to be established in ordinary suits at law has never resulted in the creation of satisfactory conditions and never will. As it now is the same issues are tried over and over again. Each decision, instead of being a step toward final settlement, too often creates new issues which in turn have to be litigated. The suit of one canal company against another company may settle the rights of these parties as against each other, but it settles nothing with respect to other appropriators not made parties to the litigation and the whole controversy may be opened up at any moment. A stream with three appropriators has the foundation for at least three lawsuits: A *vs.* B, A *vs.* C, and B *vs.* C. If there are four appropriators the way is open for six adjudications. Often the appropriators of a stream are numbered by scores and even hundreds. It might be interesting to compute the number of legal conflicts necessary to a judicial determination of the relative rights on streams like the Yuba, and these will, under the present procedure, increase with the years because there will be new appropriations and old ones will be extended. It is not surprising that the petition for this investigation should state that the litigation is appalling. It could not be otherwise. Litigation is as natural a product of the absence of public control as are weeds in a neglected field."

"There can be no stability under the present situation. The law affords no means of enforcing a right when once adjudicated except through another lawsuit. Irrigators can not live in peace. Litigation and controversy are forced upon them.

To acquiesce in a new diversion, through sympathy, or for the sake of peace, may lay the foundation for an adverse right by prescription and end in the curtailment or the overthrow of all the rights of the peace lover. This uncertainty and the fear of being supplanted which grows out of it is the cause of much of the hostility with which appropriators regard new ditches, and is the motive behind much of the extravagance and waste which sometimes prevail in the use of water. With a right clearly defined and protected, its owner has no fear of shortage in time of need, and he is willing, when his crops do not require water, to have it utilized by others. But when the right is insecure or not defined the instinct of self-protection makes an Ishmaelite of every water user. His hand must be against every man, as every man's hand is against him. Duty to himself and to those dependent on him makes it necessary that he shall use all means at his command to discourage the establishment of rights which may later interfere with his necessary use of water. Under such a system every new appropriator is a new element of uncertainty and another menace to the peace of the community. The whole system is wrong. It is wrong in principle as well as faulty in procedure. It assumes that the establishment of titles to the snows on the mountains and the rains falling on the public land and the waters collected in the lakes and rivers, on the use of which the development of the state must in a great measure depend, is a private matter. It ignores public interests in a resource upon which the enduring prosperity of communities must rest It is like A suing B for control of property which belongs to C. Many able attorneys hold that these decreed rights will in time be held invalid, because when they were established the public, the real owner of the water, never had its day in court." * * * *

"Under a rational irrigation code titles to water are established like titles to public land, by proceedings which are wholly ministerial. This is the case under the Northwest irrigation act of Canada, and under the Wyoming irrigation law, where the supreme court recently held that even in determining territorial rights the state board of control acts as an administrative and not as a judicial body. (*Farm Investment Co.* vs. *Carpenter*, 61 Pac. Rep. 258.)"

"If the amount of an appropriation depends upon the volume of water beneficially used, the first step in the determination of a water right should be a physical investigation. The water supply should be measured, the capacity of the ditch which diverts it should be determined, and the area and location of the land on which the water has been used defined. With these facts before it, the tribunal which fixes the amount of a water right has only a problem in mathematics. The judicial element is no more present than it is in fixing the taxable value of a horse or cow, in passing upon an assessment schedule, or determining whether or not a homesteader has complied with the land law. Determining the amount of water used is no more a judicial act than the fixing of a tax rate by a board of supervisors, the leasing value of land by a board of land commissioners, or hundreds of other acts of official and everyday life which require the exercise of ordinary judgment and discretion. One of the most mistaken and injurious beliefs is that rights to water can be settled only through a lawsuit. Nevertheless, the opinion seems to prevail widely, not alone in California but throughout the arid region, that water is a kind of property which must be disposed of exclusively by the courts."

PRESENT WATER TITLES NOT ABSOLUTELY SURE.

Especial attention is called to that sentence of Mr. Mead's report, in which he says: "Many able attorneys hold that these decreed rights will in time be held invalid, because when they were established the public, the real owner of the water, never had its day in court." In other words, the people of California own the water of this State. If, then, A sues B for the settlement of a water right and gets a judgment confirming to him the right to use a certain amount of water, that judgment confers title to A only as regards B, but has no binding force with regard to C, D, E, or F, none of whom was party to the suit or had his day in court with regard thereto. So C, D, E, and F can each sue A, and be sued by each other. But, in none of the suits for the settlement of water rights in California has the public, the real owner of the water, been made a party, or had its day in court. So, after A, B, C, D, E, and F have each sued, and been sued by, the other, and have received judgment, or have divided, by agreement among themselves, the waters of a stream, the public, the real owner of the water, against whom the statute of limitations does not run, may step in and, suing them all, take from them their costly litigated water rights, on the ground that it, the real owner, never having had its day in court, is not bound by any of the preceding litigation, to which it was not a party.

It, therefore, appears that, in order to assure their titles to water, all present users of it, as well as all those who may appropriate it, ought gladly to welcome the appearance of the State in the settlement, adjudication and determination of past, present and future water rights. The bill proposed herewith, following the general lines which have worked so well in other states, provides, in the State Water Commission, an administrative body through which the legal tangles of present water rights may be straightened out and future tangles prevented.

INVESTIGATION OF WATER LOCATIONS.

In September, 1911, in conjunction with the Board of Control (Water Power) the Commission began an investigation of all locations (under sections 1410 to 1422, C. C.) of water for power purposes. Agents were sent to every county in the State to make an abstract of the location notices. These abstracts, aggregating about 30,000 in number, are part of the records of the Water Commission. A card index to streams with a cross reference to the name of the appropriator has been prepared and is on file in the office of the Commission, so that any location notice may be easily found. Five graduate civil and hydroelectric engineers were employed by the State Water Commission to investigate conditions on certain streams, principally to determine the amount of development work performed by the locators of water rights under the old method of appropriation. These men examined about fifteen hundred appropriations situated in Plumas, Butte, Tehama, Shasta, Yuba, Sacramento, Yolo, Tuolumne, and Inyo counties. It is apparent from the investigations made and statements secured by the engineers from residents in the vicinity of the point of diversion of the respective locations that fully ninety per cent of the 1,500 investigated were made only for speculative purposes. Many water locations have been held for years in plain violation of the spirit and letter of the law, without sufficient work being done upon them to show a bona fide intention to divert water for a beneficial use.

ILLEGAL APPROPRIATIONS SHOULD BE VOIDED.

The Conservation Commission believes that such claims should not only be declared null and void, but that the water rights held under them should be restored to the public control, so that they may be located by others and used.

It is true that any individual who wants to use the water now held in illegal cold storage under these voidable, but not voided, locations may do so. But, in order to do that, the individual is compelled to bring suit and expensively litigate the matter through the Supreme Court. Nobody will do that until it becomes actually necessary. The result is that much water is being kept in cold storage, being neither used by those who hold it, nor its use permitted by others.

WATER IS PUBLIC PROPERTY.

Water being the property of the public and its use being valuable to the public, the State should see to it that all unused locations should actually be specifically declared null and void and the water restored to public control. A valuable natural resource like water should not be allowed to be kept in cold storage; and no individual should be compelled to go to the annoyance, trouble and expense, in time and money, necessary to the declaration by the State that the State's property is being held in cold storage in contravention of public policy and the law. It is true that the law declares such water locations null and void. But no agency of the State has been given authority to investigate these locations and bring any sort of a proceeding looking to their actual annulment. The bill proposed by the Conservation Commission proposes to supply this deficiency and to give to the Water Commission the authority to initiate such proceedings.

NOT SOUND PUBLIC POLICY TO PERMIT "COLD-STORAGE" OF WATER.

It is claimed, to be sure, that those who have made such locations and, under them, are keeping valuable water rights in cold storage should be permitted to continue to hold them until some other individuals sufficiently desire possession of them to induce them to bring the necessary suits and spend the necessary money to obtain a final annulment of them. The Conservation Commission does not believe that it is sound public policy for the State to permit anybody to break and continue to break the law. Nor does the Commission believe that it is sound public policy to permit anybody to cold-storage a natural resource so essential to the public welfare as water is. And the Commission also believes that it is not sound public policy for the State to compel individuals to spend their time and money to take public property out of cold storage and make it available for the use of the public.

Rather than enter into long and costly law suits for the restoration to the public's use of cold-storaged water rights, many persons and corporations have paid the illegal holders of such rights large sums of money to relinquish or transfer them. Such expenses the public is, of course, made to repay to those who incur them. The Conservation Commission does not believe that the public should be compelled to pay this cost of blackmail for the enjoyment of the use of its own property. The public should be protected from this sort of thing by the empowering of an agent of the State to restore to the public all water locations which have not been or are not being developed and put to use as the law plainly requires that they shall be.

APPROPRIATORS SUPPOSED TO KNOW LAW.

It is claimed that this will work hardships upon those who made the locations. The locators are supposed to have known the law when they made their locations and not to have forgotten since then what the provisions of the law are. They, therefore, exercised their location rights with a presumably full knowledge of the law and their obligations under the law, and are attempting to hold the property of the public knowing that they are breaking the law. The Conservation Commission does not believe that it is good public policy to suspend the law because its enforcement may work supposititious hardship upon him who is knowingly or even unknowingly breaking the law.

PUBLIC SHOULD BE PROTECTED.

Finally, the Conservation Commission does not believe that it is good public policy to compel the public to pay any more for the enjoyment of the use of its property than is actually necessary to provide the artificial means to put that property to a beneficial use. The right to use the property of the public for the public's benefit should not, the Conservation Commission believes, be permitted to become, at the cost of the public, the subject of private speculation by illegal or even legal means.

For all these reasons, therefore, the Conservation Commission insists that the State should empower the Water Commission to initiate proceeding for the annulment of illegal appropriations of the waters of the State.

WATER LAWS OF OTHER STATES AND COUNTRIES.

As it was necessary for the Commission to have at hand a digest of the laws of the various nations and the states of the Union in regard especially to forestry and water laws, Mr. Milton T. U'Ren, then in the city of Washington and therefore able to avail himself of the Congressional Library, was employed to collect these data for the Commission. His final report is as follows:

FINAL REPORT OF THE INVESTIGATION OF THE STATUTES, LAWS AND CONSTITUTIONAL PROVISIONS RELATING TO WATER AND WATER POWER.

In presenting this final report of the investigation of existing legislation pertaining to water and water power I shall set forth the scope of the field covered and shall give a brief summary of previous reports rendered.

In the United States the efficient regulation of the use of water must come from the several states. The Federal control is merely incidental. The Federal Government exercises control through its power over navigable streams and as the owner of the public domain. The Federal Government has no laws dealing directly with water and water power. It exercises control indirectly through the departments. Through the War Department it exercises control over navigable streams. It has been the practice to require as a condition of any grant to obstruct navigable streams or to use the water thereof that the grantee conform to certain provisions set forth in the grant. Acts of Congress granting the right to dam navigable streams or to divert their waters have many times likewise contained conditions giving the Federal Government the right to control the use of the water or water power resulting therefrom. The Bureau of Forestry of the Agricultural Department controls the construction and operation of water power plants on the Federal domain, but fixes certain conditions to the grants permitting individuals to use the public domain. These practices of the Federal Government have been severely criticised by those claiming a desire to develop the country, but in the absence of state laws on these subjects the actions of the Federal officials have been the only thing standing between the public and the complete gobbling up of all reservoir sites by private speculators. No doubt a plan of coöperation between the Federal Government and the states will be worked out which will permit the development and use of water and water power sites on the Federal domain as rapidly as is required by the public.

In examination of the state laws I find that there are eighteen states which are known as irrigation states. This designation comes from the fact that irrigation is a necessity to farming operations. The laws regarding water in those states have therefore of necessity been more highly developed than the laws of the other states. I have carefully gone over the laws of each of these states indexing them and have filed the same with the Commission under the card index system. In doing this I have presented one thousand six hundred and twenty-five cards.

This card index has been arranged in such form that anyone desiring to ascertain the law, or any particular feature of the water laws, of any particular state can find it by turning to the subject upon the card index.

The complete result of the investigation of the laws of the eighteen irrigation states has been set forth by me in a chart already filed with the Commission. This chart gives the names of the eighteen irrigation states, sets forth the particular phases of the laws in operation in each state and refers specifically to the statutes and constitutional provisions of that state. In presenting the result of my investigation of the laws of the states to the Commission I have done so in the form of five briefs.

Brief No. 1 is "A General Discussion of the Laws of the States Regarding Irrigation and Water Power." Brief No. 2 is "The Law of California Regarding Water and the Use of Water." Brief No. 3 is "The Doctrine of Riparian Rights and its Relation to Modern Conditions." Brief No. 4 is "The Law Regarding Water Power." Brief No. 5 is "The Control and Regulation of Water and the Use of Water."

Brief No. 1 contains a short history of irrigation, and describes the growth of the subject and the legislation enacted in the irrigation states. It sets forth what states have a system of state regulation of appropriation, what states have a method of adjudicating priorities, and what states have a system of administrative control over water rights.

Brief No. 2 deals with the laws of California regarding water and the use of water. It sets forth the Code sections upon the subject and gives a history of the growth of water rights and the growth of the doctrine of appropriation in the state. It cites and discusses the court decisions interpreting the Code sections. It also discusses the adoption of the doctrine of riparian rights by court decisions.

Brief No. 3 deals with the doctrine of riparian rights. It discusses the origin of the doctrine dating from civil law and the common law and sets forth its growth as a common law doctrine through three stages. The introduction of the doctrine of riparian rights is taken up and discussed, together with the successful efforts to limit its scope. Its nature and its effect upon the development of the West is discussed.

Brief No. 4 deals with the laws relating to water power. It shows that this is a new subject and is one of recent growth. The two states most prominent in dealing with the question are Wisconsin and New York. The Wisconsin law has been declared unconstitutional by the Supreme Court. In New York a law is now pending having been proposed by the Water Commission after years of study. This is a new field and California may perhaps have the distinction of leading the way.

Brief No. 5 entitled, "The Control and Regulation of Water and the Use of Water" deals with the question as to State and Federal control. The statutes and court decisions are discussed, and the conclusion reached that the state is the owner of the water and is the proper authority to give most efficient control. The existing laws dealing with the control of water and water power are discussed and recommendations made for their betterment.

The laws of foreign countries I have investigated, and have compiled the laws of the following countries: France, Italy, Spain, Egypt, Australia, and Canada. These have been card indexed. The provisions of the Australian laws are perhaps most instructive as they have been drafted and put into force by Elwood Mead, former irrigation investigator for the Federal Government, and the author of the Wyoming water laws.

The principal lesson to be gained from the irrigation countries of Europe is the necessity for a central control. Either the use of water is controlled through a strong central organization of those using it, or by the government. The government being the stronger power has exercised the most successful control.

The result of these investigations has led me to the conclusion that the Oregon water law is probably the best as yet devised for modern conditions. The most immediate and pressing need is for authority to be granted to some Commission for the purpose of determining existing rights subject to confirmation by the Courts. This is the Oregon plan and it worked out admirably.

Respectfully submitted.

(Signed) MILTON T. U'REN.

The card index, the chart and the briefs referred to above, are on file in the office of the Commission and are available for inspection.

PUBLICATION OF OTHER WATER DATA.

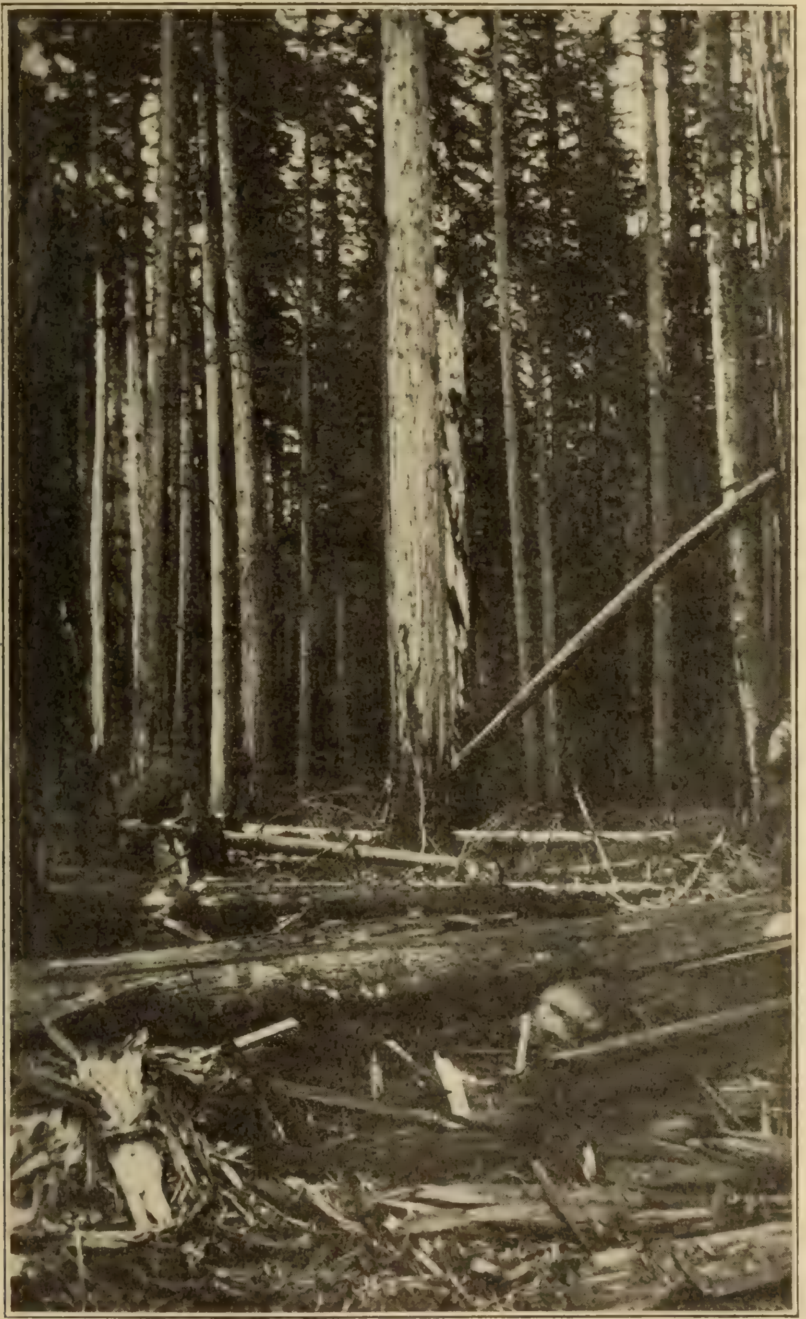
Besides the data embraced in this report, a great mass of other data has been gathered, by the U. S. Departments of Agriculture and Interior, under the coöperative agreements with the Water Commission and the Conservation Commission. These data are of great value, but their bulk is so great as to preclude their publication in this report, therefore they have been published by the United States Government and made available for immediate use. Some of these reports have already been published and are distributed, on application, free to all interested persons, by the U. S. Geological Survey, or by this office. The following is the list of those already published and ready for distribution:

295. Gazetteer of Surface Waters of California. Part 1. Sacramento River Basin.
296. Gazetteer of Surface Waters of California. Part 2. San Joaquin River Basin.
297. Gazetteer of Surface Waters of California. Part 3. Great Basin and Pacific Coast Streams.
298. Water Resources of California. Part 1. Stream Measurements in Sacramento River Basin.
299. Water Resources of California. Part 2. Stream Measurements in San Joaquin River Basin.
300. Water Resources of California. Part 3. Stream Measurements in Great Basin and Pacific Coast River Basins.

FORESTRY.

INSPECTION OF TIMBER AREAS.

During the summer of 1912 the Commission made an inspection of the coast timber areas of the northern part of the State, discussing with the owners of timber and the general public the needs for the protection of timber from fire.



Redwood timber in northern California, showing how the logged section has been fired.

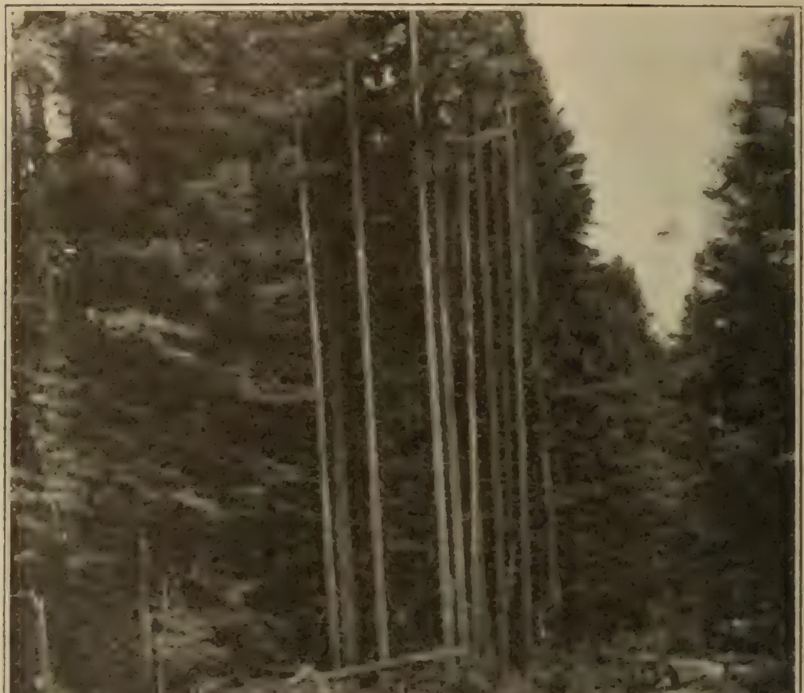


FIG 67.—Young second growth redwood of considerable size, being from 24 to 30 inches in diameter.

PUBLIC MEETINGS HELD.

The Commission held public meetings in San Francisco and Los Angeles, to which all persons interested in the subject under investigation were invited, in order to obtain opinions from men conversant with the practical and legal aspects of certain tentative measures for the conservation of the waters of the State.

Other public meetings were held by the Commission for the discussion of proposed changes in the laws relative to the protection of the timber and the streams of the State. Those interested in the industries proposed to be affected by any new measures and the public, were invited to discuss and criticize the proposed changes in the laws.

The object of these trips and meetings was to familiarize the Commission, to some extent at least, with the physical conditions pertaining to water power, developed and undeveloped; to observe the cut-over lands and timbered areas in the more heavily timbered portions of the State, and the adaptation of the soil to, and other conditions relative to reforestation.

Many of the persons who appeared before the Commission during these trips and meetings were financially interested in water power, many were lumbermen, and others were citizens generally interested in the proceedings of the Commission. The Commission's purpose in holding these hearings was to acquaint itself with the sentiment existing among all classes of citizens in the sections of the State that would be most affected by changes in the laws relating to water power, irrigation, and forestry. Full stenographic reports of these meetings are contained in the files of the Commission. The Commission believes that the work it has accomplished along these lines is of considerable value.

CESSION OF LANDS TO REDWOOD PARK.

Believing that the area of state-owned forests should be enlarged, and that certain lands owned by the United States should be conveyed to the State for such purposes, the Commission endorsed the act of Congress by which the Federal Government granted to this State additional tracts of land in the four townships adjoining the present area of the California Redwood Park.

NECESSITY FOR FIRE PROTECTION.

The prevention and suppression of forest fires, it is conceded by everyone, is the greatest problem that conservationists have to deal with. Upon its solution depends the success of all the other measures for forest protection. A forest fire may not only destroy virgin timber, but menaces the water supply, and fish and game, and makes difficult the successful application of reforestation methods to the areas burned over. The framing of a measure containing a system for the prevention of fires is the aim of all conservation bodies of the country. Nothing

Fire running through pine timber. This light method of burning is employed by some large timber holders.

can be accomplished in this direction without adequate appropriations to put into execution such a system. Fires in forests have always followed timber cutting, with the result that many thousand acres of land are now barren wastes covered with blackened stumps, worthless shrubs and chaparral. These worthless growths not only serve as a dangerous fire menace, but, in addition, choke out and kill the natural second growth that would develop into merchantable timber under more favorable conditions.

The Diamond Match Company's mill at Sterling City, Butte County.

STATE FORESTER'S REPORT ON FOREST FIRES.

The State Forester in his biennial report for 1910, says:

"There are about 30,000 square miles of forested land within the State. Timber on this area is estimated at three hundred billion feet, board measure, with a stumpage value of approximately $700,000,000 and a manufactured value of at least six times as much. Each year the lumber industry puts more than $20,000,000 into circulation. Here surely is an enormous asset which under improper treatment will rapidly disappear, but which properly handled will last for all time."

COÖPERATION WITH LANDOWNERS.

Further on in this report the Forester states:

"Since many lumbermen are indifferent to fire, or consider slash burning and systematic protection impracticable, it is clearly a duty of the State forest officers to coöperate with the private landowners, and inaugurate plans of fire protection on lumber tracts in representative regions. It is also their duty to enforce the state fire laws, and secure a change of sentiment by an educational campaign. For lumbermen have often been regarded by unthinking persons as enemies of the public. Their property is as a rule so situated that it really does make a difference to the public whether it is handled well or ill. And because conditions of markets and transportation have hitherto been such as to almost compel wasteful methods the lumberman has received the name of vandal, and has often found himself unable to obtain a fair hearing. The noisiest conservationists are apt to be those who know the least about the subject, and the profession and practice of forestry has always suffered most not from its opponents but from its hysterical friends. Such are always likely to advocate mischievous legislation to regulate the private handling of timber land. Reasonable legislation most progressive lumbermen have no objection to, but laws might easily be passed that would put them entirely out of business, and with sentiment so strongly against them as at present dare not openly protest. In order to enable lumbermen and timber owners to protect themselves from misrepresentation it was proposed to them to form an association under the auspices of this office. With more than half the timber of the State in private ownership, the attitude of the lumbermen toward forestry is without question of great importance. This office has endeavored to introduce forestry principles in the lumber woods by degrees with the view of working around later toward more and more conservative methods, but always to show the lumberman that the changes suggested are practical and in his own as well as the public interest. Our object is not to force the lumberman by legislation or otherwise to adopt better methods against his will, but to suggest only those changes as are reasonable and show him that those are a good investment. In consequence a number of large concerns are now making a practice of burning over in the fall or spring the area cut over the previous summer in order to reduce fire danger and leave the ground in the most favorable condition for reproduction. Thereafter the area is to be protected.

This is only a beginning, but it represents an enormous advance over the methods of previous years, and in itself if generally adopted will prevent cut-over land from falling into the ruinous state which formerly was almost certain to ensue. It has furthermore been accomplished without sacrificing friendly relations between the lumbermen and this office. If lumbermen had been forced to adopt such methods under penalty for refusal little good would have resulted. No doubt the future will show the need of regulating lumbering to some extent by law. There will always remain some shortsighted lumbermen who will be content to log under the old methods even after conditions have changed to such an extent that they are no longer either necessary or profitable. These will wish to skin their land and neglect it after it is once cut over, and in the interest both of the public and of the more progressive lumberman who wishes to adopt conservative methods public opinion will demand that they be legislated against; proper forestry laws, however, are by no means easy to frame; they must be drawn by experts if they are to work well. The lumberman must be consulted, not necessarily because he has an interest in such laws, but because his knowledge of the subject is the most exact obtainable. Yet with public sentiment the way it is the lumberman is practically barred from participation, especially if his opinion on proposed legislation runs counter to that of the ordinary citizen.

A campaign of education is therefore necessary to show the public (what they least expect) that the foremost practical conservationist is the progressive lumberman, and to organize and systematize this campaign was one of the objects of the proposed association. Other objects were to secure more effective protection from forest fires by coöperation to that end; to get the lumber industry as a whole in closer touch with this office; and to provide an opportunity for lumbermen to discuss with each other affairs relating to their business.

A preliminary meeting was held in October, 1909, in San Francisco, to discuss the question of organizing such an association. All parts of the State sent representatives. The need of an association was shown at once by the great variety of opinions expressed. It was decided, however, that an association should be formed with the title California Forest Protective Association, and a committee was appointed to draw up articles. There was so much delay, however, on the details of organization that the forest fire season came on with no general organization accomplished. One practical result of the meeting was the formation of a small coöperative forest fire association by four redwood companies whose holdings adjoin each other. A further attempt to form a general association will be made this winter."

STATE FORESTRY APPROPRIATIONS.

For the protection to the public of this valuable forest asset, the Legislature, in 1911, appropriated, for the fiscal years from July, 1911, to July, 1913, the following sums:

Salary of State Forester	$6,000 00
Salary of Assistant State Forester	3,200 00
Salary of Deputy State Forester	3,600 00
Printing for State Board of Forestry	2,500 00
Expenses of State Board of Forestry	15,000 00
	$30,300 00

No part of this sum has been, or can well be expended for fire protection. It is necessarily used largely for traveling expenses and the employment of additional assistance. Had the Legislature, at the last session, appropriated money for the protection of the water sheds of navigable streams, the Federal Government, under the provisions of the ''Weeks Law'' would have been authorized to place at the disposal of the State an amount equal to the amount so appropriated by the State, not in excess of $10,000.

NUMBER OF AND DAMAGE BY FOREST FIRES.

The State Forester, Mr. G. M. Homans, informs this Commission that, during the year 1909, there were 357,269 acres of forest land burned over in this State, ''destroying merchantable timber worth fully $100,000, and buildings to the amount of half a million dollars.'' In 1910, according to the State Forester, ''519,463 acres were burned over, and the direct damage amounted to $683,989.20.'' In 1911, ''282,284 acres were burned over. The damage was estimated to be $128,451.50. In 1912, up to November 1, 92,920 acres were burned over.''

The State Forester further shows in his report for June, 1912, that there were 738 forest fires in California during the year 1910. This resulted in a loss of over half a million dollars. These fires were caused in various ways, but most of them could have been prevented. The report continues: ''263 were of unknown origin, campers were responsible for 122, lightning 119, miscellaneous 76, incendiary 70, brush burning 54, railroads 17, and sawmills 17. In such a state as ours, forest protection alone can maintain the stream flow for irrigation, can prevent destructive forest fires and can provide for all time a timber supply sufficient to perpetuate our wood using industries. The situation is serious and there is only one remedy. That remedy is the introduction of practical forestry on a large scale, and, of course, that is impracticable unless an intelligent economical plan for fire control is operative. When the general public, timber owners, and the State are thoroughly alive to the necessity for fire protection then and only then will the chief stumbling block be removed.''

The destruction of timber by fire results in less work for the laborer, less taxes for the county, less shipping for rail and water transportation, and less income to the people of the State generally. It means that certain areas of land are rendered valueless for any purposes. It means danger to the streams, springs and other sources of water supply for all purposes.

OWNERSHIP OF FORESTS.

Of the standing timber in this State a very large percentage is now privately-owned. The total acreage of the privately-owned timber and the counties in which such timber is situated are as follows:

Name of county.	Acreage.
Mendocino	475,318
Trinity	233,840
Marin	11,597
Lake	10,320
Butte	89,737
Riverside	4,784
Yuba	19,400
Glenn	16,796
Tulare	33,358
Santa Cruz	19,956
San Luis Obispo	2,040
San Bernardino	10,940
Santa Barbara	160
San Diego	23,460
Kern	8,600
Ventura	803
Fresno	19,983
Tuolumne	131,378
Mariposa	35,073
Madera	23,176
Placer	156,949
Monterey	81,518
Nevada	60,101
Siskiyou	693,180
Tehama	126,358
Modoc	265,317
Lassen	244,434
Del Norte	109,600
Alpine	3,270
Mono	15,320
Amador	17,903
Sierra	134,176
Sonoma	162,474
San Benito	2,960
Plumas	224,717
Shasta	429,512
Calaveras	68,663
El Dorado	96,820
Humboldt	486,950
Total for State	4,555,941

The timber areas owned in these counties and the manner in which they are held is more definitely shown in the following tabulations:

Groups.	Approximate acreage of individual holders.	Number of holders.	Amount of timber in acres.	Per cent of total.
1	Over 500,000	2	1,536,238	33.70
2	Over 100,000	1	156,696	3.44
3	Over 50,000	6	399,809	8.78
4	Over 20,000	21	671,155	14.77
5	Over 15,000	18	304,757	6.68
6	Over 10,000	19	236,052	5.18
7	Over 5,000	41	279,654	6.12
8	Under 5,000	1,165	971,580	21.33
Totals		1,273	4,555,941	100.00

Further data, embracing the ownership of forest lands in this State and containing the names of the owners of and the amount of such land owned by each such owner, together with the counties in which such holdings are located, are attached hereto and marked Exhibit "A."

MAP OF TIMBER HOLDINGS.

A timber map has also been prepared by this Commission, showing the geographical location and acreage of the holdings set forth in the above referred to tabulation. This map is attached hereto and marked Exhibit "B." The full information relative to the holdings of the Pennsylvania Lumber Company, Michigan Trust Company, and Vance Lumber Company (see Group 4 of table), was not available at the time the timber map was prepared. For that reason their holdings are shown on the map as being among those owning less than 20,000 acres of timber land.

TAXATION OF FORESTS.

This question has been a vexed one for a long time. The owners of forests claim that the annual taxation of standing timber is an ever increasing incentive to the cutting of the timber and the consequent early destruction of the forests. The timber men point to the fact that timber is as much of a crop as grain; but that, unlike grain, which ripens annually and is cut, timber ripens only at intervals of many years and should not be cut before it is ripe, if an economic waste is to be prevented. The timber men also call attention to the fact that growing crops of grain and fruit trees and vines, before they reach the productive age, are, by constitutional provision, exempted from taxation, and that grain, fruit and the products of the vine are taxed only after they are harvested or picked. The timber men, therefore, claim that it is unfair to tax growing crops of trees; and that this natural resource ought not to be taxed until, having been harvested, it takes the form of cut lumber or timber. They assert with not a little plausibility, that such a tax system would result in a longer conservation of the forests.

On the other hand, though, it is claimed that, because of its annual increase in volume, and because of its constantly increasing annual value, on account of the constantly decreasing supply, a forest should be annually taxed in order that the public may annually receive its proper share of its annual taxation-product. It is also pointed out that, in many counties of this State, the area of privately-owned forests is so great that, were the standing timber not annually taxed, it would be impossible for such counties properly to carry on their county governments or to keep their public schools open.

The owners of forests, however, meet this argument by saying that there would be nothing unfair in annually assessing, at its value as bare land, and annually taxing as bare land the timbered areas of the State, just as agricultural and other lands are assessed and taxed, leaving the timber to be assessed and taxed, as grain crops are, when it is cut.

The Conservation Commission is free to confess that this subject-matter is one to which it has, as yet, been unable to give sufficient attention to enable it to formulate any recommendation to the Legislature.

STATE FORESTER'S DATA ON FOREST TAXATION.

Preliminary data have been gathered by State Forester Homans in coöperation with the Conservation Commission, relative to the taxation of forests, is attached hereto and marked Exhibit "F."

Accompanied by a self-explanatory letter of submittal, it consists of a table setting forth, by counties, the highest and lowest assessments of timber and cut-over lands; the tax rate by counties, and the "estimate of total amount of county tax derived from timber land." It also contains a discussion, by counties, of the assessed valuation and taxation of the various kinds of lands, the tax rates, the amount of timber in each county, etc.

PROPOSED FIRE BILL.

The Commission's proposed forest fire bill, if enacted into law, will, the Commission believes, greatly aid in the prevention and suppression of forest fires. The State should have a well organized fire patrol under the guidance of a practical firewarden, which is the most effective known manner of preventing and suppressing fires. Among other methods advocated is that of volunteer fire associations, but from the information at hand we are of the opinion that this plan works well only in theory. In actual practice it is found that the members hesitate to compel one another to clean up a dangerous fire-menace in the forest, or to take any definite action to prevent fires. The subordinates having the management of these voluntary associations likewise have some hesitancy about ordering the men from whom they draw their salaries to attend to nuisances and other matters that may have been neglected. This is especially true as to the member who subscribes most liberally.

A fire in brush and cut-over lands frequently does as much damage as a fire in standing timber. The fires in the brush in the southern part of the State have threatened the water sheds and diminished the water supply upon which the fruit grower is dependent for the irrigation of his orange groves and other crops in that section. With the expenditure of a comparatively small sum of money, during the dangerous seasons, in the maintenance of fire patrols, this danger and damage would be greatly lessened, if not eliminated.

Light burning methods used by some of the large timber holders.

States suffering from the results of large and disastrous fires, costing millions of dollars and, in some cases, many lives, are realizing that the prevention of fires is more effective and economical than fighting fires after they are started.

The great difficulty in devising a plan for an adequate and permanent system of forest fire prevention and suppression is in securing an appropriation sufficiently elastic to bear the burden of unusual and unexpected heavy demands upon it for the actual fighting of fires. It is a comparatively simple matter to make an estimate of what it will cost to employ the necessary number of rangers to patrol a forest, but if a number of large and disastrous fires should break out and the State should have to employ extra men to fight them, thereby incurring a large and unforeseen expense, it would tend to cripple the regular patrol force and render the whole system ineffectual. The timber owners, who receive the benefits, should be called upon for at least a part of the extra expense incurred in forest fire protection.

It would be impossible for the authorities to ascertain in every instance who is directly responsible for a fire. Therefore, the law makes it the duty of each land owner to extinguish a fire originating on his own land. (See Sec. 2, Chap. 699, Act May 1, 1911; and Sec. 18, Chap. 264, Laws 1905.)

It is a well settled and fundamental principle of the law that if one man performs an act that another is legally bound to perform, he is entitled to compensation for his services, with the proviso that the person bound by law to perform such act, must first receive proper notice. This is a wise and necessary provision in cases where such notice can be given without involving danger and risk in delay. In the case of a fire, however, which is dangerous to life and property, it is obvious that such notice would be ineffectual; for by the time the responsible person received notice the damage would be beyond repair and the fire beyond control.

Pine timber destroyed by fire.

CONSTITUTIONALITY OF BILL.

This Commission, after examining the laws of other states and the present California fire laws, believes that the provisions of the proposed measure are not only legal but are the most equitable and just for all persons affected thereby. Many objections have been made to the proposed bills. Some claim that such provisions will cause undue hardships; while others advance the opinion that certain provisions of the proposed bill are unconstitutional, being a violation of article IV, Section 25, subsections 24 and 33, which are as follows:

> "The legislature shall not pass local or special laws in any of the following enumerated cases, that is to say: Subsec. 24. Authorizing the creation, extension, or impairing of liens.
>
> Subsec. 33. In all other cases where a general law can be made applicable."

In this connection the Supreme Court of this State, in *Smith* vs. *McDermott* (93 Cal. 421; 29 Pac. 34), says: "A special law is one relating to a selected class, as well as a particular object."

Chief Justice Morrison in *Ex parte Burke,* 59 Cal. 6, 43 Am. Rep. 231, states what is a general and what a special law.

The court decided in *Abell* vs. *Clark* (84 Cal. 226, 24 Pac. 383, and other cited cases) that "An act applying uniformly upon the whole of any single class of individuals or objects, when the classification is founded upon some natural, intrinsic or constitutional distinction, is a general law."

"General laws are those which operate alike upon all persons to whom they apply." (89 Cal. 522.)

The proposed measure was framed to conform to the provisions of article XIX, section 1 of the Constitution, relative to the "police power" of the State.

In this connection the following citations are applicable:

> "Police regulations are not unconstitutional because they may incidentally operate to deprive individuals of their property without compensation, nor because they may create monopoly." (*In re Zhizhuzza,* 147 Cal. 328, 81 Pac. 955.)
>
> "An act giving the Horticultural Commission power to abate a nuisance caused by insect pests in orchards," etc., is authorized by this section. (Art. XIX, Sec. 1.) (*Los Angeles County* vs. *Spencer,* 126 Cal. 670, 77 Am. St. Rep. 217, 59 Pac. 202; *Riverside County* vs. *Butcher,* 133 Cal. 324, 65 Pac. 745.)

In this connection sections 3479 and 3480 of the Civil Code of California are pertinent. As to the power of the State to regulate the abatement of public nuisance, which question is largely involved in the proposed measure, we call attention to the following decisions: *County of Los Angeles* vs. *W. D. Spencer,* 126 Cal. 670, involving the right of the Horticultural Commission to destroy certain diseased trees and to make the owner pay for such destruction.

> "The police power deriving its existence from the rule that the safety of the people is the supreme law, justifies legislation upon matters pertaining to the public welfare, the public health and the public morals." (6 Cal. App. 237; *Ex parte Drexel,* 147 Cal. 766, 82 Pac. 429.)
>
> "It is settled law that all property is held subject to police power and that the provision of the constitution declaring that property shall not be taken without due process of law has no application in such cases." *Odd Fellows Cemetery Co.* vs. *San Francisco,* 140 Cal. 230.)

For acts of the legislature conferring powers similar to those contained in the proposed bill, the following citations will suffice:

Power to abate nuisance and make charge therefor a lien on property. (Section 3028, Pol. Code.)

The rat and squirrel nuisance law confers a similar power. (Sec. 2506*a*, General Laws.)

State Board of Horticultural Examiners authorized to destroy infected trees and charge cost to the land, etc. (Sec. 2322*a*, General Laws.)

OPINION OF SUPREME COURT OF MAINE.

As to whether the Legislature has the right to enact such a law, as is now proposed, in its exercise of the police power conferred upon it by the constitution, we believe that the question cannot be better answered than in the language contained in the opinion of the Supreme Court of the State of Maine. In March, 1908, the Legislature of that state submitted to the Court the question whether or not the Legislature could pass laws restricting, prohibiting, or regulating the cutting or destruction of trees on wild or uncultivated land by the owner thereof and whether such restricting, prohibition or regulating would be regarded as such a taking of private property for public use as would demand compensation for the owner. The opinion of the court is so clear and the principles laid down therein so far reaching in their effect, that it is necessary to print a copy thereof in full, viz.:

"The undersigned justices, in obedience to the requirements of the constitution, severally give the following as their advisory opinion upon the questions of law submitted to the justices of the supreme judicial court by the senate order of March 27, 1907:

"We find that the legislature has by the constitution 'full power to make and establish all reasonable laws and regulations for the defense and benefit of the people of this state, not repugnant to this constitution nor that of the United States': Constitution of Maine, Article IV, Part III, Section 1. It is for the legislature to determine from time to time the occasion and what laws and regulations are necessary or expedient for the defense and benefit of the people; and however inconvenienced, restricted or even damaged particular persons and corporations may be, such general laws and regulations are to be held valid unless there can be pointed out some provision in the state or United States constitution which clearly prohibits them. Those we understand to be universally accepted principles of constitutional law.

"As to the proposed laws and regulations named in the senate order, the only provision of the United States constitution having any possible application to such legislation by a state would seem to be that in XIV amendment. As to that provision, we think it sufficient to quote the language of the United States supreme court in *Barbier* versus *Connolly*, 113 United States 27, where, speaking of the fourteenth amendment, the court said: 'But neither the amendment, broad and comprehensive as it is, nor any other amendment was designed to interfere with the power of a state, sometimes termed its "police power," to prescribe regulations to promote the health, peace, morals, education and good order of its people, and to legislate so as to increase the industries of the state, develop its resources and add to its wealth and prosperity.' It may be added that the proposed laws and regulations would not discriminate between persons or corporations but only between things and situations, with a classification not merely arbitrary but based on real differences in the nature, situation and condition of things.

"We think the only provision in the state constitution that could be reasonably invoked against the proposed laws and regulations are the guaranteed right of 'acquiring, possessing and defending property' and the provision that 'private property shall not be taken for public uses without just compensation.' (Dec. of Rights, Sections 1 and 21.) If, however, the proposed legislation would not conflict with the latter provision, it evidently would not with the former; hence, only the latter one need be considered.

"The question of what constitutes a 'taking' of private property in the constitutional sense of the term has been much considered and variously decided. In the earlier cases and in the older states the provision has been construed strictly. In some states, in later cases, it has been construed more widely to include legislation formerly not considered within the provision. Still more recently, however, the tendency seems to go back to the principles enunciated in the earlier cases. In Massachusetts, one of the earliest states to adopt the constitutional provision, and in Maine, adopting the same provision in succession, the courts have uniformly considered that it was to be construed strictly as against the police power of the legislature.

Commonwealth versus *Tewkesbury*, 11 Met. 55, decided in 1846, was a case where the legislature prohibited the owners from removing 'any stones, gravel or sand' from their beaches in Chelsea as necessary for protection of Boston harbor. The court held that the statute did not operate to 'take' property within the meaning of the constitution, but was 'a just and legitimate exercise of the power of legislature to regulate and restrain such particular use of property as would be inconsistent with or injurious to the rights of the public.' *Commonwealth* versus *Alger*, 7 Cush. 53, decided in 1851, was a case where the defendant was prohibited by statute from erecting and maintaining a wharf on his own land (flats) beyond certain fixed lines. The court held that the defendant's title to the land (flats) was a fee simple, and that but for statute he would have had full right to erect and maintain wharfs upon any part where they would not obstruct navigation. It was not claimed that the proposed wharf would obstruct navigation but rather admitted that it would not. The court further held, however, that the statute was within the legislative power and not forbidden by any clause in the constitution. The question was considered at length in an opinion by Chief Justice Shaw, and the principle stated as follows:

" 'We think it a settled principle, growing out of the nature of well ordered civil society, that every holder of property, however absolute and unqualified may be his title, holds it under the implied liability that his use of it shall be so regulated that it shall not be injurious to the equal enjoyment of others having an equal right to the enjoyment of their property, nor injurious to the rights of the community. All property in this commonwealth, as well that in the interior as that bordering on tide waters, is derived directly or indirectly from the government and held subject to those general regulations which are necessary for the common good and general welfare. Rights of property, like all other social and conventional rights, are subject to such reasonable limitations in their enjoyment as shall prevent them from being injurious, and to such reasonable restraint and regulations established by law as the legislature, under the governing and controlling power vested in them by the constitution, may think necessary and expedient. This is very different from right of eminent domain,' " etc.

"In the case *Wadleigh* versus *Gilman*, 12 Maine, 403, decided in 1835, only fifteen years after the adoption of our constitution, there was upon the plaintiff's land a wooden building. A city ordinance was passed by legislative authority prohibiting the erection of wooden buildings within certain limits, which included the plaintiff's building. After the passage of the ordinance the plaintiff moved his building to another place within the same inhabited limits. The defendant, as city marshal, acting under the ordinance, entered upon the plaintiff's land, took the building down. The court held the ordinance valid and the defendant protected, and declared as follows (p. 405): 'Police regulations may forbid such a use and such modifications of private property as would prove injurious to the citizens generally. This is one of the benefits which men derive from associating in communities. It may sometimes occasion inconvenience to an individual, but he has compensation in participating in the general advantage. Laws of this character are unquestionably within the scope of the legislative power without impairing any constitutional provision. It does not appropriate private property to public uses, but merely regulates its enjoyment.' "

"In *Cushman* versus *Smith*, 34 Maine, 247, decided fifteen years later, in an elaborate opinion by Chief Justice Shepley, the court said of the constitutional provision in question (page 258) 'The design appears to have been simply to declare that private property shall not be changed to public property, nor transferred from the owners to others for public use without just compensation.' In *Jordan* versus *Woodward*, 40 Maine, 317, it was said by the court at page 324:

'Strictly speaking, private property can only be said to have been taken for public uses when it has been so appropriated that the public have certain and well defined rights to that use secured, as the right to use the public highway, the turnpike, the ferry, the railroad and the like.' The same doctrine was recognized in *Preston* versus *Drew*, 33 Maine, 558; *State* versus *Gurney*, 37 Maine, 156; *Boston & Maine Railroad Company* versus *County Commissioners*, 79 Maine, 386; and as late as 1905, in *State* versus *Robb*, 100 Maine, 180.

"There are two reasons of great weight for applying this strict construction of the constitutional provision to property in land: First, such property is not the result of productive labor, but is derived solely from the state itself, the original owner; second, the amount of land being incapable of increase, if the owners of large tracts can waste them at will without state restriction, the state and its people may be helplessly impoverished and one great purpose of government defeated.

"Regarding the question submitted, in the light of the doctrine above stated (being that of Maine and Massachusetts at least) we do not think the proposed legislation would operate to 'take' private property within the inhibition of the constitution. While it might restrict the owner of wild and uncultivated lands in his use of them, might delay his taking some of the product, might delay his anticipated profits, and even thereby might cause him some loss of profit, it would nevertheless leave him his lands, their product and increase, untouched, and without diminution of title, estate or quantity. He would still have large measure of control and large opportunity to realize values. He might suffer delay but not deprivation. While the use might be restricted it would not be appropriated or 'taken.'"

"The foregoing considerations lead us to the opinion at present that the proposed legislation for the purposes and with the limitations named in the senate order, would be within the legislative power and would not operate as a taking of private property for which compensation must be made."

Respectfully submitted.

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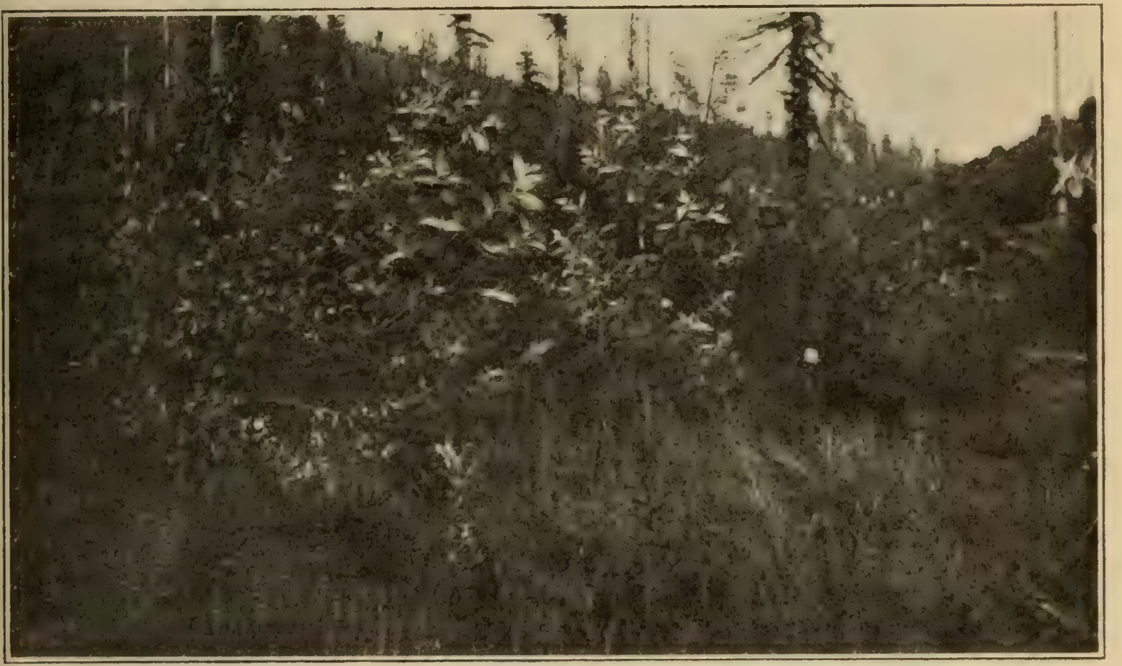
March 10, 1908.

This idea is also very well expressed in the case of *Hudson Water Co.* vs. *McCarter,* contained in 209 U. S. 349:

"The State as quasi-sovereign and representative of the interest of the public, has a standing in court to protect the atmosphere, the water, and the forests, within its territory, irrespective of the assent or dissent of the private owners immediately concerned." (*Kansas* vs. *Colorado*, 185 U. S. 125); (*Georgia* vs. *Tennessee Copper Co.*, 206 U. S. 230.)

REFORESTATION.

The subject of reforestation is one of the most important that confronts this country. Our timber supply will, at present rate of forest destruction, be exhausted in less than fifty years. Efforts to encourage tree planting and forestry have been made at different intervals and by different methods for the last twenty-five years. These efforts have not been attended with success, for the reason that the work has not been put in the control of the proper agency. Inducements have been offered to individuals to practice tree planting; but when the inducement is withdrawn, tree planting ceases.



Young eucalyptus trees that have been planted on cutover redwood land, as a protection to young second growth redwood.

Reforestation is the duty of the Federal and State governments, especially during its experimental period, because it is particularly for the benefit of future as well as present generations, and consequently does not, under present conditions, encourage the investment of private capital. Enterprises offering returns on the investment during the life time of the investor are naturally more attractive than those which are experimental or for realization in the far future. The Federal and State governments must, therefore, by their example, encourage the owner of large areas of cut-over land to reforest those lands.

Instead of being a source of extra taxation, forestry, when properly handled, will become the medium of greater income to the State. By proper reforestation, the forests will become self-sustaining and a source of profit to the State, as they have been in the past to the private owner. For every dollar the timber owner makes out of timber, the community and state generally make two. This is because of the creation of business and the circulation of money through the employment of labor in the woods, mills and other places necessary to conduct a lumber business. Maine, New York, Wisconsin, Minnesota and a great many Eastern States have purchased lands for reforestation purposes. They have paid as high as ten dollars an acre for lands, and have purchased many thousand acres.

Good, natural redwood second growth on the Ten-Mile River, Mendocino County.

The California Redwood Park, comprising 3,800 acres is the only state-owned forest land in California. No provision has been made for obtaining other land for State forests. In that respect we have failed to keep pace with certain Eastern States, and also with a number of the Western States.

We are not yet awake to the urgent need of growing more timber. Many are of the opinion that the need does not exist; but this class of people consists chiefly of those who are not acquainted with conservation problems. A few years ago, Wisconsin, Minnesota, Michigan and other states, thinking there was no danger of their timber supply failing them, made no provision for its preservation or for future forests. The legislatures of these states, and the Southern States as well, are now making laws for the preservation and protection of all their natural resources.

When New York had the forestry problems brought to its attention, lands suitable for reforestation purposes could have been purchased for one dollar and a half per acre. After realizing the need for protecting the forests from destruction and the waterways and streams from pollution and waste and even destruction, the Commission appointed to handle the matter was able to get some land for $3.45 per acre, but had to pay far more than that for other lands.

At present lands for reforestation purposes are at their minimum value in California. It would be to the best interests of the State to purchase cut-over lands at once, before values increase and the timber supply is still further diminished.

RECOMMENDATIONS OF NEW YORK GOVERNORS.

It was recommended to the legislature of New York by Governor Flower, in his message of 1893 in connection with a reorganization of the Forest Commission, (1) ''That forest tracts owned by individuals or private associations and used mainly for the purpose of reforestation should be secured as a part of the forest reserve and guarded against denudation by a contract with the State providing for exemption from taxation in consideration of forest protection and restrictions on the removal of timber, and (2) that revenue should be secured to the State by granting permission to fell trees above a certain diameter on State lands and to remove the timber.'' Legislation embodying these recommendations was enacted in 1893 and the results were stated by Governor Flower in his next annual message, from which the following extracts are quoted:

> "The new Forest Commission is now able to report that 225,000 acres of Adirondack land has been offered to the State upon the terms of the proposed contract and the standing spruce timber exceeding twelve inches in diameter has been sold on 17,468 acres of State lands from which it is expected that the first year's cutting will yield to the State a revenue of $52,400. * * * *
>
> "It thus appears that the state forest preserve has been increased by probably a million dollars' worth of lands without any direct appropriation of public money and that the first year of intelligent administration under the new law has insured to the State an annual revenue largely in excess of the entire cost of maintaining the Forestry Bureau. If from so small a portion of the Forest Preserve so considerable a revenue is received without injury to the forests we can reasonably look forward to the time when the Forest Preserve will not only be the great conservator of our water courses and the restorer of health, but will contribute a large part of the money required for the support of the state government."

Governor Morton of New York in his annual message of 1896 pointed out that "unless these lands are acquired within a reasonable time they can only be obtained at higher cost many years hence."

Governor Black of New York in his annual message of 1897, speaking of the loss to the state of timber through fires, floods and cutting, said: "Some time this deplorable condition must be rectified. Every year the loss to the State becomes greater, in all cases difficult and in some cases impossible of recovery. The land is steadily and rapidly increasing in value." * * * "A subject of such magnitude should not be postponed nor conducted with the halting method which is too apt to distinguish public enterprises in which large appropriations afford convenient resting places in which office holders may grow old." * * * "Every consideration of health, pleasure, economy and safety urge the speedy consideration of this subject."

NEW YORK APPROPRIATES MILLIONS.

Thereupon the legislature appropriated the sum of $1,000,000 for the acquisition of forest lands and created "The Forest Preserve Board" with authority to purchase tracts within the Adirondack Park. With this appropriation the Board acquired over 250,000 acres at an average cost of $3.74 per acre. In 1898 another appropriation was made of $500,000 and in the years 1899 and 1900, under the administration of Governor Roosevelt, $600,000 was appropriated for these purposes. In 1904 there was an appropriation of $250,000. In 1906, $400,000 more was appropriated and this was followed by an appropriation in 1907 of $500,000.

While the greater portion of the money appropriated, as above set forth, was for the purpose of acquiring title to definite tracts of land to be included in the "Adirondack Park" and in the "Catskill Park," the general purpose of acquiring cut-over lands for reforestation purposes was carried out along lines similar to those urged in this report. In that respect the quotations from the various reports and messages to the New York legislature are pertinent. What has been found to be advisable in New York and other Eastern States will be found advisable here. California has an advantage over the Eastern States, in that we can take warning from their experience and adopt precautionary measures before it is too late.

FORESTRY CONDITIONS IN OTHER STATES.

The table appended hereto sets forth the forestry conditions in certain other states—seventeen in number. The states selected, it will be noticed, include those Pacific Slope States in which there are any considerable bodies of timber, together with exemplar states in the extreme East, where, it is commonly supposed, the forests have practically disappeared, as well as examples from the Middle West and the South.

The table gives, for each state, the annual appropriations for forestry in 1911, and the amounts actually expended for fire protection; designates by whom the patrol system is maintained; sets forth the method by which money for fire protection purposes is obtained from the owners of forest lands; shows who pays the cost of fighting fires; gives the approximate acreage of forest lands in private ownership, the acreage of state timber lands, and the acreage of forest lands in National Forests.

For this table the Commission is indebted to Mr. T. E. Loynahan.

APPROPRIATIONS AND EXPENDITURES FOR FORESTRY PURPOSES.

State.	Annual appropriation.	Expended for fire protection.	Patrol systems maintained by—	Method of obtaining money from owners.	Cost of fighting fires paid by—	Acreage of private lands.	Acreage of state timber lands.	Acreage of national reserves.
California	$7,150 00		State and individuals and federal government and associations.	Individuals or association assessments.	Owners	8,500,000	2,000	11,000,000 annually forested; total acreage, 27,667,355.
Oregon	$30,000 00	$13,788 20 Week's law, $3,305.	State and associations and federal government and individuals.	Acreage assessments.	Owners and state.	15,000,000	None	16,000,000
Washington	$38,000 00	$20,151 14	State and associations, federal government and individuals.		State ⅓; county ⅓; owners.	5,500,000	1,500,000	11,684,360
Idaho	$15,000 00	Not given	State and associations, federal government and individuals.	Assessments	State and owners.		400,000	19,560,625
Utah	None				County	Slight		7,667,585
Minnesota	$75,000 00	State, $25,675.77; Week's law, $10,000.	State or railroads and federal government.		State		43,297 in 1909	1,204,750
Wisconsin	$35,000 and sale of lands; $60,000 for purchase lands.	Any part of appropriation; Week's law, $4,437 25.	State and federal government.		Towns	10,000 (about)	400,000	
Michigan	$10,000 00	$10,000 00	State		State and municipalities.	39,000 in 1909	39,000 in 1909	163,771

New York	$224,544 34	$75,000 00	State in fire towns and individuals.	Individual effort.	State ½; town ½; owners.	7,232,000 in 97 fire towns; includes state and private ownership.		
Pennsylvania	$321,250 00	$25,000 on private land; $5,000 for rangers; $35,000 for foresters; $35,000 for labor.	State	----	State	6,500,000	961,444	
Vermont	$11,000 00	$1,300 00 Week's law, $1,218.	State and owners and federal government.	Voluntary acreage assessment.	Town over 5% of grand list by state.	Total area forest and waste lands, 3,719,000; 800 acres forest land.		
Connecticut	$15,000 00	$1,500.00 for fire fighting. Week's law, $6.	State and federal government.	----	Town ½; county ¼; state ¼.	1,500,000		
New Hampshire	$18,000 00	$12,000 00 Week's law, $6,219.50.	State and association and federal government.	Association assessments on acreage, $10,000.	Town ½; state ½.	4,000,000 acres timber land in state.		
Massachusetts	$49,000 00	$25,000 00 Week's law, $2,500.	State and federal government.	----	Township	2,400,000		
Maine	$65,000 from tax on wild lands.	----	State	----	State and towns.	9,000,000 acres wild land.		
North Carolina	$3,000 00	----	----	----	Owners.			
South Carolina	----	----	----	----	----	5,532,000		

N. B.—The above expenditures made under the Week's law were collected for the year 1911. All other figures given are for the year 1912.

STATE EXPENDITURES FOR FIRE PROTECTION.

From this table it appears that, of California's appropriation, of $7,150, none is spent for fire protection; while Oregon spent, in 1911, $13,788.20, and Washington, $20,151.54. Michigan spent $10,000; New York, $75,000; Pennsylvania, $120,000; Massachusetts, $25,000.

For forestry purposes, New York appropriated $224,544.34; Pennsylvania, $321,250; Massachusetts, $49,000; Wisconsin $35,000, plus the amount derived from the sale of state lands; Maine, $34,000, derived from tax on wild lands; Washington, $38,000; Oregon, $30,000; Connecticut, $20,000; Idaho, $15,000; Vermont, $11,000; Michigan, $10,000; California, $7,150; North Carolina, $3,000.

RESULTS OF FIRE PATROL.

It is true that the damage done by forest fires in California has decreased very rapidly during the past three years. The damage done in 1910, 1911, and 1912, to timber, reproduction and forage in the National Forests, as estimated by the U. S. Forest Service, was, respectively, $332,586.20; $51,000.83; $8,138.81. And the damage to timber alone for these same years was $189,843.00; $7,673.00; $2.217.72. Is there, can there be, any stronger argument in favor of a comprehensive and effective forest fire preventative policy on the part of the State? For, be it remembered, the National Forests are carefully protected, at great expense, by the U. S. Forest Service. And a fire-protective service which reduced, in three years, the total forest fire loss from $332,586.20 to $8,138.81, and the loss in timber alone from $189,843 to $2,217.72 would seem to be well worth while.

FORESTS IN GERMANY.

The German Empire has a total area of 208,800 square miles of land of which area 54,687.5 square miles are timbered. There is much interesting information contained in Circular 140 of the U. S. Forest Service, Department of Agriculture, regarding forest conditions in Germany, portions of which are as follows:

"There is a little over ⅗ acre of forest for each citizen and, though 53 cubic feet of wood to the acre are provided in a year, wood imports have increasingly exceeded wood exports for over forty years, and 300,000,000 cubic feet, valued at $80,000,000 or over one sixth of the home consumption are now imported each year. * * * *

"Like other advanced European countries, Germany felt the pinch of wood shortage one hundred and fifty years ago and though this shortage was relieved by the use of coal, as a fuel, the warning was heeded and systematic State forestry was begun. After all the scare was not a false one, for even today. Germany is not independent as regards wood, since she has to import one sixth of all she uses. * * * *

"The method of management of German forests is regulated so that no more wood is cut than the forest produces. Under this management the growth of the forest and. consequently the amount cut has risen sharply. In 1830 the yield was 20 cubic feet per acre. In 1865, 24 cubic feet; in 1890, 52 cubic feet: and in 1904, 65 cubic feet. In other words Prussian forest management has multiplied the rate of production threefold in seventy-five years. And the quality of the product has improved with the quantity. Between 1830 and 1904 the percentage of saw timber rose from 19 to 54 per cent. Germany received as high as 60 per cent per acre net revenue from her forests. They have ceased to be an expense and are now self-sustaining and a source of considerable profit."

It is a striking fact, in this connection, that in the United States, at the present time, we are annually using about three times as much timber as our forests annually grow. This is in spite of the fact that for several years the market for lumber has been low and as a result logging operations have been curtailed instead of increased.

Logging operations in the redwoods.

UNUSED LANDS ECONOMIC WASTE.

Every acre of land which is not put to some useful purpose constitutes an economic waste. With few exceptions, all of the states have adopted a system for preserving and increasing their timber supply.

There are 1,544,868 acres of cut-over land in this State usually assessed as grazing land, but they yield little or no revenue for the owner. It is believed that, under proper laws encouraging reforestation, there will be thousands of acres of cut-over land donated to the State for reforestation purposes.

The larger the area owned by the State, the cheaper it will be to handle it. The cost per acre for reforestation will be materially lower if the State maintains its own nurseries. In addition to the lower cost, the quality of the trees will be of a higher grade, as care can be taken that diseased trees are not used.

Some of the states have passed laws reducing or abolishing taxes on cut-over lands, with the proviso that the owner of such lands reforest them. The average individual does not possess enough practical knowledge of forestry to enable him intelligently to select and set out trees, so that his attempts are likely to result in a poor and diseased growth.

Logged over redwood land in Mendocino County, showing abundant, natural second growth, which if properly handled would make a fine forest.

Massachusetts has a law, passed in 1908, providing for reforestation. In a report of Mr. R. S. Langdell, Assistant Forester of Massachusetts, for 1910, entitled "Reforestation in Massachusetts," it is stated,

> "Under an act to provide for the purchase of forest land and for reforestation passed by the legislature of 1908, provision is made that private owners may turn tracts of land suitable for reforestation purposes over to the State, to be planted and handled under practical forestry management, and such owners reserving the right to redeem the land at any time within ten years, for the actual amount expended.
>
> "During the year 1909 about 1000 acres were deeded to the State and placed under the supervision of expert foresters from the State Forester's Office, the work being done by local gangs, picked up in the various towns where the lots were situated. The cost of planting, including price of trees and labor of setting, ranged from $5.00 to $10.00 per acre, according to land and labor conditions. A large proportion of the trees used in the work were purchased from outside nurserymen; but in the future, by raising the stock in State nurseries, the above cost of planting should be reduced."

As an example of individual reforestation, attention is directed to the United States Timber Culture Act, repealed some years ago. This act provided that when a claimant to land applied for in conformity with the provisions thereof could show that he had planted trees on each legal subdivision of the tract claimed, he could ''prove up'' and get a patent. No governmental supervision was had nor was there any direction or condition as to what class of trees should be planted nor what was to be done with them after the planting. In consequence of this policy many of the Western prairies are dotted with the skeletons of stunted aspens, cottonwood, greasewood and other like varieties of so-called ''timber.''

In an effort to promote tree planting in California, the Legislature some years ago passed a law (subsection 36, sec. 4041, Pol. Code) providing for the payment by counties to individuals of a sum not to exceed one dollar for each ornamental or shade tree planted along roads. With reference to this act, letters were written to all county auditors of the State asking what had been accomplished under the provisions thereof.

Out of a number of replies received only one—that from the Auditor of Colusa County—stated that there had been any work done under the act and that the last money paid therefor was on August 3, 1910.

Mr. S. J. Flintham, the forester of Los Angeles County, states that no money has been spent under the provisions of said act, but that the county has taken advantage of the act creating the county board of forestry and has thus accomplished the same end in a more effective manner. He goes on to say:

> "The bounty act, it appears to us, would be likely to result in poorly advised planting and lack of uniformity, at very considerable expenditure of county funds—while under our act all roadside planting is under one authority, and opportunity is given to regulate to secure uniformity, proper selection of species and best results. Furthermore, funds are expended not as a bounty to third parties, but for financing planting operations conducted under the directions of the Board itself. With an appropriation of $25,000 this past year, 1911-12 roadside planting has been completed on stretches aggregating 35 miles of the most important roads of the county. It is expected that a further, and we hope, a larger appropriation, will be made available to extend this work during the coming season."

AGRICULTURAL LAND IN NATIONAL FORESTS.

''Conservation of natural resources'' is sometimes briefly defined as ''the maximum use of them with only a minimum of waste.'' This Commission has endeavored to study all of California's natural resources with this definition in mind. It has studied, as well as it could, not only the natural resources belonging to the public, but also privately-owned natural resources, including lands in the National Forest within the boundaries of the State.

The National Forests contain scattered tracts of lands suitable for agricultural purposes. When these lands are ''reserved'' or ''withdrawn'' from the use to which they are best fitted, viz., agriculture, an economic waste results. And this Commission, in common with all other citizens, would like to see such lands restored to entry. Such restorations would be of benefit to the State, to the counties in which they are situated, and to the individuals who acquire possession of them.

But it must not be assumed that all unforested, or even all unforested and rich lands in the National Forests, are capable of producing sufficient agricultural products to put them in the class of "agricultural lands." For conditions of climate, elevation, topography and rainfall or other water supply may be such as to preclude the agricultural use of lands which, under other such conditions, would be very productive.

It is the policy of the U. S. Forest Service to restore to public entry, as fast as may be, all really agricultural lands which may be so restored without injury to the Reserves themselves. The following quotation from the "Rules Governing the General Classification of National Forest Lands and the Segregation of Areas Chiefly Valuable for Agriculture, and Instructions Thereunder," is self-explanatory of this policy of the Forest Service: "A complete and final classification of all lands within National Forests as to their comparative values for forest and agricultural use, and the segregation and listing, under the act of June 11, 1906, of all areas chiefly valuable for agriculture, is an end to be sought for the following reasons: 1. To facilitate the carrying out of the established policy of the Forest Service to open up for settlement and development all land within the National Forests which is chiefly valuable for agriculture. Under this policy the term 'agricultural land' as applied to land within the boundaries of a National Forest is defined as meaning land whose conditions of climate, typography, and soil-productivity positively adapt it to permanent cultivation and the production annually of farm crops in quantities sufficient to justify a reasonable man in undertaking its development."

With this policy of the Forest Service, the Conservation Commission believes, no reasonable man ought to disagree. The National Forests are of the utmost importance to this State. They preserve, on the watersheds of the headwaters of many of our streams, forest cover which serves to regulate the flow in these streams; they conserve great areas of forest lands, which, were it not for the existence of the National Forests, would fall into private ownership and be, first, monopolized and then finally destroyed. Nothing, therefore, should be contemplated or done that will interfere with the integrity and permanence of the National Forests. And under the present policy of the United States Forest Service the segregation and opening to entry, settlement and development of agricultural lands will, no doubt, go on with a sufficient celerity to satisfy the reasonable desires of all men.

WITHDRAWAL OF AGRICULTURAL LAND BURDEN TO COUNTIES.

The Federal statutes now provide that 25 per cent of the moneys realized from the sale of timber in National Forests shall be paid into the treasuries of the counties in which the sold timber is located. This Commission believes that this percentage is not sufficient to reimburse anywhere nearly the counties for the withdrawal from county taxation of the National Forests. The Commission, therefore, strongly recommends that the State of California, by appropriate legislative action, and through its Senators and Representatives in Congress, advocate that 50 per cent instead of 25 per cent, of the moneys received by the United States Forest Service from the sale of timber in the National Forests shall be paid into the treasuries of the counties in which such timber is located.

Ten per cent of gross receipts has been added to the regular 25 per cent and is being used in coöperation with the State and County governments in the construction of roads and trails on the National Forests.

SCHOOL LANDS INVESTIGATION AND DATA.

The Conservation Commission has also collected data relative to school lands. Co-operating with the State Surveyor General, examination of the records in the State Land Office was made to determine what lands, if any, were still owned by the State. The Commission also employed the services of a corps of men, in Washington, D. C., familiar with this class of work to gather data of a similar character at the U. S. General Land Office.

SCHOOL LAND.

With a view to determining the extent, location, and area of school lands, this Commission addressed a communication to Hon. W. S. Kingsbury, the State Surveyor General, and propounded the following questions:

"Will you kindly furnish this office with the following information:

Total acreage school land still owned by State?

Total acreage school land sold?

Total acreage school land granted to State?

Approximate acreage school land within unsurveyed townships not yet listed to State?

Total acreage still owned by State under swamp land grant?

Total acreage owned by State under other grants? Give each grant separately.

Has any examination been made to ascertain the character and value of the state lands?

If so, please state the extent of such work and where such information may be obtained.

Is school land first appraised before it is sold?

Upon what terms is it sold?

At what price and under what conditions are the other state lands sold?

Are these lands first appraised?

Can the State lawfully refuse to sell any of its lands, or must it sell when proper application is made?

As much of this information as you can supply before September 15th, the date of our next meeting, will be greatly appreciated, since the Commission would like to consider these questions at that time."

Mr. Kingsbury, in reply to our inquiry stated that:

"The acreage of school land granted to the State, acreage sold, and acreage still owned by the State, has never been tabulated. * * * *

The State has sold all swamp land with the possible exception of a very few isolated tracts.

The only lands granted to the State which remain unsold are the school lands.

No examination has been made to ascertain the character and value of the state lands.

No lands are appraised before they are sold.

The school lands must be sold, under the present law, at $2.50 per acre when proper application is made. * * * *

If there is any timber on the land, it goes with the land without additional charge. There is, at present, no known timber land."

Mr. Kingsbury in his communication also stated that until certain matters are adjusted "it will be impossible to make even the roughest kind of an estimate of the amount of land owned by the State."

Owing to the condition of the records of our State Land Office, and the methods which, prevailing long before Mr. Kingsbury became

Surveyor General, undoubtedly caused this confusion and uncertainty, the Commission determined to ascertain, if possible, what lands, if any, the State still owned. And, in order that, if valuable land was discovered, it would not be practically given away for the nominal sum of $2.50 per acre, the Commission recommended to the last extra session of the Legislature the withdrawal from sale of state lands until September, 1913; and the recommendation of the Commission became a law.

As a result of the investigations made under the direction of this Commission, greatly aided by Mr. Kingsbury, of the official records of the Federal Government, the Commission has been able to approximate the total amounts of land still owned by or due the State, and has prepared a map showing the geographical locations, and as near as possible, the area of such school lands. The map referred to is numbered Exhibit "C" and is attached to this report. A tabulation giving the status of each section 16 and 36, in which the State has an apparent claim to all or a portion thereof, is shown upon the following pages. The only purpose of this map and the tabulation is to give a general idea of the geographical location and area of the state lands.

The tabulation showing the location and area of each section in which the State may have an interest, and also whether or not the land is within or outside a National Forest Reserve, is appended hereto and marked Exhibit "D."

We do not desire to assert that this tabulation or description of the school lands appended hereto is entirely free from error, because, in a few instances, since the preparation of the table, we have found certain discrepancies. This is due, however, to the condition of the old records in the office of the State Surveyor General. But, as stated before, the purpose of this investigation and inventory was not to make an absolutely exact check, but merely to determine approximately the area, if any, of state lands still in the State's possession. And, in view of the tabulation made, we are confident that the State still owns approximately one million acres of school lands.

LETTER OF CERTIFICATION.

The following letter certifying to the apparent and probable correctness of the data gathered at Washington in regard to the California school lands is self-explanatory:

(COPY)

UNITED STATES DEPARTMENT OF THE INTERIOR.
GENERAL LAND OFFICE.
WASHINGTON, D. C., April 22, 1912.

State Conservation Commission,
State of California,
Mills Building, San Francisco, Cal.

SIRS: In furtherance of the adjustment of the California School grant, representatives of the State, acting with officials of this office, have examined the records of the office pertaining to said grant, and have prepared a tabulation, in triplicate, therefrom, showing the present status of the grant, pending unapproved selections being excepted. The records were carefully examined and checked, and the data obtained and tabulated is believed to show correctly the status of the grant. It must not be considered, however, that such statements, while deemed to be accurate, are to taken as conclusive and as forbidding subsequent ascertainment and correction of errors.

Very respectfully,

(Signed) S. V. Proudfit,
Assistant Commissioner.

CONDITION OF SCHOOL LANDS.

The compilation showing the status of the California school land grant as secured from the records of the State and Federal departments shows:

	Acres.
Sold by State	2,833,205.33
Selections made prior to March 1, 1877	587,778.22
Selections made subsequent to March 1, 1877	576,867.06
Excess selections subsequent to March 1, 1877	3,228.94
Land in place claimed by the United States, act March 1, 1877	14,590.43
Reconveyed to United States	12,000.00
Total disposals by the State of California	4,027,669.98
Area due the State of California under school land grant (surveyed and estimated)	5,252,143.19
Area due (353 townships unsurveyed and unestimated), approximately	447,360.00
Total area due the State of California	5,699,503.19
Area due the State of California	5,699,503.19
Total area disposed of by State	4,027,669.98
Balance due the State	1,661,833.21
Pending unapproved selections	486,768.55
Total area undisposed of	1,175,064.66
Excess selections, prior to March 1, 1877	17,945.20
Payment claimed by the United States for excess selections prior to and under the provisions of the act of March 1, 1877, at the rate of one dollar and twenty-five cents per acre	$22,431 50

DOUBLE SALE OF LANDS BY STATE.

The lack of system formerly existing in the State Surveyor General's office has, in not a few instances, resulted in the State selling, to citizens entitled to purchase, lands which, through prior transactions, the State had already disposed of to other applicants. This may result in much litigation as well as in hardship to bona fide purchasers, who, in some instances, may even be deprived of their homes and the improvements made upon these lands which they have made in good faith upon the assumption that the State was not selling then an imperfect and defective title. Under the present law all that these settlers may be able to recover from the State is the amount of the purchase price of the land, but nothing for money or time expended, in good faith, upon the land. And while it must be admitted that this amount will not fully satisfy the injury and losses, still it is very difficult for this Commission to suggest a proper remedy and adequate relief.

EXAMINATION AND APPRAISEMENT OF STATE LANDS.

We do not submit a bill providing for the disposal of our remaining school lands, for the reason that, until an examination and appraisement has been made of these lands, it would be impossible to submit a proper measure having to do with the disposition of lands, the character and value of which are entirely unknown. For that reason we believe that for the next two years these lands should be withheld from sale; that they be examined and determination be made as to what portions thereof should be sold and what portions retained by the State for transfer to the United States in lieu of lands in a compact body which the State might be able to exchange therefor to be used as a State Forest Reserve.

MINERAL LANDS.

The subject of mining, embracing dredging, oil, placer and quartz locations, presents many complications. In considering the abuses existing in the present mining laws and what is required to rectify such abuses, it is necessary that the opinion of practical miners and mineral experts should be secured. And in furtherance of the Commission's policy first to hear all persons interested, recommendations will be deferred until further hearing and more definite investigations shall have been made. But it should not be forgotten that the Federal Government, rather than the States, has power in such matters.

It has been arranged by this Commission to coöperate with Mr. W. H. Storms, the State Mineralogist, in the preparation of an outline for remedial mining legislation. Meetings with bodies of men representing oil and other mining interests, should be held in the near future, and at these meetings efforts should be made to frame a law which will develop rather than retard the growth of this great industry. An attempt should also be made to discuss all the various methods of the opening and developing of mineral lands. Steps ought also to be taken to protect oil-bearing sands from being flooded with water; to prevent unnecessary waste of natural gas; to provide for the filing of location notice of mineral in the United States Land Office within the district in which such mining location may be situated; to prevent the speculative location of mining claims, and generally to treat upon all matters pertaining to this subject in which the State has any power or influence.

A supplementary report on this project will be submitted for your consideration as soon as these hearings have been held and further investigations made.

GOLD DREDGING.

At the request of the Commission, Dr. Charles B. Lipman, of the U. S. Agricultural Department Experiment Station at Berkeley, very kindly made an examination of the lands around Oroville, California, affected by the gold dredging. Dr. Lipman's report, annexed hereto and marked Exhibit "E" contains the result of his examination into the subject.

Because of a press of other and apparently more important duties, the Conservation Commission has been unable to organize and prosecute a sufficiently thorough and complete investigation of the relation which gold dredging bears to the public welfare to enable it to formulate and regulatory recommendations therefor. The Commissioners have, however, visited the scenes of the dredging operations, and in common with all other persons not directly interested in them, have been unfavorably impressed with the destruction of land produced by these operations.

The Commission has no hesitancy in saying that the State should not ermit, if it can prevent it, the destruction in any manner, for practi-ally all time, of large areas of agricultural land. It may be true that uch destruction will produce more immediate wealth than the continued se, for even centuries, of such lands. But the wealth produced by redging is not and cannot be so valuable to this State as the even far ess wealth annually produced by any agricultural lands ruined by redging or any other operations.

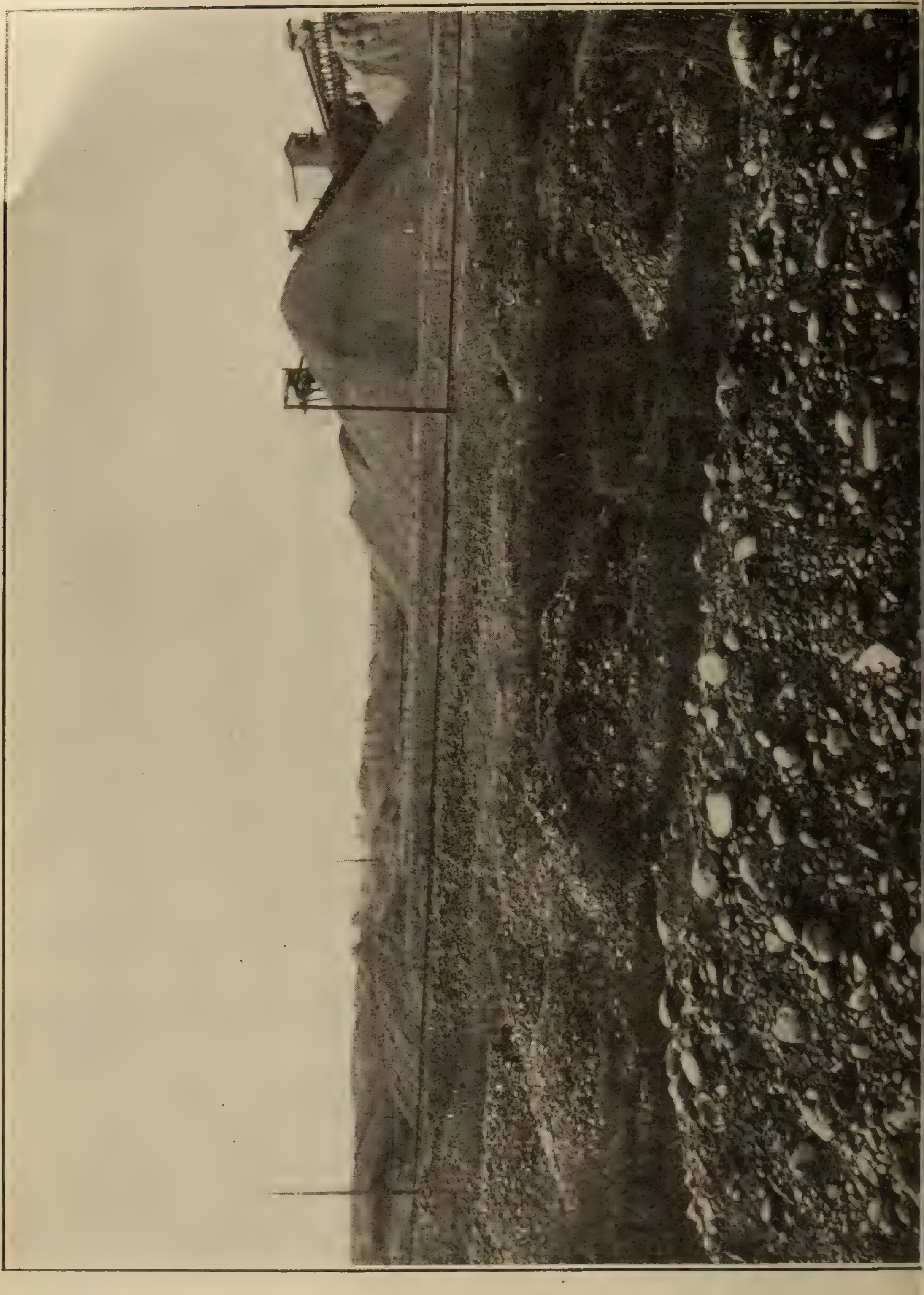
The dredging operations, it is true, give employment to many men—nany more than could be given employment at any one time on he same land if it were retained for agricultural purposes. But gold redging is ephemeral—it can last but a few years—and when it is inished, the land, being comparatively useless, can give but little or no mployment for a very long time. Agricultural land, on the other and, gives employment practically forever and furnishes not only vealth but the necessities of life to others than those who themselves se it. It is also true that not all the dredgable land is agricultural n character; but a large acreage of it is.

According to Dr. Lipman's report, there are about 20,000 acres of roved dredging ground already in the possession of the dredging ompanies on the Feather and Yuba rivers; and the companies own omething over 12,000 other acres of, as yet, unproved lands.

The question at issue is whether it is of more benefit to the present and future of this State to permit any considerable area of its territory to be ruined and become an eyesore in order that, for a few years, even the enormous sum of over $7,250,000—the output from dredging operations for 1909—shall annually be added to the wealth, not of this State but of this nation. For, although it is true that a great portion of the output of the dredging operations is paid out in this State for labor, supplies and material, it must not be forgotten that the actual profits go largely to other states, and that, when the dredging operations shall have ceased, the production of wealth from the dredged lands will cease. If it shall be deemed advisable to permit 1,000 acres to be ruined, why not 100,000 acres—why not the greater part, the whole, of the State?

HYDRAULIC MINING REGULATED.

The operation of hydraulic mining in this State was regulated because, among other bad results, it was causing the destruction of large areas of agricultural land. The regulation consisted in compelling those who desired to mine by hydraulic power to keep their slickens from falling into and choking the rivers. The result of the hydraulic mining was the annual production of a far greater amount of gold than can be hoped for as the result of dredging operations. The hydraulic mining operations were, nevertheless, regulated, and the regulation was of such a nature as to stop practically all hydraulic mining operations. The consensus of opinion was that, even if the annual production of gold from the hydraulic mines was far greater than the value of the annual products from the agricultural lands the slickens were destroying, it was better public policy to



suspend the hydraulic mining than to permit the destruction of agricultural lands.

DREDGING DESTROYS LAND.

The dredging operations as now conducted turn the land upside down, putting the top soil at the bottom and the bottom cobbles on top of the spoil heaps. The result is, of course, that the productivity of the land is practically destroyed. From observation of the dredging operations, the Conservation Commission is of the opinion that these operations may be conducted in such a way that the material may be run through the dredges and the spoil deposited in such a manner that the soil may be on top and the cobbles at the bottom. It is true that this method would be more expensive than the dredging method now pursued—in many instances it would be prohibitively expensive. But, in the case of the hydraulic mining operations, the question of the expense of methods providing for the preservation of agricultural lands was not considered—the safety sought for being the only consideration involved.

THE ÆSTHETICS INVOLVED.

This question is also one to be considered, in conjunction with that of economics, from the æsthetical standpoint. Is it of sufficient profit to this State to permit the spoliation of large areas of land and the turning of them into hills of unproductive scenery-marring cobblestones? True, even the by-product of cobblestones may be, is, being crushed and used for road material. But are even the profits to the dredges and needed road material to some of the people of this State sufficient to outweigh the damages done in other directions to the present and future generations of California?

REPORT FROM AUSTRALIA.

From "Gold Dredging in California," Bulletin No. 57, issued by the California State Mining Bureau in 1910, page 246 under the heading "Reclaiming Dredged Land," the following quotation is in point:

> The following extracts from the papers and reports of the Minister of Mines, New Zealand, John Hayes, inspecting engineer, (page 16 c 3) 'There has been an outcry in some quarters about valuable land being destroyed for agricultural purposes by gold dredging operations. This has undoubtedly been the case in a few instances, but in others, where swampy marsh land has been dredged the effect has been to drain and sweeten it and it is now growing sweet grass and clover where rank sour grass and rushes grew before. At the same time it cannot be claimed that this land has been left in anything like as good a condition as it might have been had advance stripping been practiced, and the soil and subsoil, etc., deposited on the gravel tailing instead of them all being mixed up as at present.' "

No. 2 District A. R. Campbell, inspector:

> "An Omeo dredge is making a good show in regard to resoiling, this being mainly attributable to the depth and nature of soil dealt with. This soil is stripped in advance and sluiced down the box with the full body of water, but owing to the tenacity of the material, a fair quantity of it stays on the tailing, the deposit being in some places four feet deep."

The Commission would, however, suggest that it is entirely within the police power of the State to regulate these dredging operations. It may even be possible to regulate them under the law of nuisances without any further legislative action.

OIL.

The production of natural oil in California was, last year, 84,648,157 barrels, valued at $40,552,088. It, therefore, ranked first in oil production. Oil, being by decision of the courts a mineral, it becomes subject to exploitation only under the provisions of the federal laws. It appears, moreover, that much of the most valuable oil lands in this State were acquired under congressional land grants by the Southern Pacific. But, in express and unmistakable terms, whatever minerals might be found on, in or under these lands were excluded from the deed of gift. The Southern Pacific has, however, proceeded to extract from these lands natural oil and put it to its own use. It has also sold large tracts of these lands to others who have proceeded to take oil therefrom. Such acts on the part of the corporations are apparently in defiance of the law; and those taking oil from such lands, except under the federal laws governing the right to take minerals from public lands, are trespassers on the public domain. The State cannot, of course, take any action to prohibit such acts; that power rests only with the Federal Government, which has brought suit to recover the mineral lands thus acquired by the Southern Pacific.

Complaint is made, by certain of the producers of oil in this State that, because of the acts of certain other producers, water overlying oil sands is permitted to enter and injure those sands and to interfere with the extraction of oil from them. There is already on the statute books of this State a law prohibiting this injury. It is claimed, however, that this law is inoperative. The Conservation Commission recommends that the present law be amended so as to make it operative.

NATURAL GAS.

There are enormous quantities of this very valuable natural resource being unnecessarily wasted in this State. Two years ago, the Legislature passed an act prohibiting the unnecessary wasting of natural gas. But, in spite of the fact that the Conservation Commission called the attention of the district attorneys in the oil-bearing counties to this law, nothing, so far as this Commission has been able to ascertain, has been done to stop this unnecessary wasting of this very valuable natural resource. The value of the gas wasted in 1910 was, according to the statement of Mr. L. M. Aubury, then State Mineralogist, $2,000,000.

The Conservation Commission is strongly of the opinion that the unnecessary wasting of natural gas, especially through abandoned wells, should not be permitted. It is true that, to stop this waste, would require the expenditure of some, but not, in any one case, an excessively large sum of money. And, the Commission believes, no person should be permitted to search for or extract our natural resource, oil, in the hope of or to his own profit and, by reason of that hope or its realization, so to conduct his operations as to waste unnecessarily another valuable natural resource, towit, natural gas, even if the prevention of that waste does cost the searcher or the profit-maker some money. The prevention of that waste should be one of the recognized possible costs of all boring of wells, productive or non-productive, in the oil fields of California.

FISH AND GAME.

Fish and game are natural resources of great value, from the standpoint of food supply, and healthful amusement. It is the duty of the State to conserve and preserve these natural resources in every possible way for the benefit of all the people. Proper fish and game laws, strictly enforced, and fish hatcheries and game farms are necessary for this conservation and preservation.

LAKE TAHOE.

Approximately three fourths of the superficial area of Tahoe lie in California—the remaining fourth in Nevada. Its outlet, the Truckee River, begins in California, but soon enters Nevada. On the Truckee River in California are many plants using water power; and there is room for other similar California plants on the river. By means of a tunnel the waters of the lake may be put to power and irrigation use for and in the Sacramento Valley. This lake is also one of California's most beautiful and celebrated spots and places of resort; and, from every standpoint, is one of our most valuable natural resources.

TAHOE SHOULD BE CONSERVED.

California, therefore, should see to it that this lake is conserved for California, at least in the proportion of its water supply that lies within this State. The Conservation Commission is, therefore, very greatly interested in the attempts that have been made and are still being made by the United States Reclamation Service to secure for the Fallon Reclamation Project, in Nevada, a larger portion of the waters of the lake than, naturally and subject to California rights, discharges from it through its natural outlet, the Truckee River.

PLANS OF RECLAMATION SERVICE.

Only a short time ago, the U. S. Reclamation Service endeavored to secure the participancy of the United States Government in a contract with a power corporation, under which contract, by means of a tunnel tapping the lake in Nevada, water was to be taken from the lake, used for power purposes in Nevada and for irrigation purposes on the Fallon project, also in Nevada. Believing that such an arrangement, attempted without consulting the State of California, would be a distinct detriment to the people of this State, the matter was brought to the attention of Governor Johnson. The Governor protested vigorously to the President of the United States, and the proposed contract was abandoned. The Reclamation Service it appears, has, however, not ceased its efforts to take and use the waters of the lake on its Nevada reclamation project. It now proposes, it appears, to enter into some sort of an arrangement or contract with the parties claiming ownership of and regulatory powers over the dam at the source of the Truckee River, whereby the amount of water leaving the lake may be regulated for the benefit of the Fallon Project.

THE DAM AT THE SOURCE OF THE TRUCKEE.

The dam at the source of the Truckee was built by private parties under authority of an act of the California Legislature, passed in 1870. This act limited the right of occupancy to twenty years from the date of the proof of the expenditure of $25,000 on construction work. This proof was made in 1875. The right, therefore, expired in 1895. But the State did nothing to take from the persons claiming ownership of the dam the right to maintain and operate it. It appeared, therefore, as if those controlling and operating it might secure, by prescription, perpetual rights to maintain and operate this dam, unless suit were brought to determine the right. The matter was brought to the attention of Attorney General Webb by the California Water Commission and this Conservation Commission. But before he could take action, suit was brought by certain interested private parties in California to have declared terminated the right of those claiming possessory title to the dam. In this suit the Attorney General, representing the State, has intervened.

STATE SHOULD SUE TO HAVE WATERS PARTITIONED.

In the opinion of the Conservation Commission—which is shared by the State Water Commission—the waters of Lake Tahoe are too valuable an asset, from every point of view, to permit them to be diverted, without established limit, into any other state. For, if they be so diverted, it will be difficult, if not impossible, for California to recover her proper share of them. The Conservation Commission, therefore, recommends, as strongly as it can, that this State bring suit, before the Supreme Court of the United States, against the State of Nevada to have the waters of Lake Tahoe equitably apportioned to and between the two states, so that, by prescription or otherwise, the people of California may not be deprived of their present just, legal, equitable, and proper share in the waters of the lake.

STATE SHOULD OWN AND CONTROL DAM.

No private interest should be permitted to own and operate the dam at the source of the Truckee River. Such private ownership and control, paying attention only to the demands for water for its own purposes, will, of course, manipulate the dam with no voluntary regard to the rights and privileges of the owners of littoral lands on the lake or of other parties on the river. The power to do that should not be entrusted to any private parties, no matter how benevolent. As above mentioned, the right to maintain and operate the dam expired, by legislative limitation, a long time ago; and, it is believed, the private parties now operating the dam have acquired no prescriptive or other rights to continue to use and operate it. The waters of the lake and the river are used and, in the future, will be still more used by Californians with diverse and adverse interests. These constantly increasing interests should not be at the mercy of any one interest adverse to all the rest. No private person or corporation should be longer permitted to maintain and operate the dam at the source of the Truckee River, with the power to regulate, for its own profit and to the probable detriment of everybody else, the flow of water from the lake and, therefore, the level of the water in the lake.

COMMISSION RECOMMENDS STATE CONTROL OF DAM.

It is true that any person injured or damaged by the act of those in control of the operation of the dam may sue for recovery of compensation for any injury or damage suffered by reason of an improper use of the dam. But the Conservation Commission believes that it is against public policy to permit any private interest to control the operation of a dam by which the level of the waters of the lake can be raised or lowered, to the discomfort, if not the actual injury or damage, of the littoral owners on the lake. Such a power should be only in the hands of the State, the representative of all those having adverse interests on the lake and the river in California. In this way, and in this way only, the Commission believes, can the adverse rights of all persons concerned be best conserved. This Commission, therefore, earnestly recommends that the State take all possible steps for the ousting of the private parties from the control of the dam at the source of the Truckee River, and that it assume the maintenance and operation of the dam.

WASTING OF ARTESIAN WATER.

In some portions of this State flowing wells are permitted to go uncapped, even when the water is not being put to beneficial use. The result is that the underground reservoirs from which these wells derive their supply are depleted and those using water from them in localities above the uncapped wells are deprived of water for irrigation and other purposes. The wasting of water in this manner is an inexcusable act and an economic loss which should not be tolerated. There is on the statute books of this State a law prohibiting this waste. But for some reason or other the district attorneys of the counties in which these wastes are being permitted have taken no steps, so far as this Commission has been able to ascertain, to enforce this very salutary law. Its enforcement is necessary to the public good. The waste is against public policy, unnecessary, easy and cheap of abatement, and an injury to others far removed from the seat of the wastage. The Conservation Commision strongly urges that this law be enforced or amended so that it may and will be enforced.

IRRIGABLE LANDS IN CALIFORNIA.

Any process by which the fertility of our lands may be increased, or by which non-producing lands may be made productive, is, from the standpoint of the conservation, of the greatest importance.

On account of the small and uncertain rainfall in many and large portions of this State, irrigation is necessary. By means of irrigation large areas have been made far more productive than they were before; large areas of non-productive lands have been made very productive, and there are still other large areas of small-productive and non-productive lands which may, by irrigation, be made largely, even enormously, productive. Parts of southern California, including Imperial County, and the Sacramento and San Joaquin valleys are illustrative of all these conditions. It is not at all a wild statement to say that there is irrigable land enough in this State to accommodate, in plenty and prosperity, a population of 30,000,000 rural people. Nor is it at all beyond the certainties of the future that millions of American families will be raised, in comfort and luxury, on irrigated California farms of five and even less acres. In this manner, the Conservation Commission believes, will be solved, as well as it may be solved, the problem of the drift to the cities of the country population, upon which depends the conservation of human life, comfort, prosperity and happiness.

INVESTIGATION OF IRRIGABLE LANDS.

The Conservation Commission, therefore, deemed it to be its duty, under the provisions of the act creating it, to investigate, as well as it could in the short time at its disposal, the location and area of the irrigable lands of the State and the sources from which those lands may be irrigated. The Commission, therefore, entered into a coöperative agreement with the U. S. Department of Agriculture for the purpose of gathering these data. The results of that agreement are attached hereto in the forms of reports on and maps of the several divisions into which, for the purposes of the investigation, the State was divided. These reports and maps, the Commission believes, are of great value, and will greatly aid the population of areas of California which are now only sparsely, if at all, inhabited.

WEEKS LAW.

On March 1, 1911, Congress passed a law (see Chap. 186, U. S. Stat.) entitled "An act to enable any state to coöperate with any other state or states, or with the United States, for the protection of the watersheds of navigable streams, and to appoint a commission for the acquisition of lands for the purpose of conserving the navigability of navigable rivers."

By this act the sum of two hundred thousand dollars was appropriated "to enable the Secretary of Agriculture to coöperate with any state or group of states, when requested to do so, in the protection from fire of the forested watersheds of navigable streams." The law further provides: "That no (such) stipulation or agreement shall be made with any state which has not provided by law for a system of forest fire protection. That in no case shall the amount expended in any state exceed in any fiscal year the amount appropriated by that state for the same purpose during the same fiscal year."

This act is administered, as therein provided, through the Department of Agriculture, but more directly by the United States Forest Service, and all matters connected with the question as to whether or not a state is entitled to the use of any portion of the sum appropriated by said act, are acted upon by the Secretary of Agriculture on the recommendation of the district forestry in the state asking federal aid under this act. Rules and regulations of the department have been framed and promulgated, under which the federal officials act.

RESULT OF "WEEKS LAW" IN OTHER STATES.

The following table sets forth the states which received federal aid under the "Weeks Law" in 1911, the amounts expended under its provisions by the Federal Government in each state, together with the amounts expended by each of the states then receiving federal aid:

State.	State expenditures.	Federal expenditures.	Allotment to states.	Balance of allotment unexpended.
Maine	$23,557 07	$9,991 80	$10,000 00	$8 20
New Hampshire	13,876 21	6,219 50	7,200 00	980 50
Vermont	2,243 90	1,218 00	2,000 00	782 00
Massachusetts	400 12	365 00	1,800 00	1,435 00
Connecticut	513 96	6 00	1,000 00	994 00
New York	3,837 59	2,000 00	2,000 00	----------
New Jersey	1,241 50	990 00	1,000 00	10 00
Maryland	262 85	261 00	600 00	339 00
Wisconsin	20,841 87	4,437 25	5,000 00	562 75
Minnesota	25,675 77	10,000 00	10,000 00	----------
Oregon	8,758 89	3,305 00	5,000 00	1,695 00
Totals	$101,209 73	$38,793 55	$45,600 00	$6,806 45

Of the $200,000 appropriated by the U. S. Government for use in the various states, there remained unexpended, on January 1, 1912, the sum of $161,206.45.

The Conservation Commission earnestly recommends that the State, by complying with the provisions of the "Weeks Law" and appropriating at least the sum of $10,000, avail itself of the provisions of that law and thus secure, for forest protection purposes, federal aid to the extent of that sum.

The gist of the "Weeks Law," under which, if the State appropriates money for the protection from fire of watersheds and navigable streams and their tributaries, it will receive from the Federal Government a like sum up to and not to exceed, under the rules of the Secretary of Agriculture, $10,000 per annum, is attached hereto.

IRRIGATION.

The Commission entered into the following coöperative agreement with the United States Department of Agriculture:

UNITED STATES DEPARTMENT OF AGRICULTURE,
OFFICE OF THE SECRETARY.

Agreement Relating to Coöperative Irrigation Investigations.

This Agreement, made and entered into this first day of July, one thousand nine hundred and eleven, by and between the Conservation Commission of the State of California, for and on behalf of the State of California, party of the first part, and the Acting Secretary of Agriculture, for and on behalf of the Department of Agriculture of the United States of America, party of the second part.

Whereas, the party of the second part has been conducting irrigation investigations in California during a period of eleven years and has accumulated a large amount of information relating to water, the use of water, and irrigation in said State, and will continue to maintain in said State an expert field force and gather additional information along the same lines during the fiscal year 1912; that is to say, commencing July 1, 1911, and ending June 30, 1912; and

Whereas, in an act entitled "An act creating and establishing a commission for investigating and gathering data and information concerning the subjects of forestry, water, the use of water, water power, electricity, electrical and other power, mines and mining, mineral and other lands, dredging, reclamation and irrigation, and for revising, systematizing and reforming the laws of this State upon, concerning, regarding, or appertaining to these said subjects; providing for the appointment of said commission to be known as the 'Conservation Commission of the State of California;' prescribing the powers and duties of said commission and its members, and providing for the expenses of said commission and appropriating money therefor," approved April 8, 1911, the legislature of California has created a Conservation Commission for the purpose of investigating and gathering data and information regarding, among other things, the subjects of water, the use of water, and irrigation, and said Conservation Commission desires to present promptly to the people and legislature of California full information on water, the use of water, and irrigation in said State, as provided in said act; and

Whereas, the party of the second part desires to extend and enlarge its investigations of the water and irrigation conditions and possibilities in the State of California, as related to agricultural development; and

Whereas, the party of the first part is desirous of having the party of the second part aid said party of the first part in gathering data and information concerning irrigation in the State of California with a view to enabling the party of the first part to make full, accurate and complete reports thereon, and the party of the second part wishing to assist the party of the first part in conducting such work with a view of enabling the party of the second part to extend, enlarge and complete the irrigation investigations which said party is conducting relative to making reports on the present extent and future possibilities of irrigation in California and the prompt preparation of such reports in form for publication, using therefor such data and information as are now in possession of the party of the second part, or that may be collected by said party of the second part during the existence of this agreement; now, therefore,

This Agreement Witnesseth:

First. The party of the first part, for and in consideration of the promises and agreements of the party of the second part, well and faithfully executed in the manner as hereinbefore provided, does hereby promise and agree with the party of the second part as follows:

1. To coöperate with the party of the second part in gathering data and preparing a report on water, the use of water, and irrigation with particular reference to the present extent and future possibility of irrigation in California.

2. To contribute to the expenses incurred in gathering the data and preparing the reports as provided for in this agreement during the period commencing with the first day of July, one thousand nine hundred and eleven, and ending the thirtieth day of June, one thousand nine hundred and twelve, a sum not to exceed ten thousand

dollars ($10,000.00), including salaries, and expenses of travel and subsistence, when the same are authorized by the party of the second part, or the representative of said party by the party of the first part; provided, that all moneys paid by the party of the first part hereunder shall be used for the specific purposes set forth in this agreement, and that the investigations made and the reports prepared hereunder shall be in addition to the investigations made and reports prepared and published under the coöperative agreement existing between the party of the second part and the Engineering Department of the State of California. All claims for expenses incurred and work performed by said employees shall, from time to time, be presented and filed with the party of the first part, audited, and, if found correct, approved by the party of the first part.

Second. The party of the second part, for and in consideration of the promises and agreements of the party of the first part, well and faithfully executed in the manner as herein provided, does hereby promise and agree with the party of the first part as follows:

1. To extend and enlarge the investigations which said party is conducting during the fiscal year 1912, beginning July 1, 1911, and ending June 30, 1912, for the purpose of determining the present extent and future possibilities of irrigation in California and for preparing reports thereon in such manner as to set forth what the present extent and future possibilities of irrigation in California are, including, (*a*) a statement of the water supply of California, both surface and underground, available for irrigation; (*b*) a statement of the extent, character, and location of the agricultural areas susceptible of and adapted to irrigation; (*c*) a statement of the present extent of irrigation in California; (*d*) a statement of the extent and location of the unused waters available for irrigation extension, and (*e*) an irrigation map of California.

2. To contribute to the expense of the above-mentioned investigation and reports from the moneys appropriated by Congress for "Irrigation Investigations," 1912, during the period from the first day of July, one thousand nine hundred and eleven, to and including the thirtieth day of June, one thousand nine hundred and twelve, the sum of one thousand dollars ($1,000.00), in addition to any moneys expended by the party of the second part under the coöperative agreement entered into by said party with the Engineering Department of the State of California; including the salaries of employees, expenses of travel and subsistence, when the same are authorized by the Secretary of Agriculture, and the cost of preparing, illustrating, and printing the above-mentioned reports.

Third. It is mutually understood and agreed by and between the parties hereto as follows:

1. That in the event that any question shall arise between the parties hereto as to the meaning of this instrument, the provisions of said act of the legislature of the State of California, approved April 8, 1911, hereinbefore referred to, as far as applicable, shall control.

2. That the Secretary of Agriculture may, from time to time, delegate to any officer or person in the employ of the United States Department of Agriculture, with the same effect as if such officer or employee were specifically named herein, every right and power hereby conferred upon the said Secretary of Agriculture, and until the party of the first part shall be advised in writing to the contrary, every right and power conferred upon the said Secretary of Agriculture shall be deemed to be delegated to the Director of the Office of Experiment Stations, of the United States Department of Agriculture, or the representative of said Director.

3. That such complete typewritten reports of the investigations carried on under this agreement as shall be made shall be filed from time to time with the Conservation Commission of the State of California as may be required by said Commission.

4. That the results of the coöperative work are to be the joint property of the parties hereto and either of the parties may publish such results, provided proper credit be given to the other party for its part in the work, and provided further, that any matter to be published by either party be submitted to the other party before publication.

5. That this agreement shall take effect on the first day of July, one thousand nine hundred and eleven, and shall expire on the thirtieth day of June, one thousand nine hundred and twelve.

6. That this contract shall not be assigned in whole or in part; that no Member of or Delegate to Congress, or Resident Commissioner, after his election or appointment, and either before or after he has qualified and during his continuance in office, and no officer, agent, or employee of the Government, shall be admitted to any share or part of this contract or agreement, or to any benefit to arise thereupon; and that

no convict labor shall be employed in carrying out the terms of this agreement, in accordance with executive order signed May 18, 1905. Nothing, however, herein contained shall be construed to extend to any incorporated company, where such contract or agreement is made for the general benefit of such incorporation or company (section 3741, Revised Statutes, and sections 114-116, act of March 4, 1909).

In Testimony Whereof, the parties hereto have executed this agreement on the day, month and year first above written.

CONSERVATION COMMISSION OF THE
STATE OF CALIFORNIA.
(Signed) GEO. C. PARDEE.
Party of the first part.
(Signed) W. W. HAYS,
Acting Secretary of Agriculture,
Party of the second part.

In accordance with this agreement, the Department has furnished us with reports showing the result of this investigation to date. The following letters of transmittal and submission explain the field covered by the coöperative agreement and outline additional reports in preparation:

LETTER OF TRANSMITTAL.

U. S. DEPARTMENT OF AGRICULTURE,
OFFICE OF EXPERIMENT STATIONS.
WASHINGTON, D. C., October 15, 1912.

HON. GEO. C. PARDEE, *Chairman*,
Conservation Commission of the State of California,
Sacramento, California.

SIR:

I transmit herewith three reports on the irrigation resources of California, prepared under the supervision of Samuel Fortier, Chief of Irrigation Investigations of this office, by Mr. Frank Adams, in charge of the irrigation investigations of this office in California, and his collaborators, S. T. Harding, R. D. Robertson, and C. E. Tait, in accordance with a coöperative agreement between the Secretary of Agriculture and your Commisssion, dated July 1, 1912, which makes the results of the work the joint property of the Department and your Commission.

Respectfully,

(Signed) A. C. TRUE, Director.

LETTER OF SUBMITTAL.

U. S. DEPARTMENT OF AGRICULTURE,
OFFICE OF EXPERIMENT STATIONS,
IRRIGATION INVESTIGATIONS.
WASHINGTON, D. C., October 15, 1912.

DR. A. C. TRUE,
Director, Office of Experiment Stations,
Department of Agriculture.

SIR:

Herewith are transmitted three reports on the irrigation resources of northern, central, and southern California, prepared in accordance with the coöperative agreement between the Secretary of Agriculture and the Conservation Commission of California, dated July 1, 1911. Accompanying the reports are three irrigation maps, also covering the northern, central, and southern portions of the State.

It is recommended that these reports and maps be forwarded to the Conservation Commission in accordance with the clause in the above-mentioned coöperative agreement making the results of the investigations the joint property of the Department and the Commission.

In presenting these reports covering a portion of the work carried on, it is not intended to submit a complete engineering or agricultural discussion of the extensive land and water resources of California, but rather what might be termed preliminary reconnaissance reports that will give to the people of California generally a clear outline of irrigation conditions and possibilities in each agricultural area of the State.

The methods and scope of the field investigations are indicated in the preliminary pages of the report on northern California. Each valley agricultural area in the State, with the possible exception of very small and unimportant isolated areas in the mountains, has been visited and mapped to show the valleys, plains, and foothill-belt areas, the lands now irrigated, and the principal irrigation canals, the mapping being based on reconnaissance observation rather than on exact surveys.

In addition to the reports and maps submitted herewith, this office has at hand more detailed reports, with maps, dealing with present irrigation development in six typical sections of the State, viz: Shasta Valley, the Sacramento Valley areas to which Feather River is tributary, the valley of San Joaquin River and tributaries, the portion of Santa Clara Valley, in Santa Clara County, watered by Los Gatos, Guadalupe, and Campbell creeks; the valley of Santa Clara River, in Ventura County; and the valley of Santa Ana River, in San Bernardino, Riverside, and Orange counties.

It is our intention, in accordance with our understanding with the Commission, to prepare a publication summarizing these detailed reports and also summarizing the three reports on irrigation resources transmitted herewith for publication by the Conservation Commission. This summary report will carry also the full irrigation map of the State and the more detailed maps of the six typical sections referred to above.

In submitting our various reports of work done in coöperation with the Conservation Commission it is due that we give credit to the State Engineering Department of California for data used in these reports that have been gathered at the joint expense of that Department and this office during the past ten years; to the United States Bureau of the Census, with whom we coöperateed in taking the irrigation census of California; and to the following field agents, Harry Barnes, S. H. Beckett, R. W. Broadie, J. N. Irving, J. T. Kingdon, J. C. Marr, R. V. Meikle, F. W. Stanley, E. W. Stanton, Jr., N. M. Stover, A. J. Salisbury, Jr., and S. C. Whipple.

Respectfully,

(Signed) SAMUEL FORTIER.
Chief of Irrigation Investigations.

IRRIGATION RESOURCES OF NORTHERN CALIFORNIA.

By FRANK ADAMS,
Irrigation Manager in Charge of Irrigation Investigations in California.

INTRODUCTION.

This is the first of three reports giving the more detailed results of an investigation into the irrigation resources of California made by the U. S. Department of Agriculture, under coöperative agreement with the Conservation Commission of the State of California.

The ground sought to be covered in this investigation was (1) a study of the water supply of California available for irrigation; (2) a statement of the extent, character, and location of the agricultural areas susceptible of and adapted to irrigation; (3) a statement of the present extent of irrigation in California; and (4) a general statement of the extent and location of the unused waters available for irrigation. In connection with this study it was also proposed to prepare an irrigation map of California.

For the prosecution of this investigation a fund of $10,000 was set aside by the Conservation Commission and about $4,000 was allotted by the U. S. Department of Agriculture. This small fund was obviously inadequate to make an exhaustive engineering and agricultural study of the irrigation resources of California. It was thought to be sufficient, however, by making use of available published and unpublished data, for showing with substantial accuracy such essential features regarding irrigation development and possibilities in California as are necessary to give the general public a clearer idea than they have heretofore had of the importance of enacting better irrigation laws.

The State of California covers an approximate area of one hundred million acres and occupies a north and south distance of over seven hundred miles. For these reasons and because of the diversity of conditions it is not convenient to present the results of the entire study in as much detail as is desired in a single report. This report, therefore, deals with northern California alone, which is taken to be that portion of the State north of San Francisco, San Pablo, and Suisun bays, and the southern boundaries of Sacramento and Amador counties. Further reports follow in sequence covering the irrigation resources of central and southern California. A fourth report is being prepared that summarizes the results obtained for the whole State and treats in more detail of the character of the present use of water for irrigation, in accordance with a second agreement with the Conservation Commission entered into early in 1912.

PREVIOUS INVESTIGATIONS.

California has long been a field of scientific agricultural investigation, so that the main agricultural characteristics of the State are well known. In 1880 Mr. Wm. Ham Hall, state engineer, issued as part of his first report, a report on the irrigation of the plains in which questions of both land and water were treated exhaustively in the light of physical data and knowledge of irrigation then available.[1] Annual and special reports of the California Agricultural Experiment Station have considered questions of soils, alkali, crops, waters, and culture methods from the standpoint of irrigation development. In 1883, Dr. E. W. Hilgard, until recent years director of the station, submitted to the superintendent of the census a treatise on the agricultural features of California, with an agricultural map, that outlined the various agricultural zones of the State and described both their physico-geographical and main soil features.[2] For many years the United States Geological Survey has been mapping topography, measuring streams, and studying underground waters in California, and for several years the United States Reclamation Service had engineers in the field looking for possibilities for development under the reclamation act. Since 1900 the Office of Experiment Stations, U. S. Department of Agriculture has been prosecuting irrigation investigations in California, since 1903 in coöperation with the State, and numerous bulletins giving results of these investigations have been published from time to time.[3] In addition, during 1910 and 1911, the Office of Experiment Stations took a full irrigation census of California under coöperative agreement with the Bureau of the Census, this census covering not only acreages and costs, but also the more general features of irrigation development. Thus the investigation into irrigation resources with which this and the succeeding reports deal had as a starting point a large mass of known data without which the work would not have been possible within the limits of time and money available under the agreement with the Conservation Commission.

PLAN OF FIELD WORK.

Irrigation is not equally necessary or equally advantageous all over California, nor is it possible to determine either its necessity or its advantage wholly by rainfall. If general grain farming were the highest use to which the soils of the State could be put, but little irrigation development would be found either now or in the future in the coast or interior valleys north of Sacramento or Stockton. But from these points southward, the degree of irrigation necessity would increase toward the southern boundary, becoming absolute in the lower San Joaquin and in most of the agricultural territory south of Tehachapi. If, however, it were not for the fact that, except in the mountain valleys, the California winter is a growing period, even the northern third of the State would not grow large annual crops without irrigation, because rainfall in California comes mostly from November to April, followed by the well-known California rainless summer, during which few plants could be both germinated and brought to maturity without artificial moisture. On the other hand, it is the rainless summers that make irrigation either a necessity or a marked advantage in nearly every section of the State, and which prevent disregarding any section in a state-wide irrigation survey.

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[1] Report of the State Engineer to the Legislature of California, Session of 1880.

[2] U. S. Int. Dept., Census Office, Report on the physical and agricultural features of the State of California, by E. W. Hilgard, Ph.D., 1884.

[3] See chiefly U. S. Dept. Agr., Office Expt. Stas. Buls. 100, 119, 133, 158, 207, 236, 237, 239; Senate Doc. 246, 60th Cong., 1st Sess.

The climatic and other agricultural features of California being so variant in their effect on irrigation requirements and practices, the most practicable way of treating the irrigation resources is by what might be termed irrigation zones, within which both present irrigation practice and probable future irrigation needs are generally the same. Six such zones or divisions, following county lines where convenient and topography rather than hydrography, were accordingly assumed for northern California, as follows: The northern coastal counties, including the bay and coast counties north of San Francisco and also Lake County; the northcentral mountain valleys, including Siskiyou and Trinity counties, Shasta County north of Pit River, and the portion of eastern Lassen County that lies in Fall River Valley; the northeastern plateaus and valleys, including Modoc and Lassen counties except the part of Fall River Valley lying in Lassen County, and Mountain Meadows, west of the main range, in Lassen County; the upper Sierra or Feather River valleys, including Mountain Meadows in Lassen County and the valleys in Plumas and Sierra counties, all of which lie in the upper Feather River drainage; the Sierra foothills, below an elevation of 2,500 feet and above the plains of Sacramento Valley; and Sacramento Valley.

Platting agricultural areas—This involved a reconnaissance of each area to determine the main questions as to its location, approximate acreage, and general soil and agricultural features. In this reconnaissance only areas of importance from the standpoint of irrigation were considered; that is, only those areas lying within the general belts of available water supplies and where irrigation is needed or would prove beneficial. All valley areas were sought to be visitd, even though, as on the immediate coast, water may not now be used, or, as on the deserts, no irrigation is now practiced or immediately likely on account of an absence of a water supply. Rolling and broken mountain areas were included only as they are within range of water for irrigation, as the plateaus of Modoc and Lassen counties and the foothills of the western Sierra Nevada. Further standards were that the areas should be irrigable, cultivable, and capable of producing agricultural crops, that they should not be forested with merchantable timber and therefore at present more valuable for forests than for agriculture, and that where wooded and rolling they should at least be similar in character to nearby areas that are being cultivated and irrigated. Thus an attempt was made to consider all agricultural lands in the State that are topographically irrigable and within reasonable reach of water supply for irrigation; yet where the lands exceeded in acreage the areas for which there is water for irrigation, no endeavor was made to indicate the particular areas on which the available water is most likely to be used and which, in a very strict sense, might therefore be termed the only irrigable areas of the State. The outlines of the areas are based on careful field inspection and not on instrument surveys. In some cases, particularly of the Sierra foothills and the foothill and valley plains of Sacramento Valley, the absence of distinct differences made the choice of where the outlines should be run to some degree a matter of the personal judgment of the agent. But where doubt existed as to their proper location for important areas, careful inspection was made with a view to such revision as might be found necessary. Therefore, the agricultural areas as shown on the accompanying map are believed to be substantially correct, yet the map should in no case be considered as drawing the line between agricultural and non-agricultural land on individual holdings.

Platting irrigated areas—This was done in connection with the reconnaissance of agricultural areas but was based chiefly on the irrigation census. In case of important areas, the data were revised to 1911 and under the larger canals in Sacramento Valley to 1912, inclusive. Areas irrigated by small private ditches or small private pumping plants have been platted to the nearest section where such section is shown by the census returns or where it has been otherwise possible to locate such areas with reasonable certainty. Areas under small private systems for which the location could not be ascertained in this way have been omitted from the map but are included in the tabular summaries in this report.

Water supply—General data regarding the water sources available to the various areas have been obtained in the field in connection with the reconnaissance of those areas for determining their location, extent, and agricultural characteristics. Stream-flow data have been chiefly obtained from the records of the California State Engineering Department from 1878 to 1884[1] and from those of the United States Geological Survey for the years since then down to 1910, inclusive.[2] Occasional records have been taken from more recent gagings by the Geological Survey or by this Office in coöperation with it. For probable run-off where no records of public or private gagings have been at hand, conservative estimates have been made on a basis of rainfall, provided available data have warranted such procedure. Data regarding known storage have come mainly from the reports of the United States Reclamation Service and from the reports of water-supply investigations of the city of San Francisco. Other sources have, however, been drawn on as indicated. No opportunity has been afforded for searching out reservoir sites by field investigation. For northern California conclusions regarding underground supplies are based on data regarding irrigation wells reported to 1910, inclusive, by the irrigation census.

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[1] Cal. Engineering Dept., Physical Data and Statistics. Wm. Hall, state engineer, 1886.

[2] Summarized in U. S. Geol. Survey Water Supply Papers Nos. 298 and 300.

SUMMARY OF AGRICULTURAL AND IRRIGATED AREAS.

The concluding pages of this report summarize the data that have been gathered as to the irrigation resources of northern California, but the following preliminary summary will indicate in advance the relative areas in the six different irrigation zones that have been assumed for northern California:

Summary of agricultural and irrigated areas in northern California.

Division.	Valley agricultural land. Acres.	Valley plains. Acres.	Foothill agricultural land. Acres.	Areas irrigated. Acres.
Northern coastal counties	503,000			2,290
North central mountain valleys	435,000			99,910
Northeastern plateaus and valleys	867,000			161,850
Feather River valleys	158,000			50,600
Sierra foothills			789,000	45,250
Sacramento Valley	2,659,000	790,000		123,800
Total	4,622,000	790,000	789,000	483,700

NORTHERN COASTAL COUNTIES.

The seven counties embraced within this division or zone have been generally considered as not requiring irrigation. For the extreme northern coast, as above Cape Mendocino, such is undoubtedly the case, as it is also for the remainder of the division if absolute necessity is meant, or if the crops grown are perennial and deep-rooting. But away from the coast, rainless summers are as much a fact here as elsewhere in the State, and for such crops as alfalfa and summer-growing annuals, irrigation grades from a distinct advantage to almost a necessity. The growth and yield of even orchards and vineyards when on shallow and non-retentive soil can also undoubtedly be increased by irrigation water where topography and supply permit its application. It can safely be predicted that throughout this entire division, excepting along the immediate coast, every drop of water that can be put on to land will eventually be used in irrigation.

Summary of valley agricultural and irrigated areas in northern coastal counties of Del Norte, Humboldt, Mendocino, Sonoma, Lake, Napa, and Marin.

Area.	County.	Valley agricultural land, acres.	Area irrigated, acres.	Principal water sources for irrigation.
Smith River Valley and adjacent coastal lands	Del Norte	36,000	0	Smith River; supply ample.[1]
Lower Klamath River	Del Norte	8,000	0	Klamath River; supply ample.[1]
Upper Klamath and tributaries	Humboldt	300	100	Klamath River and tributaries; supply ample.
Prairie Creek	Humboldt	700	--------	Prairie Creek; supply ample.[1]
Orick	Humboldt	1,300	--------	Redwood Creek; supply ample.[1]
Big, Stone, and Freshwater lagoons	Humboldt	1,800	--------	Lagoons south of Orick; supply ample.[1]
Hupa Valley	Humboldt	6,800	--------	Trinity River; supply ample.
Little River	Humboldt	2,400	150	Little River; supply ample.[1]
Essex	Humboldt	700	--------	Mad River; supply ample.[1]
Upper Mad River, scattering	Humboldt	1,000	--------	Mad River and tributaries; supply ample.
Mad River bottoms	Humboldt	6,200	--------	Mad River; supply ample.[1]
Arcata Bottoms	Humboldt	11,500	0	Mad River and Jacoby and Freshwater creeks; supply ample.[1]
Lower Humboldt Bay drainage	Humboldt	5,900	0	Elk River and Salmon creeks; supply ample.[1]
Kneeland Prairie	Humboldt	9,500	0	None readily accessible.
Maple Creek	Humboldt	600	0	Maple Creek; supply ample.[1]
Eel River Valley	Humboldt	42,000	0	Eel River; supply ample.[1]
Elinor	Humboldt	500	0	Eel River and small tributaries; supply ample, mainly by pumping.[1]
Pepperwood	Humboldt	800	0	Eel River and small tributaries; supply ample, mainly by pumping.[1]
Shively	Humboldt	600	--------	Eel River and small tributaries; supply ample, mainly by pumping.[1]
Englewood	Humboldt	300	--------	Eel River and small tributaries; supply ample, mainly by pumping.[1]
Myers	Humboldt	300	50	South Fork Eel River; supply ample by pumping.
Miranda	Humboldt	300	--------	South Fork Eel River; supply ample by pumping.
Phillipsville	Humboldt	300	--------	South Fork Eel River; supply ample by pumping.
Fort Seward	Humboldt	600	--------	South Fork Eel River; supply ample by pumping.
Garberville	Humboldt	1,300	--------	South Fork Eel River; supply ample by pumping.
Van Duzen River, scattering	Humboldt	2,500	25	Van Duzen River; supply ample.
Capetown	Humboldt	1,900	0	Bear River; supply ample.[1]

Summary of valley agricultural and irrigated areas in northern coastal counties of Del Norte, Humboldt, Mendocino, Sonoma, Lake, Napa, and Marin—Continued.

Area.	County.	Valley agricultural land, acres.	Area irrigated, acres.	Principal water sources for irrigation.
Petrolia	Humboldt	800	35	Mattole River and tributaries; supply ample.[1]
Upper Mattole Valley	Humboldt	4,300	0	Mattole River and tributaries; supply ample if storage is feasible.
Humboldt County, scattering	Humboldt	----------	6	
Long Valley	Mendocino	4,400	60	Long Valley Creek; supply ample if storage is feasible.
Round Valley	Mendocino	18,400	20	Middle Fork Eel River and underground; supply ample; some drainage necessary.
Williams Valley	Mendocino	1,000	0	Run-off from 11 square miles of tributary watershed.
Willits Valley	Mendocino	8,000	10	Small creeks and probably underground; supply probably ample; much drainage needed.
Walker Valley	Mendocino	1,500	60	Walker Valley Creek and springs; run-off with storage probably ample.
Potter Valley	Mendocino	7,000	100	70 square miles of watershed on East Fork of Russian River; tunnel diversion from South Eel River and pumping; supply ample.
Redwood Valley	Mendocino	4,000	10	80 square miles of watershed on West Fork of Russian River and probably underground; supply present for at least considerable area.
Coyote Valley	Mendocino	3,800	10	80 square miles of watershed on East Fork of Russian River, South Eel River, and pumping.
Ukiah Valley	Mendocino	15,000	160	250 square miles of watershed on Russian River, tunnel diversion from South Eel River, and pumping; supply ample.
Sanel Valley	Mendocino	5,000	0	Russian River by pumping.
Anderson Valley	Mendocino	5,600	25	Pumping from Navarro River and tributaries.
Garcia River Valley	Mendocino	1,800	0	Garcia River.[1]
Mendocino County, scattering	Mendocino	----------	92	
Russian River Valley	Sonoma	35,000	200	Russian River, tunnel diversion from South Eel River, and pumping; with full development supply ample for area likely to be irrigated.

Dry Creek Valley	Sonoma	8,000	20	100 square miles of watershed producing mostly torrential flow; some pumping.
Santa Rosa Valley	Sonoma	90,000	60	Santa Rosa, Mark West, and Petaluma creeks are perennial, but give small summer flow; underground water available in some cases where needed.
Knights Valley	Sonoma	2,500	13	10 square miles of local watershed.
Los Guilicos Valley	Sonoma	16,000	15	50 square miles of watershed would give partial supply if storage is available.
Sonoma Valley	Sonoma	23,000	344	80 square miles of watershed with storage required; artesian flow near Sonoma; supply inadequate for full irrigation.
Gravelly Valley	Lake	500	5	Proposed reservoir site.
Upper Lake	Lake	6,200	0	Middle Creek with 67 square miles of watershed of typical coast range topography above Clear Lake; average annual run-off is 770 acre-feet per square mile.
Bachelor Valley	Lake	1,900	0	13 square miles of local watershed.
West Lake Valley	Lake	1,100	0	Small local drainage and pumping from Clear Lake.
Scotts Valley	Lake	4,200	25	77 square miles of watershed; some artesian supply.
Big Valley	Lake	11,000	280	Kelsey Creek with 120 square miles of rough drainage yielding a large torrential run-off; reservoir reported privately surveyed with capacity of 27,500 acre-feet; supply should be ample if all conserved.
Long Valley	Lake	2,600	0	Long Valley Creek with about 40 square miles of watershed.
Little Indian Valley	Lake	1,400	24	North Fork of Cache Creek. Little Indian Valley on this stream has been considered as a reservoir site, the United States Reclamation Service estimating that 110 square miles of watershed will produce 50,000 acre-feet annually.[2]
High Valley	Lake	2,000	0	8 square miles of local watershed.
Burns Valley	Lake	900	0	Possibly minor storage and pumping from Clear Lake.
Lower Lake	Lake	1,700	31	9 square miles of local watershed and pumping from Clear Lake.
Morgan Valley	Lake	1,700	0	10 square miles of local watershed, insufficient without underground supply.

Summary of valley agricultural and irrigated areas in northern coastal counties of Del Norte, Humboldt[1]*, Mendocino, Sonoma, Lake, Napa, and Marin*—Continued.

Area.	County.	Valley agricultural land, acres.	Area irrigated, acres.	Principal water sources for irrigation.
Cobb Valley	Lake	400	50	10 square miles of local watershed on upper Kelsey Creek.
Coyote Valley	Lake	4,800	65	Putah Creek; supply ample if available; United States Reclamation Service estimates 80,000 acre-feet available for storage.[2]
Middletown	Lake	6,600	142	Putah Creek drainage; supply ample if available, although storage necessary.
Napa Valley	Napa	42,800	311	Napa River and Conn, Sarco, Milliken, Dry, and White Sulphur creeks would give all needed with storage; tributary watershed of 235 square miles with light summer flow; underground supply uncertain.
Berryessa Valley	Napa	10,000	130	550 square miles of Putah Creek drainage with storage would supply water needed if legally available.
Capell Valley	Napa	700	0	16 square miles of local watershed on Capell Creek.
Foss Valley	Napa	400	0	10 square miles of local watershed.
Wooden Valley	Napa	1,100	0	8 square miles of local storage tributary to Suisun Creek.
Gordon Valley	Napa	1,000	0	18 square miles of local watershed.
Marin County, scattering	Marin	----------	67	
Totals	--------------	503,000	2,293	

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[1] Little irrigation likely; see text.

[2] U. S. Reclamation Service, 5th Annual Report.

As shown in the accompanying tabular summary, although numerous, none of the valley agricultural areas in this division are large compared with the principal areas elsewhere in the State. The three northern coast counties comprise an important redwood belt, and particularly in Del Norte and Humboldt, almost the sole agricultural industries are dairying and stockraising. From Russian River Valley in Mendocino County north to southern Humboldt, stockraising predominates, while in the remainder of the division, particularly about Ukiah, Cloverdale, Geyserville, Healdsburg, Santa Rosa, and Sebastopol, in Mendocino and Sonoma counties, Kelseyville, in Lake County, and throughout Napa Valley the more intensified culture associated with orchard and vineyard growing leads. Here, although some orchards on the drier land will be irrigated as the benefits of irrigation are more thoroughly appreciated, as well as farther north the main use of water will be on alfalfa, small fruits, and truck.

The water resources of this division are less utilized than are those of any other similar area in California. Due to this fact there have been less investigation and measurement of their quantity. The upper drainage of Cache and Putah creeks in Lake County has been measured for proposed use in Sacramento Valley, but except for Klamath River, in Oregon, no gaging stations have been maintained by the United States Geological Survey on any of the coast streams in this division prior to 1910.[1] It is known, however, that the flow of Smith, Klamath, Trinity, Mad, lower Eel, Mattole, and the other principal streams in Del Norte and Humboldt counties is considerably more than will ever be required in irrigation, owing to the small areas of agricultural land bordering them and lying away from the coast. As a rule, the smaller streams in these two counties will be of most importance, because most easy to put on the irrigable land, and because the crops that can be raised under irrigation generally will not yet justify the cost of lifting water from the lower beds of the large streams. No measurements are at hand for these smaller streams, but in most cases their flow is ample for the small areas within their reach. In Mendocino, Sonoma, Lake, and Napa counties, the water supply is less abundant and the areas of agricultural land larger. There the most important streams from an irrigation standpoint are Russian River, reinforced by tunnel diversion from South Eel River north of Potter Valley, Kelsey Creek, and Napa River. Proposed increased diversion from South Eel River into Russian River will if carried out have an important bearing on irrigation development in Russian River Valley and nearby areas. Involved with this is the proposed storage in Gravelly Valley, Lake County, of 200,000 acre-feet of water, Gravelly Valley reservoir site having a tributary watershed of 240 square miles. The generation of power in connection with the diversion from South Eel River is part of the development under way, and as the use of the water in Russian River, Potter, and neighboring valleys will be largely by pumping, the power features can be made an important adjunct.

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[1] In the fall of 1910 or the fall of 1911 gaging stations were established by the Geological Survey in this division as follows: Middle, North, and South forks Smith River, near Crescent City; Redwood Creek, near Korbel and near Orick; Mad River, near Arcata; Eel River, near Scotia; Van Duzen River, near Bridgeville; Yager Creek, near Carlotta; South Fork Eel River, near Garberville; Middle Fork Eel River, near Covelo; South Eel River, near Hearst; Russian River and East Fork, near Ukiah; Russian River, near Geyserville.

In Napa County, irrigation conditions are somewhat similar to those in Russian River Valley, although rainfall on the agricultural portions is somewhat less and the expense of supplying irrigation water greater. The successful growth of crops without water here as elsewhere in this division has diverted attention from the benefits of irrigation.

The main irrigable valley in Lake County is Big Valley, south of Lakeport. Storage on Kelsey Creek and the possible pumping from Clear Lake, if legally feasible, for the lands lying close to Clear Lake, must furnish the water supply. Cache Creek, which is the outlet of Clear Lake, and Putah Creek, which also rises in Lake County, are or will be utilized in Sacramento Valley and are therefore not part of the irrigation supply of this division.

There are few present uses of water in the northern coastal counties division adverse to irrigation, chiefly because but little use of the coast streams has yet been made. Due to lack of local development furnishing a market for power, the more available streams of the Sierra Nevada have rather been drawn on to supply the general market.

There is a total of 503,000 acres of valley agricultural land reported in this division, of which but 2,293 acres is now irrigated. Only the run off from Lake County can be used after leaving this division. Taken as a whole, the division, which has a total area of 12,700 square miles, and a normal precipitation of 25 to 90 inches, receives far more water than can ever be utilized. Eliminating Del Norte County and the immediate coast areas of Humboldt, Mendocino, Sonoma, and Marin counties, the area of irrigable agricultural land is substantially 380,000 acres. Probably not over 100,000 acres will ever be watered.

NORTH CENTRAL MOUNTAIN VALLEYS.

That portion of California between the northern end of Sacramento Valley and the Oregon line, and extending from the lava plateaus of Modoc and Lassen counties on the east to the coast counties of Humboldt and Del Norte on the west, comprise what is conveniently classified as the north central mountainous division of the State. Within this division are the counties of Siskiyou and Trinity, Shasta County above the junction of the Sacramento with the Pit, and a small portion of Lassen County included in Fall River Valley about Pittville. The northern half of the division, comprising Siskiyou County, and extending from Mt. Shasta and the Scott and Trinity mountains to Oregon, is within the Klamath drainage. Trinity County is almost wholly within the drainage of Trinity River, which in turn empties into the Klamath in northern Humboldt.

Speaking generally, this diviison is an intermountain region of relatively backward irrigation development. While scattered over four counties, the agricultural areas are mainly similar in conditions; they range in elevation from 2,000 to 4,000 feet, generally have a rainfall of less than 20 inches, are surrounded by forest or mining interests, and are devoted mainly to crops associated with stock-raising. The valleys, although already generally prosperous, are capable of a considerable advancement, but this must be conditional on a more modern irrigation system and less wasteful irrigation practice. While the need for irrigation is generally recognized and most of the water in immediate proximity to the irrigable land is claimed and supposedly put to use, yet that use is far less economical than would be required under a public irrigation policy that would look to the most complete utilization possible.

SUMMARY OF VALLEY AGRICULTURAL AND IRRIGATED AREAS.

The following tabular summary groups the northcentral mountain valleys by counties and gives the acreages of valley agricultural and irrigated land in each:

Summary of valley agricultural and irrigated areas in north central mountain valleys.

Area.	County or counties.	Valley agricultural land. Acres.	Areas irrigated. Acres.
Lower Klamath Lake	Siskiyou	23,000	4,600
Butte Valley	Siskiyou	65,000	2,800
Klamath River above Salmon River	Siskiyou	23,000	8,900
Shasta Valley	Siskiyou	158,000	23,800
Scott Valley	Siskiyou	55,500	15,500
Fall River Valley	Shasta and Lassen	66,000	24,700
Salmon River and tributaries	Siskiyou	600	600
Red Rock Valley	Siskiyou	11,000	0
Grass Lake	Siskiyou	4,400	0
Sisson Valley	Siskiyou	2,200	1,400
Burney and Goose valleys	Shasta	6,000	5,000
Cayton Valley	Shasta	1,700	1,300
Hat Creek	Shasta	4,500	3,000
Hay Fork and scattering	Trinity	8,000	6,355
Pit River and tributaries from McCloud River to Burney Creek	Shasta	1,700	1,700
Sacramento River above Pit River	Shasta	500	328
McCloud River, scattering	Shasta	900	900
Scattering		3,000	2,967
Totals		435,000	103,850

The most northerly agricultural areas in this division are those around Lower Klamath Lake, in Butte Valley, and along Klamath River and its small tributaries down as far as Salmon River.

LOWER KLAMATH LAKE DISTRICT.

This lies at a mean elevation of 4,200 feet along the Klamath Falls branch of the Southern Pacific Railroad near Dorris. Exclusive of uncropped marshes immediately bordering or forming part of Lower Klamath Lake, the agricultural area approximates 23,000 acres, of which 4,600 acres, chiefly in meadow, are reported irrigated, this acreage not including sub-irrigated marsh lands. The land in the district is mostly held in a few large stock ranches, with several small ranches along Sleepy Creek and on the better drained marsh lands. The normal annual precipitation is estimated as 15 inches. The principal water sources for irrigation are Willow and Cottonwood creeks, the former carrying 9.6 cubic feet per second at low stage in 1909; and gagings on the latter in the same year varying from 15.3 to 20.1 cubic feet per second.[1] Underground supplies are probably available along Lower Klamath Lake if pumping them becomes justified. Present irrigation is entirely by means of private ditches, use being wasteful. Twenty-seven thousand acres of Lower Klamath Lake marsh lands was originally included in the Klamath project of the United States Reclamation Service and for several years experiments have been conducted to determine the agricultural value of these lands. A preliminary report of these experiments[2] shows these lands to lack essential elements of fertility, to contain a sufficient quantity of black alkali, which can not be leached out by known methods, to render them unfit for crop production, and to possess such conditions of air drainage that low temperatures and killing frosts are likely to occur every month of the year.

BUTTE VALLEY.

With 65,000 acres of agricultural land and 2,800 acres of it reported irrigated, Butte Valley lies northeast from Shasta Valley on the Klamath Falls branch of the Southern Pacific Railroad, at an elevation of 4,200 feet. Only a relatively small portion of the valley is under cultivation. The soil is sandy in the southern and eastern parts and heavier in the vicinity of Butte Lake and in the valley floor north of Macdoel. Until recent years the valley has been used entirely for stock purposes, but subdivision into smaller holdings has been undertaken but not yet with marked result. The tributary watershed of 530 square miles is a combination of lava and desert hills and much of it is relatively flat, near the valley being sparsely covered with juniper and other scrub growth, with pine and fir timber on the higher of the mountains and in the valley at the southern end. The present chief water sources for irrigation are Praether and Butte creeks, both of which are small and sink before reaching the lake. While much of the soil of the valley is well adapted to agricultural growth, liability to summer frosts limits the crops that can be grown and the possible range of production is not yet worked out, although it is certain to be made up of the hardier strains of grains and forage and of such other crops as will stand low temperatures during the growing season. Some slight increase in the irrigated area will come from the better use of the small streams entering from the south, but if any extensive area is irrigated it would appear that the water supply must come from underground sources, which are as yet not understood. The ground water through the valley generally stands from 4 to 10 feet below the surface, but wherever water has been found underground sufficient for purposes of irrigation it has come from wells that tap the gravel strata between strata of blue clay of varying thickness and lying at depths of 100 feet, more or less. Attempts to obtain artesian supply have not thus far been successful. A considerable area in the trough of the valley is covered by an alkaline marsh, known as Butte Lake, and land immediately adjacent thereto is of little agricultural value.

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[1] U. S. Geol. Survey Water Supply Paper No. 271.
[2] U. S. Dept. Agr., Bureau Plant Industry Circ. 88.

KLAMATH RIVER AREAS.

West of the Klamath Lake district and also mostly immediately south of the Oregon line lie the scattered areas along Klamath River and smaller tributaries, the largest and most accessible and therefore the most important being near the Southern Pacific Railroad in the general neighborhood of Hornbrook. The elevation of these areas from the mouth of Salmon River, in southeastern Siskiyou County, to the Oregon line varies from 1,800 to 3,000 feet. Above the mouth of Shasta River the aggregate of the areas approximates 20,000 acres, of which 5,500 acres are irrigated, distributed as follows: Klamath River, 2,800 acres; Little Bogus Creek, 100 acres; Big Bogus Creek, 1,100 acres; Camp Creek, 60 acres. There is always likely to be water enough in Klamath River for pumping to the small areas, but pumping is not feasible in all cases. For the tributary creeks no gagings are available, but assuming the rate of run-off per square mile as on Klamath River above Keno, for which gagings are available,[1] sufficient, or more than sufficient, water is available, with storage, to irrigate all available land except on Little Bogus Creek. At present, one small coöperative ditch irrigates about 500 acres near Hornbrook; land along the tributary creeks is irrigated by small private ditches, and along Klamath River mainly by current wheels. The present low-water flow of the creeks is mostly utilized and further irrigation development on them must come through storage, by pumping from underflow, if found feasible, or from Klamath River, or by gravity diversion from the upper Klamath to lands along Bogus and Willow creeks. Below the mouth of Shasta River the aggregate agricultural area is only 3,100 acres, lying in pockets of 10 to 300 acres along Klamath River and Humbug, Parkhouse, Daggett, Beaver, Seiad, Indian, Camp, Horse, and McKinny creeks, with all of it irrigated. Owing to the lack of additional valley land here and the remoteness of the areas from lines of travel, little if any additional development under irrigation can be looked for below the Shasta.

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[1] U. S. Geol. Survey, Water Supply Paper No. 300.

At present the most important valleys in this division are Shasta Valley, Scott Valley, and Fall River Valley.

SHASTA VALLEY.

Including the local valleys about Yreka and Little Shasta, Shasta Valley comprises an area of 158,000 acres of agricultural land lying along the San Francisco-Portland branch of the Southern Pacific Railroad a few miles south of the Oregon line. The mean elevation of the valley is approximately 2,650 feet and the principal towns are Yreka, Montague, Little Shasta, Gazelle, and Edgewood. The valley floor is considerably broken by buttes, one line cutting off Yreka on the west, another cutting off Little Shasta Valley on the east, and an indefinite number lying scattered south of Little Shasta. Southeast of Little Shasta junipers and lava cover approximately 80 square miles of the valley floor and of this less than one half is roughly estimated as cultivable. A further break occurs east of Gazelle, where a considerable area is swamp. Otherwise than as above, however, the valley floor is comparatively flat and of good agricultural value, and all growing cultivated or native crops. The present irrigation water supply of the valley comes from numerous sources which unite to form Shasta and Little Shasta rivers. The most important of these sources are living springs of almost constant flow, the largest of which, known as Big Spring, discharging a minimum approximating 125 cubic feet per second, with all of them together discharging approximately 150 cubic feet per second. The main Shasta heads in three branches in the Eddy Mountains near Edgewood, and is joined in the upper portion of the valley by Boles, Beaugham, Jackson, Carrick, Willow, Julian, and Yuba creeks, none of these supplying large summer flow, and nearly all of what they do supply being diverted for irrigation prior to reaching Shasta River. Big Spring enters Shasta River below these tributaries, and furnishes practically the entire flow during the late summer. Little Spring, 2 miles west, discharging 8 to 9 cubic feet per second, would also enter Shasta River in the same vicinity were it not all diverted into three ditches for irrigation. Little Shasta River, which, with the springs feeding or adjacent to it, furnishes the main additional water supply of the valley, enters the main Shasta a short distance south of Montague. The springs of Little Shasta Valley are more numerous than along the main Shasta, the largest being Cleland Spring, with a constant flow of about 13 cubic feet per second. Others are Bassey Branch and Martin Springs, each with approximate discharge of 3.5 cubic feet per second. Isolated gagings only are available for Shasta River, the largest measured flow having been made four miles northeast of Yreka on June 26, 1907, when an hydrographer of the United States Geological Survey found 250 cubic feet per second.[1] Gagings made by the Irrigation investigations in 1911 for the Geological Survey one mile south of Montague showed 101.91 cubic feet per second. at probable low water, on August 24, and 157.35 cubic feet per second, on October 25. No gagings for Little Shasta River are available other than one made by the Irrigation Investigations August 21, 1911, when the flow was 7.24 cubic feet per second 1.5 miles northeast of Little Shasta post office, this being considered by local residents as slightly above the minimum flow. Of the flow of the other tributaries of Shasta River nothing is known other than that it is wholly used in irrigation during the low-water months and that considerable volumes of water are carried at other seasons. No reservoir sites tributary to Shasta Valley are known to have been surveyed. Power development near the mouth of Shasta River controls part of the flow, but conservative estimates of possible run-off from the tributary drainage indicate that, if stored, water is at hand for the irrigation of a considerably larger area than now receives water. Underground water is available in some parts of the valley, particularly in the vicinity of Big Spring, where some pumping development already exists, and probably also along the bed of Shasta River. In both Shasta and Little Shasta valleys, considerable areas are in urgent need of drainage. The water supply most generally counted on for increasing the irrigated areas in Shasta and Little Shasta valleys is Klamath River, to be diverted above Shovel Creek in general accordance with reconnaissance surveys of the Reclamation Service in 1904–5. By these surveys 65,600 acres was found to be irrigable from Klamath River and 5,000 acres irrigable from Little Shasta River and adjacent springs.[1]

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[1] U. S. Geol. Survey, Water Supply Paper No. 251.

Owing to the fact that land holdings in Shasta Valley are large, future irrigation development will largely depend on comparatively few interests. At present irrigation is mainly confined to meadows and alfalfa. With the exception of one small coöperative ditch in Little Shasta Valley, watering 1,550 acres, and Yreka ditch near Gazelle and Edgewood, which although privately owned waters a number of farms in satisfaction of old rights, irrigation in Shasta Valley is accomplished by a large number of small private ditches.

Owing to uncertainty as to possibilities of storage tributary to Shasta Valley or as to the final feasibility of bringing water from the Klamath, it is difficult to estimate the ultimate irrigation possibilities of the area. There seems little doubt, however, that the present irrigated area can eventually be nearly trebled, the underground sources and possible stoppage of present waste together probably being sufficient for doubling the acreage now watered.

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[1] U. S. Reclamation Service, Fourth Annual Report.

SCOTT VALLEY.

Next to Shasta Valley, this is the most important agricultural section in Siskiyou County. It lies between mountains 4,000 to 8,000 feet high, with a mean elevation approximately the same as that of Shasta Valley, and a total area of 55,500 acres. The agricultural land consists principally of bottom land adjacent to Scott River and bottom land lying in narrow strips along the streams tributary to it. Excluding swamps, all of the valley floor is irrigable, with 16,300 acres now irrigated. The latter area is largely watered by the creeks entering the valley from the south and west, rather than by the main Scott River.

Although 20 miles from the nearest railroad, Scott Valley has reached a considerable development. While tributary mines, especially along Salmon River, are of industrial importance to the valley, it is itself devoted mainly to dairying and stock raising, with grain growing on the higher dry lands. Because of its isolated position the valley is very largely self-sustaining agriculturally and therefore generally prosperous. Irrigation enterprise consists in one coöperative system—Farmers Ditch Company—and numerous private ditches. In addition, one or two pumping plants have recently been installed to water some of the land on the east side of the valley, with others contemplated. The ditches from the west-side creeks are mostly short and cover land riparian to and on both sides of the creeks at their entrance to the valley. Including 2,700 acres of swamp land in the trough of the valley, there are some 8,500 acres that need drainage and to cover which a levee and drainage district has been proposed, but not yet organized. Land holdings in the valley average over 250 acres, with many over 400 acres. The use of irrigation water is as a rule extravagant. Under Farmers Ditch the assumed duty is 1.5 inches per acre, or about 1 cubic foot per second to 33 acres. As in other stock-raising and dairying sections of northern California, the crops grown are meadow hay, alfalfa, and grain, the latter very largely oats. At one time a number of orchards were planted in the valley. Now, however, practically no fruit is grown commercially.

The water supply of Scott Valley is limited chiefly to Scott River and the tributaries entering from the south and west, the upper watersheds of which are high and snow-covered in winter. Very little water comes from the east-side range. Of the 711 square miles of drainage tributary to the valley, 243 square miles forms the area above and including that of Clark Creek. No measured rainfall or stream data are available, but the rainfall is sufficient and the drainage of such a character to indicate clearly that there is ample water at hand in the course of the year's flow to irrigate the entire valley if it could be conserved. At present the low-water flow is all utilized.

FALL RIVER VALLEY.

Although the most isolated of the larger northcentral mountain valleys, this is one of the most important of the agricultural areas in this division and second only to Shasta Valley. It is located along Pit and Fall rivers at an elevation of 3,400 feet in northeastern Shasta County, with approximately 10,000 acres along Pit River in western Lassen County that is properly classed with it. Being 85 miles distant by wagon road from Redding and 20 miles from the nearest railroad, at Bartle, the valley lies so far away from usual paths of travel that its exceptional irrigation resources are far less developed than customary even in the northern mountain areas. The area of the valley is taken as 66,000 acres, of which 24,700 acres is reported irrigated. Of the latter, about 17,500 acres are in one holding, whose irrigation has been accomplished by reclamation of Tule Lake and the utilization of water drained from the adjacent swamp, with the remainder chiefly immediately along Pit River about Pittville, McArthur, and Fall River Mills. The irrigated crops are clover, timothy, and alfalfa. Much of the valley, however, is devoted to dry grain farming, but this having been practiced for many years and the normal rainfall approximating only about 20 inches, it is not now generally profitable. The local water supply is relatively the largest during the irrigation season of any important area in northern California, Fall River originating in the valley in two springs whose measured discharge at Fall River Mills was found to be 1,510 cubic feet per second in September, 1903, when supposedly constant.[1] In addition, Pit River passes through the southern portion of the valley and with storage above, if that were necessary, could be made to furnish an irrigation supply here, and Beaver Creek, with a small supply, enters the Pit near Pittville. There can be no question therefore of the availability of a water supply for the entire valley and that it can all be classed as irrigable. Power development will eventually complicate the use of water for irrigation, but although this is projected and filings have been made for it on Fall River, utilization has not yet been effected. Further irrigation development will be by pumping as well as by gravity, Fall River being so situated with reference to the adjacent irrigable lands as to make pumping both economical and desirable and to assure its employment on a considerable scale when hydroelectric power is at hand.

SALMON RIVER AND TRIBUTARIES.

An area of 574 acres of irrigated land, which probably includes all of the agricultural land, is reported along Salmon River and its forks and Black Bear, Taylor, and Crawford creeks, in Siskiyou County. This land is similar to that along the main Klamath. The Salmon River section being a mining district, like the lower Klamath section, the small areas that can be farmed are, because of their scarcity, of considerable local value, but still of little general importance. Communication with this district from the east is usually by way of Etna Mills.

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[1] U. S. Geol. Survey, Water Supply and Irrigation Paper No. 134.

RED ROCK VALLEY.

This is a flat to rolling valley 4,400 feet high lying 12 miles east of Butte Valley and covering an area of about 11,000 acres. The precipitation here is probably about the same as that in Butte Valley. Although the soil seems well suited for agriculture, information at hand discloses no water available for its irrigation. No streams enter the valley, and the only known possible source of water will be wells, of which none have been found sunk for irrigation purposes.

GRASS LAKE.

This valley is 10 miles east of Shasta Valley and comprises a swamp area of 4,400 acres lying at an elevation of 5,100 feet. It is entirely devoted to wild native grass and no land is irrigated. The only water supply available is from springs and underground sources. The valley is of no agricultural consequence without drainage. By draining this area, water could probably be developed for lower lands, of which there are about 520 acres in the neighborhood of Sheep Rock, now farmed dry.

SISSON VALLEY.

This is a small mountain valley situated about Sisson, directly under Mt. Shasta at an elevation of 3,400 feet, of which 2,200 acres are cleared, with an indefinite additional area that may later be cleared and irrigated. The chief crops grown are meadow hay, vegetables, and hardy fruits, the meadow hay the main irrigated crop, the irrigated acreage of which is 1,400 acres. The normal annual precipitation here being nearly 40 inches, little irrigation is needed for cultivated crops. Springs and artesian flow are of frequent occurrence, Big Spring, at the north end of the valley, furnishing the main supply to the numerous small ditches present. At present most of the good land is under cultivation. Local capital is concerned in a proposed project for clearing more of the land now wooded and irrigating it from the upper Sacramento.

BURNEY AND GOOSE VALLEYS.

These lie tributary to Pit River southwest of Fall River Valley. Of an aggregate of 6,000 acres of land in them, 5,000 acres in timothy, clover, and alfalfa are irrigated. With more economical use the tributary drainage of 136 square miles would supply sufficient run-off for irrigating all of the land. The used water supply comes from Goose and Burney creeks. The water sinks about 4 miles below Burney Creek and does not rise again until it has passed below the agricultural land. Goose Valley was formerly a swamp and known as Goose Lake, but it has been reclaimed both by intercepting the inflow and by drainage. Except in the Goose Lake area, irrigation methods are reported crude.

CAYTON VALLEY.

This small area of 1,700 acres, of which 1,300 acres are irrigated, lies west of Fall River Valley, along Cayton and Clark creeks, at an elevation of 3,600 feet. The drainage area consists of 15 square miles of steep lava hills and the two small creeks should furnish enough additional water for the small unirrigated area.

HAT CREEK AREA.

This consists of approximately 4,500 acres of valley land scattered in pockets for 25 miles along Hat Creek, a tributary of the Pit 10 miles below Fall River. The elevation of the agricultural lands varies from 3,000 to 4,000 feet and the irrigated area is reported as 3,000 acres. The tributary drainage area is 425 square miles and the run-off from this is sufficient to irrigate all of the agricultural land present, although no discharge gagings are available to indicate the character of the stream flow. When the section was visited litigation was under way that sought to establish the right of a power company to divert Hat Creek into Cow Creek for power purposes. Owing to the small size of the scattered areas here, but little irrigation increase is to be expected.

SACRAMENTO RIVER NORTH OF PIT RIVER.

Physical conditions along Sacramento River north of the Pit make irrigation of little importance. The irrigation census of 1909 reported only 328 acres irrigated here, and the absence of much additional agricultural land will prevent any increase of consequence. The land now watered is in pockets of 5 to 20 acres each lying along the creeks in the hills.

TRINITY COUNTY AREAS.

Trinity County is almost wholly mountainous, with only 8,000 acres the approximate aggregate area of valley agricultural land. The largest agricultural areas are on Hay Fork of Trinity River, the others being scattered along the main Trinity and East and Stewart's forks, and Weaver Creek. The irrigated holdings are all small and irrigation practice is more or less primitive, consisting mainly of the flooding of small mountain meadows and gardens. Of 178 irrigators reported in the irrigation census of 1909, only 10 watered holdings of over 100 acres. The total irrigated area reported in the county was 6,355 acres, and as the total area of agricultural land is but little in excess of that, but little increase is possible. There is much land in the county at present timbered that may some time become agricultural and therefore irrigated, but this is not considered likely for some years. It is significant that in the irrigation census of 1909 the irrigators reported the present irrigated area as constituting in the aggregate 67 per cent of the area they ultimately expected to water.

PIT RIVER BETWEEN BURNEY CREEK AND McCLOUD RIVER.

Approximately 1,700 acres of irrigated land was found scattered in small pockets of meadows and gardens along Pit River and Rock, Nelson, Kosk, Hatchet, Montgomery, and Squaw creeks. While an additional area may ultimately be irrigated it will first need clearing and this is not likely to be undertaken at present. For the land now watered, the supply is sufficient except for summer scarcity on some of the creeks.

SUMMARY.

Recapitulating the data given above as to the irrigation resources of the northcentral mountain valleys, it is found that approximately 435,000 acres are valley agricultural land with approximately 104,000 acres of this now irrigated. Lack of stream gagings prevents a satisfactory estimate of the total quantity of water available for irrigation but this can be approximated for the purposes of this report on the basis of the acreage now irrigated and that which it is estimated can be irrigated in the future. If present wasteful use were to continue, there would be little opportunity outside of Fall River Valley and along the Klamath for increasing the irrigated area from supplies now immediately at hand. But as irrigators better understand the injury resulting from too much water, as they substitute for meadows alfalfa and other crops normally requiring less water than meadows, and as some way is worked out by the State that will facilitate the use of the water that is not now used at all, the present irrigated area should be nearly doubled without much storage or without carrying supplies from relatively distant sources, as from Klamath River to Shasta Valley. Assuming a duty of 1.5 acre-feet per acre per year, and also that some storage and some long-distance conveyance will be found feasible and be carried out, it is believed that the present irrigated area will eventually be increased to from 225,000 to 250,000 acres, or to more than one half of the total area of valley agricultural land found. Using the larger of the two limits and the annual duty of 1.5 acre-feet per acre assumed as eventually practicable would require 375,000 acre-feet of water annually. After analyzing the data that have been collected, there can be little doubt that such a quantity is economically available to the valley agricultural lands of this irrigation division of California.

NORTHEASTERN PLATEAUS AND VALLEYS.

The larger part of this division or irrigation zone lies in the Great Basin drainage and is all within Modoc and Lassen counties. It mostly ranges in elevation from 4,000 to 5,000 feet, with normal average rainfall on the agricultural areas usually ranging between 14 and 22 inches. Chiefly lying east of the main crest of the Sierra Nevadas, its agricultural characteristics more resemble those of northwestern Nevada than those of interior California. Although such hardy fruits as apples are successfully grown in the more favored valleys where marketing conditions warrant, the climatic conditions of a high intermountain country make the agriculture essentially characteristic of the live stock industry. Irrigation is, therefore, largely that of the meadow or the alfalfa field.

Of a total land surface of 5,662,080 acres, the tabular summary shows 867,000 acres of plateau or valley agricultural land topographically irrigable, with 161,930 acres irrigated. Portions of Modoc and Lassen counties have long been prosperous agricultural communities, but recent transportation improvements have started a considerable increased development.

SUMMARY OF VALLEY AGRICULTURAL AND IRRIGATED AREAS.

The following table gives the valley agricultural and irrigated areas in the northeastern divisions of the State:

Summary of valley agricultural and irrigated areas in northeastern lava plateau region, comprising Modoc and Lassen counties.

Area.	County or counties.	Agricultural land. Acres.	Areas irrigated, Acres.
Surprise Valley	Modoc	113,000	35,200
Goose Lake Valley	Modoc	39,000	5,800
Fandango Creek	Modoc	1,300	200
North Fork Pit River	Modoc	2,300	2,300
Alturas and South Fork Pit River	Modoc	40,000	18,600
Rattlesnake Creek	Modoc	8,000	0
Lost River drainage	Modoc	47,000	2,900
Fairchild Meadow and Antelope Plains	Modoc	25,000	1,300
Ingalls Valley	Modoc	700	0
Warm Spring Valley	Modoc	32,000	2,050
Black Canyon	Modoc	1,200	500
Stone Coal Valley	Modoc	1,000	500
Round Valley	Modoc	6,000	1,200
Big Valley	Modoc and Lassen	83,000	14,500
Ash Creek Valley	Lassen	6,500	4,000
West Valley	Modoc and Lassen	1,200	1,200
Jess Valley	Modoc	4,500	3,400
Little Valley	Modoc and Lassen	900	900
Dixie Valley	Modoc and Lassen	2,900	1,200
Madeline Plains	Lassen	153,000	3,900
Dry Valley	Lassen	3,000	0
Grasshopper Valley	Lassen	6,300	1,900
Painters Flat	Lassen	2,000	0
Snake and Rush creeks	Lassen	4,700	600
Secret Valley	Lassen	19,000	1,280
Bull Creek	Lassen	2,700	0
Horse Lake	Lassen	5,400	2,600
Eagle Lake	Lassen	1,700	200
Willow Creek	Lassen	13,900	7,100
Susan River	Lassen	66,000	22,300
Honey Lake Valley	Lassen	154,000	12,200
Long Valley	Lassen	9,300	4,100
Scattering, unlocated		10,500	10,000
Totals		867,000	161,930

Beginning with the north, the largest or agriculturally most important areas are Surprise Valley, Goose Lake Valley, Alturas, Warm Springs Valley, Big Valley, Madeline Plains, and Honey Lake Valley.

SURPRISE VALLEY.

Surprise Valley, lying in the extreme northeastern corner of California at an elevation of 4,800 feet, although 25 miles from railroad transportation, is a well settled community under relatively high irrigation development. While irrigation is thus far entirely by small private ditches, with spring use more or less wasteful, the necessity for water, its general scarcity, and its consequent high crop-producing value, have compelled better use than in most other parts of the division. About 60 per cent. of the grain raised is irrigated, as is the alfalfa not cut for seed, and the family orchards and gardens, only the two latter receiving much water in the summer. The irrigation water supply of Surprise Valley is limited to a number of short, small streams flowing from the steep eastern slopes of Warner Mountains, some artesian flow in the valley floor and such run-off as can be collected into Cowhead Lake Reservoir from 170 square miles of mostly untimbered, sagebrush watershed in California and Nevada.[1] Aside from fuller spring use of the small creeks from Warner Mountains, such individual local storage from them as is found feasible, and the possible increased use of artesian flow, the proposed development of Cowhead Lake for irrigating lands on the east side of the valley furnishes the only opportunity for watering the 77,800 acres in the valley still unirrigated.

GOOSE LAKE VALLEY.

Goose Lake Valley, with a mean elevation of 4,900 feet, lies partly in Oregon but contains 39,000 acres of fine valley agricultural land in California, with 5,800 acres now irrigated. This land immediately joins Goose Lake and because of its topography and proximity to the lake is favorably located agriculturally. Present irrigation is by small private ditches from seven small creeks flowing from Warner Mountains, and having estimated low-flow discharges of 2 to 3 cubic feet per second each. With better use of the supply from these creeks and storage where feasible, as it might be made on Fandango Creek, where a known site would furnish water for at least 2,000 acres, considerably more land in this valley might be irrigated by gravity than receives water now. A questionable source of supply is Goose Lake, by pumping. One analysis of the water of the lake made by Prof. G. E. Colby of the University of California indicates the presence of considerable quantities of injurious alkali.

FANDANGO CREEK AREA.

This small area is along Fandango Creek, a tributary of Goose Lake on its east side. The elevation of the area is 5,100 feet and the drainage area 17 square miles. At present 200 acres are in hay crops irrigated. It would seem as if the chief worth of the area would be for storage as its agricultural value is not high.

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[1] The normal rainfall at Fort Bidwell is 20.13 inches.

ALTURAS AREA.

The uplands about Alturas differ from Surprise and Goose Lake valleys in that they form no definite or continuous valley areas, the irrigable and irrigated lands not being confined to bottoms. The economic limits of the irrigable lands are therefore difficult to determine with exactness in the absence of definite high-line surveys or of exact knowledge as to the ultimate assembling of the water supplies. North of Alturas, along North Fork of Pit River, all of the readily available land, amounting to about 2,300 acres, is now irrigated. A small area is also irrigated on Parker Creek, which enters the Pit above Alturas. Both the largest irrigable and the largest irrigated areas tributary to Alturas, however, extend along South Fork of Pit River some 20 miles south of the town, although both northwest and southwest of Auturas are sagebrush benches of considerable size that will eventually be watered. Of 40,000 acres of irrigable land about Alturas, 13,000 acres are in a single holding along South Fork of the Pit, this area having been reclaimed from a swamp condition by two drainage canals 30 and 12 miles long, respectively, the former also serving to supply irrigation water when and where needed. Including the flooded meadows, 18,600 acres were reported irrigated about Alturas in 1911.

RATTLESNAKE CREEK AREA.

This is an undeveloped area of roughly 8,000 acres lying at an elevation of 5,000 feet 8 miles north of Alturas. A flat tributary drainage area of about 50 square miles would supply some water for irrigation here if storage were available, but none is known. The drainage is of low water-yield, however, and the area itself is agriculturally not important. Any water supply that would be yielded would be light and variable.

LOST RIVER DRAINAGE.

Extending north from Pit River to the Oregon line and lying between Tule and Goose lakes is an uneven plateau country that forms Lost River drainage and lies at elevations varying from 4,000 to 5,000 feet high. In all there is roughly estimated to be 47,000 acres of agricultural land. Of this 700 acres of bottom land along Willow Creek, 1,500 acres in Steele swamp, and 700 acres in Boles Meadow, a total of 2,900 acres, are crudely irrigated. The water supplies tributary to the area are mainly Lost River and tributaries, including North Fork, South Fork, and Fletcher, Beaver, Bottle, and Rock creeks. The United States Reclamation Service has built a dam below Clear Lake in connection with their Klamath project which will store the water heretofore draining to Lost River. The original plan of the Reclamation Service was to irrigate 35,000 acres in California along the east side of Tule Lake by the use of Clear Lake storage, but owing to excessive cost this portion of the project has been deferred. Their plans also involve the reclamation of 27,000 acres of Tule Lake, by evaporation and stopping of the inflow through Lost River.

FAIRCHILD MEADOW AND ANTELOPE PLAINS.

Another high plateau section, with, roughly, 25,000 acres of agricultural land, lies 15 miles northwest of Alturas, comprising Fairchild Meadows and Antelope Plains. The elevation here is 5,000 feet. Fairchild Meadows is now a swamp and its drainage has been considered in connection with the irrigation of Boles Meadows on the north. The irrigation of Antelope Plains by the storage of torrential flow has also been considered. The drainage area of these two areas combined is of indefinite bounds but of about 150 to 200 square miles. The run-off yield is considered independable and development of consequence is said to be unlikely. Counting wild flooding, 1,300 acres are reported as now irrigated.

INGALLS VALLEY.

This is a small undeveloped area northeast of Alturas of the same character as Fairchild Meadow and of approximately equal high elevation. The only available water supply is also small, torrential, and unreliable. No land is now irrigated.

WARM SPRING VALLEY.

Warm Spring Valley, lying next below Alturas along the Pit, has a total area of approximately 32,000 acres, exclusive of the higher benches into which a portion of the valley merges. The area reported irrigated in 1911 was 2,050 acres, not including naturally flooded meadows. Aside from the use made of Pit River, irrigation water for land in this valley is obtained from Canyon Creek and from several small reservoirs, each of which supplies several hundred acres. No irrigation companies operate here. The total drainage tributary to this valley at its outlet is 1,560 square miles.

ROUND VALLEY.

Southwest from Warm Spring Valley, Round Valley lies on Ash and Rush creeks, both tributary to the Pit. Of 6,000 acres of irrigable valley land, 1,200 acres are now irrigated. The valley has a total drainage above Adin of 260 square miles. Stream-flow records maintained on Ash Creek during parts of 1904 and 1905 by the Geological Survey[1] showed a mean annual run-off of 98,500 acre-feet. A considerably smaller supply, with storage above feasible, of which some could be provided in Ash Creek Valley, would suffice for the complete supplemental irrigation of this valley, were the water available to be utilized at this place instead of, possibly, in Sacramento Valley.

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[1] U. S. Geol. Survey, Water Supply Papers 134, 177, 213, 251.

BIG VALLEY.

Big Valley, selected by the Reclamation Service as the best reservoir site on any of the Sacramento River tributaries, is situated but a few miles below Round Valley, Ash Creek entering the Pit within this area. The total area in the valley is 83,000 acres, of which 14,500 acres, including flooding from sloughs, was irrigated in 1911. The available water sources for irrigating this valley are Pit River, Ash Creek, and Willow Creek. Gagings at Pit River at the proposed dam site at the mouth of the canyon leading from Big Valley, which is below Ash and Willow creeks, showed a mean annual run-off from 1904 to 1908 of 733,000 acre feet.[1] Much of the valley is now swamp and needs drainage before irrigation, but if full agricultural development were attempted, the water supply available from Pit River at Canby and from Ash Creek at Adin give the best basis for estimates. The stream-flow figures for the former for a period 1904 and 1905 show a mean annual flow of 424,000 acre-feet and for the latter for the same period a mean flow of 98,500 acre-feet. With storage in one or more of the upper valleys, such as Round Valley or Warm Spring Valley, which is not likely for use in Big Valley, complete irrigation development of this area would be possible. Less complete development would follow storage in Grasshopper Valley, on Ash Creek, or taken in connection with storage in Jess and West valleys, to the exclusion of use in Warm Spring Valley or around Alturas, the entire area of Big Valley might be watered.

BLACK CANYON.

This is a small area of 1,200 acres adjacent to Warm Spring Valley. The water supply depends on the run-off from the plateau to the north. Part of this is at present stored and used to irrigate 500 acres.

STONE COAL VALLEY.

This area of approximately 1,000 acres, of which 500 acres are now irrigated, is situated 10 miles north of Big Valley. A drainage area of 15 square miles is said locally to furnish more than enough water until about June 1 to irrigate about one half of the valley. If storage is feasible, and with economical use, water is at hand for watering all of the valley.

ASH CREEK VALLEY.

This area of 6,500 acres is on upper Ash Creek 20 miles east of Bieber, at an elevation of 5,100 feet. Several large ranches cover the valley, with 4,000 acres of wild hay reported irrigated. With Ash Creek, Cottonwood Creek, and springs there is water present under more economical use for all the land. A small reservoir on Cottonwood Creek carries some of the flood waters of that stream over to late summer. The watershed tributary to Ash Creek Valley approximates 110 square miles.

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[1] U. S. Geol. Survey, Water Supply Papers 134, 177, 213, 251.

WEST VALLEY.

This area lies in a narrow strip along West Valley Creek, a tributary of South Fork of Pit River, 20 miles south of Alturas, at an elevation of 4,900 feet. The entire valley is in one ownership and all irrigated, the total area being 1,200 acres. This valley has been surveyed by the Reclamation Service[1] as a possible reservoir site, a 70-foot dam being estimated as capable of holding back 94,579 acre-feet. The average run-off at this site is not, however, sufficient to fill a reservoir as large as could be made here. The tributary watershed is 150 square miles.

JESS VALLEY.

This is also along a tributary of South Fork of Pit River, its area being 4,500 acres, of which 3,400 acres in alfalfa, wild hay, and grains is reported irrigated. The elevation of the agricultural land here is from 5,100 to 5,300 feet. Mill, East, and Harvey creeks, all perennial, furnish the water supply of the valley, these draining 91 square miles of elevated watershed and carrying an estimated combined minimum flow of 12 to 15 cubic feet per second. Surveys made by the Reclamation Service[1] show that a 60-foot dam in Jess Valley would give an impounding capacity of 224,560 acre-feet.

SUMMARY OF CONDITIONS ALONG UPPER PIT RIVER.

There are two main lines on which further irrigation development about Alturas and along Pit River both above and below Alturas might take place, and the future is likely to see results accomplished in some measure through a combination of these. The first involves a comprehensive scheme for the fullest possible utilization of all water sources available and the irrigation of the lands below them according to an orderly plan; the second involves the less economical but probably the more practicable development by the individual, community, or corporation, with each project wholly independent of any other. Whatever form development takes, it is bound to be intimately connected with irrigation in Sacramento Valley, because the Pit forms one of the important tributaries of the Sacramento.

Counting all agricultural areas along Pit River and main tributaries as far down as Big Valley, but omitting West and Jess valleys, because of their suitability for reservoirs, there are 163,300 acres. Assuming the possible ultimate use of Big and Round valleys as reservoirs for Sacramento Valley, 77,300 acres remain, of which 22,950 acres were reported watered in 1911, leaving about 54,000 acres still to be irrigated. This relatively small area should undoubtedly be brought under development. For this water could be made available from three main sources aside from the direct flow of Pit River, viz., Goose Lake, storage in West and Jess valleys, and smaller individual storage to which the topography of the country is well suited. In addition, pumping from underflow of the streams could be made to yield for lands not readily reached by gravity.

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[1] U. S. Reclamation Service, 5th Annual Report.

Because of the possible ultimate use of Big and Round valleys, as well as of Ash Creek Valley, as reservoirs in connection with Sacramento Valley irrigation, any consideration of the use in Modoc County of the waters of the upper Pit must carry the reservation of possible alternative use lower down. Generally speaking, the drainage of the upper Pit is composed of relatively flat and sparsely timbered volcanic hills. Quite careful water-supply investigations covering this drainage have been made by the Geological Survey and Reclamation Service in connection with the Sacramento Valley irrigation project at one time proposed by the Reclamation Service.[1] In these studies, the use of Goose Lake water has been an important feature. This lake has a surface area of 186 square miles and a tributary watershed of 1,250 square miles. By diverting into Pit River sufficient water of Goose Lake to reduce its surface area to 83 square miles, it was estimated that the evaporation of 260,000 acre-feet per annum could be prevented, and this supply partly used along the upper Pit but mostly stored in Big Valley Reservoir, where a smaller exposed surface would reduce the evaporation losses. Reasoning from an assumed annual rainfall on the lake of 15 inches and from an assumed annual evaporation from the lake surface of 47 inches, the mean annual run-off from Goose Lake watershed figures approximately 300 acre-feet per square mile, or at least enough for the irrigation of 100 acres per square mile of drainage. A diversion channel from Goose Lake into North Fork of Pit River would be necessary to make this water supply available, because Goose Lake does not now overflow into the Pit.

Aside from Goose Lake, West Valley and Jess Valley reservoir sites furnish the principal means of storage for the upper Pit areas. With dams at these sites 70 feet and 60 feet high, respectively, the Reclamation Service has figured a storage capacity of 224,560 acre-feet at the former site and of 94,579 acre-feet of the latter.[2] The drainage areas tributary to these sites are not large enough, however, to fill the reservoirs. Two years' run-off from Jess Valley gave an average annual yield for 1904 and 1905 of 55,000 acre-feet, but as 1904 was a year of more than average rainfall, an average annual yield of 45,000 acre-feet gives a safer basis for estimate. Measured run-off from West Valley for the same period suggests a safe average yield of 20,000 acre-feet per year from this source. This total possible storage above the agricultural lands along the upper Pit of 65,000 acre-feet should, if fully and conservatively utilized, and supplemented by smaller individual storage, amply supply irrigation to the entire available area during periods of deficient direct flow.

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[1] U. S. Reclamation Service, 5th Annual Report: address of J. B. Lippincott, supervising engineer, before Congressional Irrigation Committees at Red Bluff, June 15, 1905.

[2] U. S. Reclamation Service, 5th Annual Report.

LITTLE AND DIXIE VALLEYS.

These are two small areas on tributaries of Pit River below Big Valley. The former, on Horse Creek, has an elevation of 4,200 feet, and an area of 900 acres, all irrigated. Dixie Valley, also on Horse Creek, has an elevation of 4,300 feet and an area of 2,900 acres, nearly all of which is held in Indian allotments, with 1,200 acres irrigated. Important development is not likely in either of these small areas, although the tributary watershed should supply all of the water needed for full irrigation development.

MADELINE PLAINS.

Madeline Plains, which form the next large agricultural area south of Alturas, lie at an elevation of 5,400 feet, and embrace a total of 153,000 acres, of which 3,900 acres were irrigated in 1911. Being a high plateau and until recently without railway transportation, this area has not reached a very extensive development. Several stock ranches have included irrigated areas, but until recently no attempt has been made to obtain a water supply for the general irrigation of the plains. For several years, however, a land and irrigation company has been prosecuting plans for the irrigation of 40,000 acres in the northern portion of the area, largely completing their canal system of 1911. The main source of water for this 40,000 acres as now developed is Tule Reservoir, into which Cedar Creek, with a drainage area of about 50 square miles above this reservoir, has been diverted. An additional supply has been contemplated by diversion of water from the upper Pit River drainage. Another small creek on the Van Lone ranch is utilized for irrigating about 1,000 acres there. For the eastern portion of Madeline Plains, the only stream sources are Red Rock, Painter, and Buckhorn creeks. Although these streams are snow-fed they are torrential and require storage for use. No gagings of value are available for any of the streams tributary to Madeline Plains. The four creeks named supply the main drainage, with a combined watershed of 217 square miles. If the normal annual rainfall on this watershed were 15 inches, and 20 per cent of this were collected in reservoirs and made available for irrigation, the total supply would be 54,250 acre-feet per annum, or very much less than enough to irrigate the entire Madeline Plains.[1]

DRY VALLEY.

This area of about 3,000 acres lies southwest of Madeline Plains at an elevation of 5,500 feet. No land is irrigated and the only water that enters the valley is torrential and comes in at the north end and sinks before becoming available for use. About 10 square miles of watershed might supply water for approximately 500 acres if storage were feasible, but no such development seems possible.

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[1] Records of the Geological Survey for 1904 and 1905, as given in Water Supply Papers 134 and 137, show that West Valley Creek, adjacent to Cedar Creek, had a mean measured run-off of 3 inches in depth over the entire area of watershed. Ash Creek, at Adin, 30 miles west, and with a watershed of 260 square miles, gave a measured run-off of 7 inches in depth.

GRASSHOPPER VALLEY.

This area of 6,300 acres also lies southwest of Madeline Plains, with an elevation about 300 feet lower than Dry Valley. About 1,900 acres in wild hay, timothy hay, and grains are now irrigated from two small spring-fed creeks and several small reservoirs. The south end of the valley is a lake which covers about 3,500 acres at times of high water and about 1,500 acres at times of low water, the 2,000 acres of overflow land being cut for hay when the lake recedes. All of the valley, excepting 600 acres, is held in one ranch. Storage in additional small reservoirs or pumping, if underground water is present, will be necesary for increasing the irrigated area.

PAINTERS FLAT.

This small area of 2,000 acres lies along the California-Nevada line southeast of Madeline Plains. It is now used for grazing and as no water supply seems to be at hand for use in irrigation, the area is of no irrigation importance.

SNAKE CREEK AND RUSH CREEK AREAS.

These two areas, aggregating 4,700 acres, border small streams rising in California and draining into Nevada. All of the valley land along Snake Creek, or about 600 acres, is irrigated from springs. Rush Creek is torrential and but little land along it is cultivated. The drainage tributary to this creek approximates 40 square miles of bare hills of low run-off yield, and little irrigation is likely here.

HONEY LAKE VALLEY.

Including Susan River Valley, Willow Creek Valley, Long Valley, and the areas about Honey Lake and along the minor streams draining into it, Honey Lake Valley constitutes the largest and most readily accessible aricultural area in northeastern California. Probably no area of equal importance in California has been more adversely affected by lack of public regulation of water resources. The total area of the valley is substantially 243,000 acres, of which 45,700 acres, including the naturally overflowed and crudely flooded areas, was found to be irrigated in 1911. While a large area of agricultural land lies northeast of Honey Lake, the great bulk of the valley is southeast of the lake and farthest from any water sources other than such as can be found underground. Irrigation has been practiced in this valley for many years and there are numerous canals and ditches leading from Susan River, Willow Creek, and the other streams entering the valley. Aside from one company system from Susan River and two small coöperative associations that have installed pumping plants on Honey Lake, irrigation is effected wholly by individual or small partnership enterprise. The highest irrigation development is along Susan River east of Susanville, although even there use is exceedingly wasteful. Farther down, in the Susan River delta, it is little more than the annual submerging of wild grass meadows, under practices perhaps satisfactory to the irrigators themselves and carried on under authority of numerous court decisions, yet which are criminally uneconomic from the point of view of the full development of the entire valley. The only important storage at present used on Susan River is in connection with the principal irrigation company of the valley, which uses McCoy Flat and Hog Flat reservoirs, tributary to Susan River above Susanville, and Lake Leavitt, an artificial reservoir in the valley below Susanville.

In estimating the water resources available for possible increased irrigation in Honey Lake Valley, first place must be given to Susan River. According to scattering records at Susanville kept by the Geological Survey from 1901 to 1905[1] the estimated mean annual run-off of this stream is substantially 102,000 acre-feet. Based on private unpublished reports of several engineers and data gathered by this office, Willow Creek, Petes Creek, Horse Lake, Secret Valley drainage, Long Valley Creek, and the smaller streams of Honey Lake Valley proper, probably yield in mean years 111,000 acre-feet additional, making a total mean run-off for the valley of 213,000 acre-feet. Additional yields have been estimated by some from Eagle, Caribou, Silver, and Feather lakes, but these are not included in the above total. Estimates of the total water-crop have from time to time been made on the basis of evaporation from Honey Lake at an assumed rate of 3.5 feet per annum over a surface of 60,000 acres, giving a total of 210,000 acre-feet. Whatever the actual run-off of the valley, it can not all be stored or used economically in direct flow. Full storage is not probable on Long Valley Creek or on the small streams entering the main valley. Assuming that a part of the flow of Susan River can be diverted into and stored in Eagle Lake, which is the largest natural reservoir site in the valley,[2] and counting that what cannot be held in the upper reservoirs can be stored in Lake Leavitt, full storage should be feasible on this stream. Round Valley, or Willow Creek, and Horse Lake, on Petes Creek, have been figured to store most of the flow of these two streams not used in direct irrigation. Some of the run-off from Secret Valley and Ball Canyon Creek can also undoubtedly be stored. Analyzing these various probable storages in connection with the figures of estimated run-off already given, and figuring on a mixed duty of 1.5 acre-feet per acre under direct use and 2 acre-feet per acre under storage, the probable practical irrigation development in this valley from surface sources is not over 117,500 acres, of which, including Secret Valley, 47,000 acres were receiving water in 1911. The possibilities of irrigation by pumping in this valley are problematical. As already stated, two pumping plants are taking water direct from Honey Lake for irrigation purposes, and a number of irrigation wells have been sunk in the large area southeast of Honey Lake. While there will always be ample water in Honey Lake, its value for irrigation is likely to be small because of the excessive amounts of salts present. Salts in considerable quantities are also carried in some of the well waters, and each well sunk must be tested for quality as well as for quantity before its value can be determined.[1]

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[1] U. S. Geol. Survey Water Supply Papers 134 and 177.

[2] Many have believed that Eagle Lake could be made to water all of Honey Lake Valley and a tunnel was partly completed to tap it. Evaporation, however, has generally taken care of the entire run-off into it, except that 5,000 to 7,500 acre-feet are found to seep annually from the late to feed springs at the head of Willow Creek. During recent years the surface of Eagle Lake has raised slightly. The best that the more conservative estimates have allowed for the lake is to furnish a supplemental supply in years of unusual drought.

SUMMARY.

Recapitulating the irrigation resources of this division of California, the following facts seem clear: There is a total of 866,500 acres of agricultural land reported that is topographically suited for irrigation, with 161,850 acres reported irrigated in 1911, the summer flow of the streams being quite largely diverted and some water stored. Both increased economy in present use, that is in some instances exceedingly wasteful, and additional storage will result in an increased irrigation development, its extent dependent on the water supplies available to the various areas. What these supplies are and something of their character are stated in the tabular summary. Some stream records are available and estimates of the mean annual flow can be approximated in others. For the Great Basin area, including surprise Valley, Madeline Plains, and Honey Lake Basin, 400,000 acre-feet is believed to be a fair figure for the total water crop that might be utilized. For the Pit River drainage down to and including Big Valley, 730,000 is the mean measured run-off. If the area of Goose Lake were reduced as at one time proposed by the Reclamation Service and evaporation of a large quantity of water thereby lessened, and if Lost River drainage waters in California were utilized in California, which is not likely, the total mean available yield in this division outside of the Great Basin drainage might safely be estimated at 1,000,000 acre-feet per annum. If these large water-yields were available over this entire division as land is at hand on which it might be used, a large part of the 866,300 acres of irrigable agricultural land might be watered. Considering conditions of land and water as they are, however, and assuming for this purpose that both Big Valley and Round Valley will be fully developed agriculturally rather than as reservoirs for Sacramento Valley, it is believed that doubling the present irrigated area of 161,850 in this division will at least be the maximum development that will be reached. If Big Valley and Round Valley are utilized as reservoirs for Sacramento this total should be decreased by 80,000 acres.

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[1] In July, 1912, samples of water from Honey Lake and 7 wells southeast of it were analyzed to determine their suitability for irrigation purposes by Prof. Geo. E. Colby, of the California Agricultural Experiment Station. The water from 2 of these wells was reported by Professor Colby as "excellent" for irrigation, that from 3 was reported "suitable," that from 1 "unsuitable." and that from 1 of such quality as "might answer for irrigation on well-drained land." The water analyzed from Honey Lake showed 11.03 pounds of corrosive alkali per 1,000 gallons of water, or enough to deposit 1.8 tons with each acre-foot of water applied. Analysis of water taken from this lake in December, 1909, and May, 1911, showed 5.90 and 7.10 pounds of corrosive alkali, respectively, per 1,000 gallons of water.

FEATHER RIVER VALLEYS.

West of the crest of the Sierra Nevada in northern California are a number of high mountain valleys of considerable importance both locally and in the aggregate. These lie north of the overland route of the Southern Pacific Railroad and generally along or tributary to the Western Pacific Railway in Plumas and Sierra counties. The elevations of these valleys vary from 3,400 to 5,800 feet. They are therefore all well above the Sierra foothills treated elsewhere and are properly classified as high mountain areas. Irrigation here is almost wholly that of the mountain meadow on which wild hay and a less amount of grain and alfalfa are grown. All of the division is within the upper drainage of Feather River where the heavy annual precipitation of rain and snow gives the streams a volume greatly out of proportion to any needs in this division for irrigation. The normal annual precipitation at stations for which the United States Weather Bureau has records for ten years or more is 42.5 inches at Greenville, 46.3 inches at Quincy, and 89.2 inches at La Porte. Gagings of Feather River at Oroville[1] show an average annual run-off of about 1,600 acre-feet per square mile, or the equivalent of a depth of 30 inches over the entire drainage. Big Meadows, an area of 14,500 acres in this division, is being utilized by the Great Western Power Company for a reservoir, and the lands there consequently have no further agricultural value. In 1909, however, prior to beginning construction on the Big Meadows dam, 1,100 acres were reported irrigated.

SUMMARY OF VALLEY AGRICULTURAL AND IRRIGATED AREAS.

The following summary lists the valley agricultural and irrigated areas in this division of northern California:

Summary of valley agricultural and irrigated areas in the high mountain valleys in Plumas, Sierra, and southwestern Lassen counties.

Area.	County or counties.	Valley agricultural land.	Area irrigated.
		Acres.	Acres.
Sierra Valley	Sierra and Plumas	101,000	23,900
Mountain Meadows	Lassen	13,000	400
Big Meadows	Plumas	----------	1,000
Indian Valley	Plumas	11,000	5,900
Genesee Valley	Plumas	3,100	2,900
Meadow and Spanish Ranch valleys	Plumas	2,250	500
American Valley	Plumas	4,300	4,000
Long and Mohawk valleys	Plumas	1,400	550
Red Clover Valley	Plumas	4,250	2,100
Grizzly Valley	Plumas	8,200	100
Scattering	Plumas	9,500	9,250
Totals	----------	158,000	50,600

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[1] U. S. Geol. Survey Water Supply Paper.

SIERRA VALLEY.

This valley containing 101,000 acres, the largest agricultural area in the division, is at the head of Middle Fork of Feather River, in Sierra and Plumas counties, at a mean elevation of 4,900 feet. The soil of the valley is generally a sandy loam covered in its natural state with a heavy growth of sage and rabbit brush. Some adobe and a little alkali are found in the center of the valley. Continuous rainfall data are not at hand but the fall in 1910 is officially reported for Sierraville in the Weather Bureau records as 17.49 inches. The area reported irrigated in 1911 was 23,900 acres, most of this being north of Sierraville near Loyalton, and on Last Chance Creek. The crops irrigated are the wild hay and alfalfa typical of the division, but the area is generally believed to be suited to sugar beets, although they have thus far been grown only experimentally. With economical use, water is available for the whole of Sierra Valley and eventually, especially if beet culture is successfully introduced, 75 per cent or more of the total acreage may be expected to be receiving water. At present the supply is so abundant north of Sierraville and along Last Chance Creek during flood flow that irrigation is more a matter of distribution than of diversion, low dams and crude ditches carrying the water wild over the meadows. Near Loyalton the water supply is less abundant but one 15-acre reservoir already built indicates the possibilities of small-scale storage. The sources of the water supply now available to Sierra Valley are Last Chance, Smithneck, and Hamlin creeks, underground waters, and springs. While the annual flow in the creeks is large, as indicated by the heavy average run-off of Feather River already mentioned, storage is needed before it can be made available. Sites have been locally surveyed on Last Chance Creek and in the neck of Sierra Valley near Sierraville and ample capacity reported but not officially confirmed. For the Sierraville reservoir water would need to come from Middle Fork of the Feather River. The trough of the valley is naturally moist and underground water is present in considerable quantity, the full extent of which, however, no data are at hand to indicate. Northward from Sierraville quite a body of land is overflowed during floods and the building of drainage works for this has been contemplated but not executed. If present wasteful use can be superseded by more reasonable practice, at least part of the available storage built, some water pumped where the lifts are economical, and possible conflicts with power rights on the Feather avoided or adjusted, the estimated possible increase in the irrigated area of Sierra Valley indicated above is conservative.

MOUNTAIN MEADOWS.

This is an agricultural area of 13,000 acres on North Fork of Feather River in southwestern Lassen County at an elevation of 4,700 feet. Four hundred acres in wild hay and timothy were irrigated in 1911 by means of sloughs and 4 private ditches. The water supply for this valley is a tributary of Rock Creek, which is a tributary of

North Fork of Feather. The minimum flow of the creek is estimated at 20 cubic feet per second. but the seasonal supply, by greater use in spring, would irrigate a much larger area than the minimum flow furnishes. Storage in the upper one fifth of the valley would give water for nearly the entire lower four fifths, but this has not been seriously contemplated and if undertaken might conflict with power rights in Big Meadows below. Until greater use is made of the summer flow, storage will not assume any importance. Aside from possible conflict in water rights, the entire area can be classed as irrigable.

INDIAN VALLEY.

This is a mountain valley 12 miles north of Quincy on Indian Creek, a tributary of North Fork of Feather, at an elevation of 3,500 feet. At present practically the entire valley is in grain, wild hay, timothy, and alfalfa, 5,900 acres being reported irrigated. The use of the valley as a reservoir site has been considered,[1] the measured annual run-off at Crescent Mills from the tributary watershed of 790 square miles having averaged 600,000 acre-feet from 1906 to 1909, with the normal annual run-off estimated by the Reclamation Service at 500,000 acre-feet. Besides Indian Creek, Cook's Canyon, Lights, and Wolf creeks enter the valley. While the area artificially irrigated is only 5,900 acres, nearly all of the remainder of the valley receives natural irrigation during high water. Much of the valley needs drainage, but it can all be classed as irrigable.

GENESEE VALLEY.

About 10 miles northeast of Quincy there is another small area, known as Genesee Valley, on Indian Creek. The elevation of this valley is approximately 3,800 feet. Of a total of 3,100 acres, 2,900 acres, in two large ranches, are reported irrigated, the irrigated crops being the grain and wild hay typical of the region. The water supply available is of course ample.

MEADOW AND SPANISH RANCH VALLEYS.

Together these form an area of approximately 2,250 acres 9 miles west of Quincy lying at an elevation of 3,800 feet. They are comparatively flat valleys merging into rolling foothills and are watered by Spanish Creek and various small tributaries having a combined drainage area of 45 square miles. One small reservoir has been built at the head of Spanish Ranch Valley. The valleys were formerly heavily timbered and are now only partially cleared, 500 acres in wild hay being reported irrigated. At present crops are chiefly confined to the flat bottoms, but where the higher adjoining areas have been cleared, planted, and irrigated, growth is very satisfactory. Water is ample if properly used for irrigating the entire Meadow Valley and Spanish Ranch Valley areas.

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[1] U. S. Reclamation Service, 5th Annual Report.

AMERICAN VALLEY.

This is a flat valley of 4,300 acres in the vicinity of Quincy at an elevation of 3,400 feet. The usual mountain forage and grain crops are grown, 4,000 acres being under private irrigation ditches, with an ample water supply obtained from Thompson, Spring Garden, Taylor, and Spanish creeks. American Valley has been considered as a reservoir site, for which the Reclamation Service found a run-off of 86,055 acre-feet available.[1] It hardly seems likely, however, that this valley will be so utilized.

LONG AND MOHAWK VALLEYS.

These are two narrow areas of 400 and 1,000 acres, respectively, lying along Middle Fork of Feather River in southern Plumas County at elevations of 4,300 to 4,500 feet. A total of 550 acres in scattered pieces is reported irrigated in the two valleys where the agricultural land has been cleared of timber, and there is ample water for the entire areas.

RED CLOVER VALLEY.

This valley lies at an elevation of 5,400 feet along Red Clover Creek, a tributary of Indian Creek, northwest of Sierra Valley. Of a total of 4,250 acres of agricultural land, 2,100 acres are reported irrigated. The run-off from 127 square miles of watershed is ample if it can be controlled.

GRIZZLY VALLEY.

This is a tributary area to Sierra Valley, but being at an elevation of 5,800 feet it is now used for pasture and none of it irrigated. A tributary drainage of 33 square miles furnishes sufficient water for irrigation but the high elevation makes irrigation unlikely. The Reclamation Service reports a reservoir site here with a capacity of 62,000 acre-feet, with 20,000 acre-feet estimated as annually available.[1]

SUMMARY.

Recapitulating the data for the northern Sierra or Feather River valleys, it is found that 158,000 acres are valley agricultural land, with 50,600 acres in wild hay, grains, and alfalfa irrigated. Eliminating Grizzly Valley, because of its high elevation, the valley agricultural area becomes 149,800 acres. The water supply of the areas is in nearly every case ample for irrigating all of the land, but its utilization would involve storage, some pumping in Sierra Valley, and an adjustment or avoidance of conflicts in rights between irrigators and power interests. These valleys being in the main best suited to forage crops, and much of the soil in them being permanently relatively moist, it is not likely that the use of water in irrigation will materially lessen the flow to power and irrigation interests below. Other areas than Big Meadows are sure to be eventually used for reservoir sites for both power and irrigation in Sacramento Valley. If it were not for this fact, an estimate of 65,000 acres as the additional area that will be watered in the future would seem safe.

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[1] U. S. Reclamation Service, 5th Annual Report.

NORTHERN SIERRA FOOTHILLS.

Between the Feather River valleys and the plains of Sacramento Valley is situated the important zone of the Sierra foothills. Through these foothills must pass the many streams that originate in the higher portions of the Sierra and seek their outlet into Sacramento Valley below. The agricultural areas in these foothills are not continuously cultivable, nor are the areas that are cultivable usually valley areas, but rather the more even portions of countless spurs and ridges that are separated by rocky promontories and deep and rugged canyons and gulches. The non-agricultural areas are sometimes so rough as to have little or no value, even for grazing. The natural growth of the foothill belt is mostly brush and non-merchantable timber, the merchantable forests being on the higher slopes of the mountains. The soils are of the reddish types of granitic or volcanic origin and when irrigated are exceedingly fertile. Favorable climatic conditions and water, when available, add to these soils in making the region attractive for fruit growing, and where railroad transportation is easy of access and mining interests are not still paramount, considerable development has been accomplished, especially about Auburn and Newcastle. About 35 per cent of the deciduous fruits shipped from California are taken from the foothill areas of Placer County alone.

As already stated, the water supplies available to the Sierra foothills are the streams crossing them from the higher elevations of the Sierra on the east. In few cases are these streams easy of delivery to the cultivable areas. The larger streams—Feather, Yuba, Bear, American, and Cosumnes rivers—and their forks and main branches flow in deep canyons, making long conduits sometimes necessary to carry their waters to the irrigable lands. Fortunately many of the ditches and pipe-lines of the early-day mining camps, built at costs running into millions of dollars, have been rendered available to more permanent use in irrigation and power, thus making it possible in many cases to water lands whose agricultural products might not alone have yet justified the expense of bringing water to them. But not all of the water that passes through the foothills is available to them, for present and future irrigation development in Sacramento Valley and the hydroelectric power rights that have already become vested or that will become vested in the future, together make it certain that much of the foothill land is destined to remain without irrigation.

The Sierra foothill areas in northern California extend from the vicinity of Whitmore, east of Redding, south through Amador County.

SUMMARY OF AGRICULTURAL AND IRRIGATED AREAS.

The following tabular summary groups them by counties and according to their location between the principal river systems, giving also the acreages of agricultural and irrigated land.

Summary of agricultural and irrigated areas in northern Sierra foothills.

Area.	County or counties.	Agricultural land. Acres.	Area irrigated. Acres.
North of Feather River:			
Whitmore	Tehama and Butte	24,000	10,262
Paradise Ridge	Butte	12,000	700
Between Feather and Yuba rivers:			
Wyandotte-Bangor	Butte and Yuba	38,000	1,395
Browns Valley	Yuba	25,000	1,750
Between Yuba and Bear Rivers:			
Nevada City-Smartville	Yuba and Nevada	117,000	4,013
Between Bear and American rivers:			
Placer County fruit districts	Placer	104,000	14,000
Orange Vale-Fair Oaks	Sacramento	29,000	4,450
Between American and Cosumnes rivers:			
Georgetown	El Dorado	42,000	1,546
Placerville	El Dorado	26,000	1,613
Folsom-Pleasant Valley	El Dorado and Sacramento	148,000	1,100
South of Cosumnes River:			
Ione-Jackson	Sacramento and Amador	220,000	630
Scattering, unlocated		4,000	3,791
Totals		789,000	45,250

WHITMORE FOOTHILL AREA.

This is a broken area west of Millville, and from Whitmore south to Paynes Creek, lying along or adjacent to the small northeastern tributaries of the Sacramento below the Pit. Counting both the small pockets of creek bottoms and arable foothills, the total area is roughly estimated as 24,000 acres, of which 10,000 acres are along North and South Cow, Oak Run, upper Bear, and Clover creeks, and 2,000 acres are along Paynes, Plum, and Ripley creeks. The agricultural areas are, individually, relatively small and scattered, the surrounding country being hilly and timbered and similar throughout the area. In addition to the creeks named, several smaller streams furnish the available water supply for irrigation. No gagings are at hand for any of these streams, but the area has a total watershed of approximately 250 square miles, reaching elevations of 4,000 to 6,000 feet at the headwaters of the creeks, and an estimated rainfall of 35 to 50 inches. There is, therefore, ample water within the watershed for covering the irrigable lands but storage would be necessary to make it available for greatly increased use. At present 10,262 acres are reported irrigated, 75 per cent of which is between Millville and Whitmore. Filings have been made on nearly all of the streams for powe purposes and much land on which water has been used for irrigatio has been purchased by the Northern California Power Company an the use of the water changed from irrigation to power. In spite o the heavy normal rainfall, the agricultural lands without a wate supply for irrigation have a grazing value only. The irrigated crop from Millville to Whitmore are chiefly clover, timothy, grain, alfalfa and hops. About Manton and Paynes Creek apples and other deciduous crops are important. Where the use of water has been changed t power, numerous areas formerly irrigated have been abandoned. I the ascendency of power interests continues, agricultural values will decrease, except as bottoms continue to produce without water or irrigation supplies are pumped to the most accessible areas from the stream gravels.

PARADISE RIDGE.

This is an area of about 12,000 acres on the ridge between Butte Creek and West Branch of Feather River at a mean elevation approximating 1,900 feet. Lying on the Butte County Railroad 15 miles east of Chico, it is off the main lines of travel but still has rail communication with the centers. Production is mainly deciduous fruits and berries and with additional water the district could be cultivated nearly to the limits of its acreage. The present supply comes mainly from Little Butte Creek through a small ditch owned by the Oro Water, Light and Power Company, this ditch gaining the ridge near Magalia, where it irrigates about 600 acres, and then continues to join a ditch from West Branch of Feather River furnishing water for power and irrigation about Oroville. An additional small supply, irrigating 90 to 100 acres about Magalia, is obtained from the old Cherokee Mining Ditch, owned by the Pacific Gas and Electric Company. Cherokee Ditch obtains water from a branch of Big Butte Creek opposite Powelton and carries it to Spring Valley Reservoir across West Branch of Feather River near Concow, the only present use being that for irrigation near Magalia. A large supply of irrigation water per acre is not needed on Paradise Ridge and there is probably a sufficient annual run-off from 13 square miles on Little Butte Creek alone to supply the entire area if it could be stored and power rights were not conflicting. Even if Little Butte Creek should fail to furnish enough water its flow could be supplemented by diversion into it of some small tributary of West Branch of Feather River on the north and east. Or, with cheap power, there seems no reason why some water can not eventually be pumped from West Branch of Feather River at some point between Paradise Ridge and Stirling from which a gravity conduit could carry it economically to the ridge. One privately surveyed storage site is available on Little Butte Creek a short distance above Magalia which, if available to Paradise Ridge, would care for much of the present shortage. Other sites are also undoubtedly at hand. Taken altogether, as deciduous fruits justify a considerable expense for water, it seems reasonable to class all of the Paradise Ridge as ultimately irrigable. One acre-foot per acre per year delivered at the small holdings would suffice for most of the area if only that amount could be furnished economically.

WYANDOTTE-BANGOR AREA.

East of the plains country about Oroville and Palermo and north of Honcut Creek, in the general vicinity of Wyandotte and Bangor, and below the 1,000-foot contour, 38,000 acres of rolling foothills that are now partially covered by the South Feather Land and Water Company have been classed as irrigable. This land is covered with the scrub oak, chaparral, and digger pine characteristic of the low Sierra foothills and when cleared and irrigated is considered very satisfactory for the growth of both deciduous and citrus fruits. Present cultivation extends up to elevations of 900 and 1,000 feet, and in 1912, 1,395 acres were reported irrigated. The water supply of this area now comes from Lost, Orleva, and Pinkard creeks, all tributaries of South Fork of Feather River, Lost Creek being most dependable for summer flow. It is locally estimated that 5,000 acres are susceptible of irrigation through the Forbestown Ditch and its branches of the South Feather Land and Water Company. The normal rainfall at Oroville, seven miles west of Wyandotte, is 28.4 inches, and the rainfall on the watershed of the creeks supplying the area is above that. Irrigation here will be involved with irrigation in the Palermo section. A watershed of 107 square miles is tributary to South Fork of Feather River above the latter, and with two thirds of the average rate of run-off of the entire Feather above Oroville, this would supply 128,400 acre-feet of water per annum if it could all be conserved. What proportion of the available supply can be used in the Wyandotte-Bangor area, however, cannot be satisfactorily estimated. In addition to South Fork and its tributaries, Honcut Creek and its numerous branches passes through the area and if storage is feasible on it, could be made to add to the supply if its use were not forced lower down on the plains and small bottoms about Honcut.

BROWNS VALLEY AREA.

This is an area of indeterminate extent of which 25,000 acres centering about 15 miles east of Marysville are classed as irrigable. The lands here have an elevation of 300 to 500 feet and possess physical conditions similar to those of the Wyandotte-Bangor area adjoining it above Honcut Creek directly to the north. Between 1888 and 1893 approximately $175,000, in bonds, was spent through the medium of Browns Valley Irrigation District to supply water to this area from North Fork of Yuba River. At present only 1,750 acres are irrigated and this area receives water by virtue of a contract with the Pacific Gas and Electric Company in accordance with which that company maintains and operates the district canals in conjunction with a power installation above the irrigable lands, and at an annual cost to the irrigators of $3 per miner's inch. The main ditch of Browns Valley District heads in North Fork of Yuba River a short distance above the latter's junction with Middle Fork, the tributary watershed above the point of diversion being 490 square miles. The measured discharge of Yuba River at Smartsville for the years 1903 to 1910[1] shows a mean annual run-off for the entire Yuba of 2,640 acre-feet per square mile. If this mean can be applied to North Fork the annual run-off above Browns Valley Ditch is 1,790,000 acre-feet. There can be no question that water is available for the entire irrigable portion of the Browns Valley area if the course of development permits its use there.

NEVADA CITY-SMARTSVILLE AREA.

Between Yuba and South Fork of Yuba and Bear rivers, and extending in regular and broken patches from the Sacramento Valley plains to an elevation of 2,500 feet east of Nevada City and Grass Valley, 106,000 acres are more or less roughly estimated as agricultural and within the general range of water for irrigation. Of this 4,013 acres is now reported irrigated, of which 1,000 acres is under the ditches of the Excelsior Water and Mining Company along the ridges from Smartsville to Nevada City. Some land is also watered south of Smartsville about Spenceville and Cabbage Patch, as well as along Wold Creek and its tributaries south of Grass Valley. With the exception of a small acreage about Smartsville and Cabbage Patch in Sacramento County, all of the area is in Nevada County. An additional area of 11,000 acres of the same character lies between Middle and South forks of Yuba River, also in Nevada County, from North San Juan east to Paterson and south of French Corral.

The entire Nevada City-Smartsville area is still more devoted to mining than to agriculture, the principal ditches carrying more water for the former purpose than the latter. While the normal rainfall at Nevada City has been more than 55 inches for a period of nineteen years, the rapid run-off, relatively shallow mountain soils, and summer droughts make irrigation necessary. The crops grown are alfalfa and wild grasses on the lower lands and grain, hay, deciduous and some citrus fruits, and small gardens, all chiefly for local consumption. The water supply now diverted to the area comes partly from many small creeks but mainly from South Fork of Yuba River. The principal creeks furnishing irrigation water are Deer Creek above Nevada City, Squirrel Creek, in Penn Valley, and Wolf Creek, south of Grass Valley. Excelsior Water Company claims all of the water of Deer Creek and in South Yuba River and tributaries below or west of the South Yuba Water Company's system. The annual yield of South Fork of Yuba River above the heading of Excelsior Ditch, at the average yield per square mile for the entire Yuba of 2,640 acre-feet, is enough for irrigating all of the area tributary to its ditches but it will not all be used there. Improvements under way in 1911 contemplated making the system susceptible of irrigating 5,000 acres. It has further been estimated that with the future decline of mining 40,000 acres can be brought under the system, but this is probably an excess figure. For the area about North San Juan only small local streams are economically available for irrigation. For the areas about Cabbage Patch and Spenceville and along Wolf Creek, Bear River might be diverted but the use of that stream, whose summer flow is small, is not likely on these high areas. If 25 per cent of the agricultural land in the Nevada City-Smartsville area, or approximately 30,000 acres, is eventually irrigated, development will then have reached the limit of what now seems reasonably to be expected.

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[1] U. S. Geol. Survey Water Supply Paper 298.

PLACER COUNTY FRUIT DISTRICTS.

South of Bear River and north of North Fork of American River the Sierra foothills have reached their highest agricultural development in northern California. The arable foothill lands between these two streams are similar to those north of Bear River, but the presence of more of the old mining ditches and of more accessible railroad transportation have resulted in a very much larger area being brought under irrigation. Of 134,000 acres classified as arable between these two rivers, 104,000 acres embrace the Placer County fruit districts that are now irrigated to the extent of 14,000[1] acres by the various conduits of the South Yuba Water Company, owned by the Pacific Gas and Electric Company. The water supply of South Yuba Water Company, which is used for power as well as for irrigation, comes from Bear and South Yuba rivers, and is distributed through twenty lakes and reservoirs, with a capacity of 46,500 acre-feet, and 265 miles of ditches and pipe lines, the present total diversions being 130 cubic feet per second. From the various sources and storage reservoirs, the collected waters pass to Lake Spaulding, which has been acting as the final storage and distributing point of the system. The enlargement of the Lake Spaulding storage to a capacity of 91,800 acre-feet is now in progress in connection with the hydroelectric development of the Pacific Gas and Electric Company, and the water, after use in generating power from this and the other storage is to be returned to Bear River for re-diversion for irrigation purposes. The total quantity to be diverted by the company under its enlarged development will be 350 cubic feet per second. After re-diversion from Bear River the water is to be used on about 35,000 acres between American and Bear rivers and on areas extending from Applegate to Roseville and Lincoln.

The Placer County fruit district, of which the main towns are Newcastle, Auburn, Penryn, Loomis, and Rocklin, is the largest center of mountain fruit growing in California. Although a 40-year rainfall record at Auburn shows a mean annual precipitation of 35.13 inches, irrigation is necessary owing to the steep ground slopes and the relatively shallow soils. With small quantities of water—the duty is claimed to average 1 inch to 7 acres—fruit growing is successful. Water is sold to irrigators in these districts at the flat rate of $45 per miner's inch per year, and is used by the irrigators in small continuous streams and distributed to the orchards in contour furrows.

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[1] Later data shows the irrigated area in 1912 to be 15,000 acres.

A 50 per cent development in these fruit districts would more than treble the present irrigated area.

ORANGEVILLE-FAIR OAKS AREA.

This is a continuation of the foothill area of the Placer County fruit districts, lying north of American River in Sacramento County, beginning about 10 miles northeast of Sacramento. The slopes are less steep here than in the foothills farther north. Approximately 29,000 acres are embraced in the area, of which 4,450 are reported irrigated. Aside from springs and a few small creeks watering about 450 acres, the main water supply now available to the area is that of the American Canyon Water Company. This company obtains water from North Fork of American River southeast of Auburn which it delivers through three reservoirs, 25 miles of main canal, and 27 miles of steel pipe to Orangeville and Fair Oaks colonies. Of 4,000 acres irrigated in these colonies, approximately 3,200 acres are in orchards, largely citrus, 200 acres in vineyards, 80 acres in alfalfa, and the remainder in lawns, gardens, and berries. In all, 11,000 acres in the two colonies are now piped for water distribution.

Ultimate irrigation development here as elsewhere in the foothills depends on the water supply that can be made available from the large streams. Gagings are not at hand for North Fork of American River, but the Geological Survey record for the entire American River at Folsom shows an average annual run-off per square mile of watershed of 1900 acre-feet, over one half of the total watershed of 1,910 square miles being on North and South forks. But while the annual flow of North Fork of American River is large, the summer flow is small and adequate for only a relatively small area without storage, and no data are at hand with reference to the possibilities of that. As in the Placer County fruit districts, water is distributed to orchards here in contour furrows, but at present under a flat annual acre charge of $3.

AREAS BETWEEN AMERICAN AND COSUMNES RIVERS.

South of North and Middle forks of American River and north of the Cosumnes 216,000 acres have roughly been classed as agricultural land by throwing out all land known to be too rocky or too steep for cultivation below an elevation of 2,500 feet. Adjoining the Sacramento Valley plains areas is a large area of now barren and slightly rolling land of which part is devoted to grain growing and a larger acreage to grazing. From there to an elevation of 2,500 feet the area is very much broken and only the tops of the ridges and their more gently sloping sides are susceptible of cultivation. Between Middle and South forks of American River 42,000 acres of the total are situated, the center of this area being Georgetown. In 1911 the area reported irrigated there was 1,546 acres, supplied by the Loon Lake Water and Power Company, one branch of their system extending to the vicinity of Cool and another to Garden Valley and Kelsey. The Loon Lake Company contemplates considerable storage and estimates that their system can be extended to cover 15,000 acres. Between South Fork of American River and Weber Creek are 26,000 acres of agricultural land with Placerville the main center. Here the Sierra Water Supply Company furnish water for approximately 1,000 acres in the vicinity of Placerville and Granite Hill. The diversion of this company is from South Fork of American River 31 miles above Placerville and their distribution is mainly through old mining ditches as elsewhere in the foothills. The Ranchers Ditch Company irrigates about 200 acres in the vicinity of Coloma, and an additional scattered irrigated area of 413 acres is reported. The mean annual precipitation at Placerville covering a period of 34 years is 45.59 inches and profitable agriculture is possible without irrigation, but irrigation here as elsewhere in the foothills is necessary for commercial fruit growing and its considerable extension is looked for. The remainder of the agricultural lands between American and Cosumnes rivers, aggregating approximately 148,000 acres, extend from Folsom to Pleasant Valley. At present 1,100 acres are reported irrigated. The land nearest the Sacramento Valley plains is generally shallow and not promising for irrigation development, but from Shingle Springs to Pleasant Valley, at elevations of 1,500 to 2,500 feet, better areas are found. The Diamond Ridge ditches, forming the Crawford Ditch system, now water about 500 acres near Diamond, El Dorado, and Shingle Springs by diverting water mainly from North Fork of Cosumnes River at Steely's Ford but also, en route from Camp, Clear, Squaw Hollow, and other creeks. This system comprises about 80 miles of main ditches and laterals originally used exclusively for mining and thus covers a rather extensive territory in which water will be more and more used for irrigation.

IONE-JACKSON AREA.

Another large and undeveloped foothill area, with the roughly classified agricultural lands scaling to 220,000 acres, lies south of Cosumnes River in Sacramento and Amador counties. At present the irrigated area reported is only 630 acres with but little further development active. Much of the soil roughly classified as agricultural, like much of that in the foothill areas farther north, is too thin for satisfactory cropping, but when the soil is sufficiently deep all kinds of deciduous fruits are successfully grown in small family orchards and flourishing vineyards are to be seen on the hillsides near Jackson. Mining still predominates in Amador County. The greatest present agricultural growth is in Jackson and Ione valleys, together comprising about 18,000 acres, along Jackson and Sutter creeks. Alfalfa is grown without surface irrigation along the main creek bottoms, but grains form the main crops and stockraising is the chief agricultural industry. More intensive development has been retarded here by large holdings. Counting Cosumnes and Mokelumne rivers, with mean annual discharges at the gaging stations of the Geological Survey at Michigan Bar and Clements of 571 and 1,440 cubic feet per second, respectively, or of 404,000 and 1,040,000 acre-feet,[1] there is a large supply of water tributary to this area. What portion of this is to be stored and used in the foothills rather than in Sacramento and San Joaquin valleys cannot be estimated. A number of water systems are operating in this area, owned principally by the Pacific Gas and Electric Company, the Amador and Volcano Mining and Land Company, Hayward, Hobart, and Lane, and the Lancha Plana Irrigation and Mining Company. These systems are chiefly used for mining or power and irrigation under them is incidental only. It may reasonably be assumed that eventually there will be such reorganization and readjustment of these systems as to result in a larger quantity of water controlled by them being used for irrigation, but until this is accomplished no irrigation extension will be possible other than such as will result from small storage on the numerous lesser streams of the area, of which there are many.

SUMMARY.

More than three quarters of a million acres of agricultural land is the estimate that has been made for the Sierra foothills of northern California of which 45,259 acres are now reported irrigated. In nearly every section included the annual water supply is more than sufficient for irrigating the arable areas found, but difficulties of diversions, uncertainties as to storage possibilities, power and mining development in the foothills themselves, and the certainty of large use of the Sierra streams for irrigation in Sacramento Valley render hazardous any estimate of ultimate irrigation development. No more than reasonable difficulties and complications however seem in the way of future increase in the irrigated area to between 150,000 and 200,000 acres.

SACRAMENTO VALLEY.

This main division of northern California is taken to include (1) Sacramento Valley proper, extending from Red Bluff south to the mouth of the Sacramento at Collinsville, and including both valley floor and adjacent valley plains; (2) broken areas about Redding and along the Sacramento and its upper tributaries other than Pit and McCloud rivers and the streams of the Whitmore foothill area; and (3) the rolling agricultural foothills or upper valley plains bordering the west side of Sacramento Valley south to Cache Creek. This classification puts into the Sacramento Valley division the territory broadly considered as forming Sacramento Valley, with the addition of the scattering bottoms and plains about Redding. Such areas as those at Browns Valley, Rocklin, Orangevale, and Fair Oaks, although not far removed from the valley, are still more properly treated with the Sierra foothills.

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[1] U. S. Geol. Survey Water Supply Paper 299.

DESCRIPTION.

While the detailed study of soils has not been part of the investigations with which this report deals,[1] a brief statement of the varying soil conditions in Sacramento Valley and their topographic occurrence is necessary to an interpretation of present and a general understanding of probable future development under irrigation.

The valley plains—These are the gently undulating, sometimes "hog-wallow," talus lands bordering the eastern edge of the valley and the sometimes more rolling and generally more elevated areas forming the western edge. On the east side, and north of Stoney Creek on the west side, these plains areas are characteristically red or reddish, gravelly, and generally of heavy or compact subsoil, the latter often being a tough hardpan that only dynamiting renders fit for tree growth. Southeast of Red Bluff and northwest of Oroville much of the plains is non-agricultural, except for grazing, because of lava, and in some other sections the presence on the surface of cemented gravel renders them unfit for cultivation. South of Stoney Creek on the west side the so-called plains are themselves either the low eastern ridge of the Coast Range foothills or the washings from them. They are made up of grayish and brownish soils of more uniform character and greater depth. While, as indicated, the Sacramento Valley plains are in places of low, if any, agricultural value, on the whole they constitute a thermal zone of high horticultural value within which the growth of such fruits as oranges, lemons, olives, and almonds has proven very profitable. At present the chief intensive development of the plains lands is in the orchards about Oroville and Corning, and the recent citrus plantings west of Maxwell, noted elsewhere in this report, point the way toward development on the west-side plains that is likely to be limited only by the economic availability of a water supply for irrigation. From Red Bluff south the total area of the plains, including the slightly wooded areas west of Tehama and Arbuckle, scales 346,700 acres on the east side and to 326,300 acres on the west side, the latter not including the higher and steeper of the bare hills, as those west of Norman and Delevan, but otherwise extending to the rocky, broken, and wooded foothills of the Coast Range. The line dividing the valley plains and the foothills is usually not difficult to draw, but in some cases that between the plains and the valley, especially south of Marysville, can only be arbitrarily assumed. Most frequently, however, the plains form a distinct step above the valley floor that is sometimes only slight, although frequently abrupt.

Main valley floor—Below the plains lie the upper lands of the main Sacramento floor. Not all of these are alluvial, which might be considered as limiting real valley land. On the contrary, in addition to the rich alluvium of the Sacramento River bottoms and the immediate bottoms of some of its tributaries, the main valley floor is taken to include the only partly alluvial bottoms of some of the other tributaries and the lower elevations of what a classification strictly according to soil types would include as plains. What might be called the lower plains, because their soils more resemble the gravelly loams of some of the upper plains than the fine silts of the immediate river bottoms, are herein considered part of the main valley floor, because in general they have similar growing and water conditions and require similar methods of agricultural treatment. While the main valley floor contains some soils that are at present of low-producing value, as the ''goose'' lands south of Willows, or difficult to crop, as the heavy black adobes south of Durham, they are as a whole both deep and rich and readily respond to good methods of cropping, tillage, and irrigation. They have been the main source of the enormous yields of grain that brought prosperity to this portion of California for fifty years after farming began in the State, as they will be the main scene of general irrigation farming in Sacramento Valley in the future. Counting approximately 535,000 acres on the east side and 424,500 acres on the west side subject to temporary and intermittent overflow in periods of flood flow in the Sacramento and its main tributaries, and including the overflow lands, the main valley floor scales to 1,346,800 acres between the river and the plains on the east side and to 1,286,200 acres between the river and the plains on the west side—a grand total of 2,633,000 acres. Of these areas of overflow lands, 136,500 acres on the west side and 163,100 acres on the east side are embraced in reclamation districts or are under private reclamation.

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[1] See special report on physico-geographical and agricultural features of California, by E. W. Hilgard, in report to the superintendent of the census, dated June, 1883 (Government Printing Office, 1884), and U. S. Dept. Agr., Bureau of Soils, soil surveys of Redding, Red Bluff, Colusa, Woodland, Marysville, and Sacramento areas.

The basin and island lands—The main Sacramento Valley floor as above defined is not a continuous body of irrigable land from the plains on the east to the plains on the west, but is interrupted by the basin and other overflow lands on each side of the river below and about the line between Glenn and Colusa counties, and by the islands in the river delta region above Collinsville. From Stoney Creek, the beds of Sacramento River and of the lower portions of its main tributaries are higher than the adjacent lands, and during flood periods of late winter and spring the streams seek relief through five main depressions or basins, namely, Colusa and Yolo basins on the west side of the valley, and Butte, Sutter, and American basins on the east side. The result of the streams thus leaving their channels is the permanent or temporary submergence of 800,000 acres during every considerable flood and of 1,088,000 acres during extraordinary floods,[1] these acreages including the sloughs and side channels at the mouths of both Sacramento and San Joaquin rivers near Collinsville. Of the zone thus within the paths of the overflow, something over 300,000 acres have been wholly or partially reclaimed by dyking, 47,000 acres are classed on the latest topographic map of the valley as salt marshes, and 50,000 acres as fresh water marshes, leaving 691,000 acres, approximately, still subject to occasional flooding. While leveeing costing nearly twenty million dollars has been done along the Sacramento and its main tributaries, no comprehensive or consistent scheme or reclamation has yet been put into effect, the result being frequent disaster, each new reclamation by so much restricting the free escape of the floods to Suisun Bay.[1] Much study has been given to comprehensive plans of leveeing and it is now hoped to carry out a project prepared by the California Débris Commission,[2] that will result in the permanent reclamation of 400,000 acres more swamp land and the permanent protection of the lands now subject to temporary overflow. The latter is to be accomplished by carrying levees along the main sloughs and streams entering the basins, from the by-passes to high ground, and by supplying culverts or pumps to remove the surface water accumulating above the levees. When this project shall have been carried out, the area, principally between levees, that will still remain non-agricultural because of being occupied by stream and flood and other drainage channels will approximate 250,000 acres, and the total area of reclaimed land will approximate 750,000 acres.

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[1] 62d Congress, 1st Session, House Document No. 81, Reports on the control of floods in the river systems of the Sacramento Valley and the adjacent San Joaquin Valley, California.

CONDITIONS OF DEVELOPMENT IN SACRAMENTO VALLEY.

While the irrigable areas of Sacramento Valley are treated below in some detail, both as to their character and water supply and their present and possible irrigation, some generalizations seem in place here as to the conditions and trend of development in the valley.

Sacramento Valley, although the best watered of any large irrigable area of California, is in the paradoxical situation of being the least irrigated. With a large expanse of land suited to receive water, and in general every condition of soil and climate present that is favorable to intensive and varied culture under irrigation, the total acreage in the valley yet watered is less than is irrigated under a number of single canal systems elsewhere in the State. Many conditions are responsible for this slow growth. In the first place, favorable winter temperatures and a normal rainfall averaging approximately 20 inches, of which more than 80 per cent falls from October to March, has permitted the profitable raising of grains during the winter and spring months without irrigation, and the large land holdings have made such farming both attractive and profitable to those accustomed since the bonanza days to large-scale operations. When fruits and alfalfa have been planted on the alluvial lands of the valley floor, and in some cases even on the plains, they have produced so well without irrigation that many have been led to believe that the expense involved in getting a water supply for irrigation would not be justified by the additional returns irrigation would bring. And even with irrigation accepted as desirable, to obtain a water supply even in a valley so lavishly watered as the Sacramento has involved an effectiveness of association on the part of the landowners that could not be expected in a section so sparsely settled. Knowledge about underground sources, which are closest at hand, has been meager; in fact, outside of the valuable citrus orchards of the south, the economical justification of pumping water for irrigation has only been generally appreciated within the past decade. The value for irrigation of the streams entering the valley from the Sierra or coast ranges has always been understood, but the water laws of the State have so permitted the control of some of them, either by riparian proprietors or appropriators who have neither fully used them nor permitted others to do so, that irrigation development approaching the capacity of such streams has been out of the question. The only water sources in Sacramento Valley whose use has not been retarded by the adverse interests mentioned are the main Sacramento and the Feather and the American, the two larger tributaries of the east side. In the case of the Feather and the American, only the natural slowness of irrigation extension common to Sacramento Valley or the absence of ample low-water flow at points of economical diversion, has held back use. In the case of the Sacramento, the interests of navigation, whose tonnage now aggregates approximately thirty million dollars per year, have stood as an obstacle to irrigation. Although it is doubtful if any proper diversion for irrigation would have been prevented in the interests of navigation, the large additional use of this river will involve not only storage on the Pit to obtain a late summer flow, but also diversion so long and so expensive as to require attractions to capital that apparently do not now exist; or in lieu of that, a strength of organization under the irrigation district law that will be difficult of accomplishment with water available to many from underground or Coast Range sources. Sacramento River lies separated by Colusa and Yolo basins from the higher grounds on the west side below Stoney Creek that are in most need of it, rendering all-gravity or pump and gravity diversions below Central Canal possible only to the lands immediately bordering the river. With storage on the Pit and Feather, water is likely always to be available in the river opposite Colusa and Yolo basins, but the pumping of water across these basins to even the lands of the main valley floor is not yet looked upon as feasible, and probably will not be attempted on a large scale until all underground sources are exhausted and all practicable or economical diversion is effected from Sacramento through or above Central Canal. Nevertheless, if the west-side plains prove as profitable for citrus orchards as the experienced growers who are now starting large plantings on them west of Maxwell believe, and if water is not available from other sources, it is at least conceivable that pumping across the basins to these higher areas will eventually be resorted to, regardless of the fact that such procedure would at present be considered far in advance of economical development.

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[1] It is estimated in the report of the California Debris Commission that in the flood of January, 1909, the loss in 41 of the 48 reclamation districts then in existence was over $4,500,000, and that the losses throughout the valley due to the floods in 1904, 1907, and 1909 amounted to at least $11,000,000.

[2] For account of reclamation work in Sacramento and San Joaquin valleys, abstracts of reclamation laws, and investigations of State and Federal governments see House Documents 1123 and 1124, 60th Congress, 2d Session; House Documents 76 and 81, 62d Congress, 1st Session; Report to the Commissioner of Public Works of California by Dabney Commission, 1904; Report of Commission of Public Works of California, 1894; and Transactions Commonwealth Club of California, Vol. IV, No. 5. The method of control recommended by the California Débris Commission is the improvement of the present main channel for navigation, with by-passes through Butte, Sutter, and Yolo basins for maximum floods, the by-passes being leveed and covering 78,000 acres of agricultural land, of which 38,000 acres could be partially cultivated. The estimated areas in each basin covered by the by-passes are Butte, 7,570 acres; Sutter, 13,970 acres; and Yolo, 56,545 acres. The estimated cost is $33,000,000, of which it has been recommended that the benefited areas pay one third, the State of California one third, and the Federal Government one third.

WATER SUPPLY OF SACRAMENTO VALLEY.

Although the water supply available to the different unit areas of Sacramento Valley as they have been segregated for treatment is discussed below in connection with such areas, a general summary of known data regarding it seems in place here.

The water resources of Sacramento Valley are the largest in the State, the estimated mean annual run-off of the Sacramento and tributaries being approximately twenty-six million acre-feet. General studies of these resources have been made both in connection with flood control and irrigation, these studies including stream gagings and examinations for reservoir sites on all of the larger streams.[1] The following summary of stream-flow records, taken from the reports of the United States Geological Survey and of the California State Engineering Department, give the mean monthly and annual discharge for the principal streams of the valley for the years down to and including 1910 for which records are available:

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[1] U. S. Dept. Agr., Office Expt. Stas. Bul. No. 207; U. S. Reclamation Service, 5th Annual Report; House Doc. 81, 1st Session, 62d Congress, Reports on control of floods in the river systems of the Sacramento Valley and the adjacent San Joaquin Valley, Cal.; Reports of California Commission of Public Works, 1894 and 1905; U. S. Geol. Survey Water Supply Paper No. 298.

Table showing drainage areas in square miles and the mean monthly and annual flow in cubic feet per second of streams in Sacramento Valley, 1875-1910.

Stream and point of measurement.	Number of years	Drainage area. Square miles	Mean flow in cubic feet per second.													Total mean annual run-off. Acre-feet.
			October	November	December	January	February	March	April	May	June	July	August	September	Mean flow	
Sacramento River at Red Bluff	16	9,300	5,800	9,450	12,000	22,500	32,600	29,900	19,500	14,700	9,190	6,110	5,180	5,090	14,300	10,400,000
Sacramento River at Collinsville[1]	7	26,200	7,920	8,460	17,300	39,000	40,100	56,400	84,600	83,900	55,700	21,400	9,570	6,810	35,900	26,000,000
Stoney Creek at Fruto	10	600	64	339	525	1,910	2,670	2,300	1,080	497	180	36	12	14	802	581,000
Feather River at Oroville	9	3,640	1,930	4,540	4,920	10,900	14,000	19,200	17,400	12,900	7,560	3,080	1,820	1,600	8,320	6,020,000
Yuba River near Smartsville	7	1,220	657	1,730	2,420	7,170	7,890	9,840	8,480	7,790	4,840	1,490	543	476	4,440	3,220,000
Bear River at Van Trent	6	263	98	73	338	1,830	1,380	1,760	678	383	227	58	32	33	574	416,000
Cache Creek at Yolo	8	1,230	41	77	250	1,790	2,800	2,890	1,940	957	462	202	79	22	960	695,000
Putah Creek at Winters	5	805	11	24	312	3,010	2,150	2,170	544	181	97	26	12	9	712	515,000
American River at Fair Oaks	6	1,910	396	1,150	2,410	8,350	7,940	10,900	9,590	9,240	7,100	2,710	635	330	5,060	3,630,000
Cosumnes River at Michigan Bar	3	524	33	96	371	2,030	1,370	1,370	909	472	161	26	4	7	571	404,000

[1] California State Engineering Department, 1878-85.

An examination of the above summary shows that large as is the water supply tributary to Sacramento Valley, the distribution of run-off is not favorable to direct diversion for irrigation. The main irrigation season is from April to September, the time of its beginning and ending depending on the spring rains and the extent of water available in the late summer and fall. March is the month of maximum run-off, with 19 per cent of the total, but irrigation is not practiced to any considerable extent, and usually not at all, in that month. By June, when heavy irrigation should begin, the run-off falls below the mean for the year. By the end of July it is down to approximately 10,000 cubic feet per second, and throughout August and September it is below that figure. A glance at the table shows that the mean flow of the Sacramento at Collinsville for August and September is 9,570 and 6,810 cubic feet per second, respectively. In 1908, the minimum year covered by the records, the total mean discharge of the measured streams was only 12,500,000 acre-feet, or 49 per cent of the mean of 26,000,000 acre-feet.

STORAGE FOR SACRAMENTO VALLEY.

The lack of available water for irrigation by diversion of natural flow during the summer months shows that storage will be necessary before large irrigation development can take place in Sacramento Valley. The available data regarding storage sites therefore become of prime interest. A summary of these, taken from Fifth Annual Report of the United States Reclamation Service, is inserted below. The sites listed do not include numerous sites already utilized on the Sierra streams, but without those they have estimated amounts annually available to them from their tributary watersheds of 3,390,184 acre-feet.

Summary of data regarding available storage on Sacramento Valley streams.

Name of reservoir.	Description.	Capacity of reservoir basin as surveyed.	Probable amount available annually from watershed.
		Acre-feet.	Acre-feet.
Guenoc	Putah Creek	188,000	80,000
Monticello	Putah Creek	130,000	130,000
Clear Lake	Cache Creek	100,000	100,000
Little Indian Valley	Cache Creek	76,500	50,000
Briscoe	Stony Creek	14,385	14,385
East Park	Stony Creek	26,000	26,000
Mill Site	Stony Creek	43,735	43,735
Iron Canyon	Sacramento River	226,900	226,900
Jess Valley	South Fork Pit River	224,560	----
West Valley	South Fork Pit River	94,579	----
Warm Spring Valley	Pit River	559,015	----
Round Valley	Ash Creek	184,732	----
Big Valley[1]	Pit River	3,196,188	[2]1,000,400
Big Meadows	North Fork Feather River	780,384	780,380
Indian Valley	Indian Creek	688,000	500,000
Concow	North Fork Feather River	10,012	10,012
Butte	North Fork Feather River	107,000	107,000
American Valley	North Fork Feather River	86,055	86,055
Spanish Ranch Valley	North Fork Feather River	8,469	8,469
Buck Valley	North Fork Feather River	37,843	37,843
Grizzly Valley	Middle Fork Feather River	61,820	20,000
Mohawk Valley	Middle Fork Feather River	12,626	12,626
Oregon House Valley	North Fork Yuba River	90,823	90,823
Greenwood	American River	65,952	65,952
Totals	----	7,013,578	3,390,184

[1] Big Valley reservoir site is below Jess Valley, West Valley, Warm Spring Valley, and Round Valley reservoir sites.

[2] This estimate includes discharge from Goose Lake drainage.

Where storage capacity is greatly above the supply probably available annually, as is strikingly true in the case of Big Valley, the excess years would enable additional amounts to be carried over to the years of less yield. All of the reservoir sites listed can not be considered as available for irrigation in Sacramento Valley, for their use for that valley must be contingent on both power and irrigation rights on the upper streams, and on such conditions of navigation on Sacramento River as the United States decides to maintain. Power uses adverse to irrigation have not yet been felt on the west-side streams or on the main Sacramento, but they are becoming of importance on the east side. These and other matters relating to water supply are considered in detail in connection with the unit areas of the valley.

SUMMARY OF AGRICULTURAL AND IRRIGATED AREAS.

The following table summarizes the agricultural and irrigated areas of the Sacramento Valley division as they were segregated by county, hydrographic, or other lines for field study:

Summary of agricultural and irrigated areas in Sacramento Valley.

Area.	County or counties.	Valley agricultural land. Acres.	Plains agricultural land. Acres.	Area irrigated. Acres.
Redding	Shasta and Tehama	24,000	55,000	4,080
Happy Valley	Shasta and Tehama		62,000	1,628
West Side:				
Red Bluff-Corning	Tehama	87,000	137,000	4,500
Orland	Glenn	79,000	32,300	5,300
Stoney Creek	Glenn	3,000		2,250
Willows	Glenn	186,000	40,000	6,000
Colusa	Colusa	330,000	39,000	7,875
Woodland	Yolo	400,000	78,000	14,570
Capay Valley	Yolo	10,000		160
Solano	Solano	157,000		2,527
Vaca Valley	Solano	7,000		50
Suisun	Solano	30,000		278
East Side:				
Red Bluff-Vina	Tehama	34,500	29,000	9,600
Chico	Butte	138,000	15,200	800
Glenn-Colusa east side	Glenn and Colusa	82,500		
Feather River	Butte	266,000	86,000	17,190
Sutter Basin	Sutter	158,000		218
Yuba	Yuba	113,000	14,500	4,186
Sacramento-Lincoln	Sutter, Placer and Sacramento	246,000	94,000	225
Sacramento-Galt	Sacramento	236,000	108,000	13,000
Lower Sacramento River islands	Sacramento	72,000		28,272
Scattering, unlocated				791
Totals		2,659,000	790,000	123,500

REDDING AREA.

This includes the scattering areas of alluvial bottom lands along Sacramento River and tributaries between Redding and Red Bluff, aggregating 24,000 acres. It also includes the gravelly plains and lower foothills adjacent to the bottoms, aggregating 55,000 acres. Beginning at the north, the bottom areas are along Churn, Stillwater, and Cow creeks and Sacramento River, east and south of Redding; along Sacramento River and Clear, Cottonwood, and Bear creeks, near Anderson and Cottonwood, and along Sacramento River and lower Paynes Creek, between Anderson and Red Bluff. The creeks east of Redding flow through Stillwater and Millville plains, which are elevated areas of an entirely different character from the narrow creek bottoms. These plains are agriculturally similar to the plains on the east side of Sacramento between Oroville and Chico and thereabouts.

The valley lands in the Redding area are mostly all cultivated. As a rule, irrigation is not practiced, the watered area being only 4,080 acres, lying mainly along Cow Creek and tributaries, Clear Creek, and the lower portion of Paynes Creek near Bend. The first-bottom lands are usually devoted to alfalfa. On some of the lands above the low first bottoms, particularly along Churn Creek and along Sacramento River near Anderson, deciduous fruits predominate. The remaining cultivated lands, generally 50 to 75 feet above the adjacent streams, are still devoted to grain growing. Neither the deciduous fruits nor the grains are irrigated. The lands of the Millville and Stillwater Plains are mostly not cultivated, owing to the impossibility of profitable cropping without irrigation and the absence of an immediately available gravity water supply.

While, aside from on Sacramento River, no stream gagings are available for this territory, there is ample water at hand, if storage is feasible, for irrigating all of the valley land present, either by gravity flow or by pumping. The streams considered above are all perennial and largely within economical reach of the lands to which they are tributary. All of the bottom lands here are not greatly in need of more water, the normal rainfall at Redding, based on a 26-year record, being 36.11 inches and that at Red Bluff being 26.11 inches. With such annual precipitation, in spite of the fact that the summers are dry, deep-rooting crops generally receive ample moisture. The higher lands now devoted to grain growing, however, can and eventually will be made to produce the more valuable crops that irrigation will benefit. Power filings and contemplated development on the streams in this area contribute an element of uncertainty as to their ultimate use for irrigation.

HAPPY VALLEY AREA.

This includes, roughly, 62,000 acres of rolling and elevated plains west of Anderson between Cottonwood and Clear creeks. While known as Happy Valley, the area contains no real valley land and is rather a ridge than a valley. The soil is a gravelly loam underlain at varying depths with hardpan and cut at frequent intervals along the edges of the area with small dry gullies. The section has been crippled by fumes from the copper smelters at Keswick, Coran, and Kennett, both native and planted vegetation having been affected prior to the control of the smelter fumes under court orders. The crops grown are olives, peaches, berries, and vegetables, all mostly irrigated. The present water supply is mainly furnished from North Fork of Cottonwood Creek by Happy Valley Land and Water Company, which at present irrigates 1,578 acres. This company is a coöperative irrigation association that succeeded to the field of the Happy Valley Irrigation District when it failed of organization in the nineties. The water conduit in use is that of an old mining company, whose rights the present company purchased. Another small coöperative association irrigates 50 acres near Ono through Bee Creek Ditch. The areas these two ditches are claimed to be intended ultimately to cover are 20,000 and 300 acres, respectively. Under Bee Creek Ditch, however, a considerably larger area might be irrigated under less wasteful use than now occurs.

Besides North and Middle forks of Cottonwood Creek, Bee Gum, Jerusalem, and Clear creeks are the streams tributary to the Happy Valley area. Clear Creek is now used in summer for irrigating 1,100 acres under the Townsend Flat Ditch, in the Redding Area, but with storage and economical use part of its flow could be made available to Happy Valley. Middle Fork of Cottonwood Creek and the main Cottonwood below the forks could most economically be used on the bottom and low bench lands along the latter stream, but if not used there it is feasible to carry water from the north fork to Happy Valley. Unfortunately no gagings are available for any of these streams. Without storage, but little irrigation increase is likely, but with storage feasible, as to which no data are available, much additional development would be possible. If the expense of diversion from Sacramento River near or above the mouth of the Pit were justified, water for at least all of the lower portion of the area would be available there.

WEST SIDE OF SACRAMENTO VALLEY.

RED BLUFF-CORNING AREA.

This comprises 87,000 acres of valley land and 137,000 acres of plains on the west side of Sacramento River in Tehama County, from Red Bluff south to the Tehama-Glenn County line. Local drainage from the coast range hills yields a considerable run-off of largely torrential character chiefly through Toms, Elder, Red Bank, and Read creeks. No gagings are available for these streams, but none of them carries summer flow of consequence, Toms Creek being the most productive. A reservoir site of 45,000 acre-feet capacity is said to be at hand on Elder Creek and several others are reported, one of which was noted by the Geological Survey.[1] One is claimed to be located near Newville, to which waters of Toms, Grindstone, and Little Stoney creeks are claimed to be tributary, but no reliable data are at hand to demonstrate its value. In general it may be said that pumping from underground sources for the higher valley lands about Corning and from Sacramento River for the Sacramento River bottoms must be the chief means of bringing water to the area. Eventually, however, it would appear that a high-line canal from Sacramento River above Red Bluff will furnish water to the lands on which its use is justified that are not otherwise supplied; also that whatever storage is found feasible on the torrential creeks mentioned will be utilized and the present small use on those streams thereby increased. As some of the higher plains of the Red Bluff-Corning area are of low agricultural value owing to the outcropping of hardpan and the closeness of cemented strata to the surface, the assumption is reasonable that, although nearer to a water supply than the plains farther south, they will be later watered.

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[1] U. S. Geol. Survey Water Supply and Irrig. Paper No. 86.

Excepting immediately along Sacramento River and west of that river above Tehama, agricultural production is at present relatively not extensive in this area. All of the valley land and most of the plains was, however, originally devoted to grain growing. Later the higher valley lands and some of the plains were set out to orchards, but as the necessity for irrigating these orchards was not appreciated and proper care was not given to them, many were abandoned and now furnish clear proof that successful farming here depends upon water. At present irrigation is mainly in four sections—along Sacramento River near Tehama, where about 1,000 acres of alfalfa are watered; in Richfield colony, where 1,700 acres are irrigated from two ditches of the Corning Irrigation Company; in the Maywood Colony about Corning, where 172 pumping plants supply 1,367 acres; and in the Richfield lands south of Toms Creek and south and east of Richfield, where water is being developed from wells for approximately 5,000 acres, of which only a small portion were irrigated in 1912. Additional irrigation of small areas is found along Toms and the other creeks. When crops are irrigated in this area their yield is highly satisfactory, and in some cases yields have been found profitable without irrigation. The plantings of orange, lemon, olive, and of almond, peach, prune, fig, and other deciduous trees have proven the adaptability of the uplands of this area to fruit growing, and where additional water is brought in, such cultures are likely to predominate.

ORLAND AREA.

This area lies immediatedly south of the Red Bluff-Corning area, extending from the Glenn-Tehama County line to an east and west line 5 miles south of Orland. The area scales to 79,000 acres of valley and 32,300 acres of plains, of which 5,300 acres were reported irrigated in 1911. Of this, 2,600 acres were alfalfa, gardens, and young orchards under the Orland Project, 2,500 acres were sugar beets irrigated by the Sacramento Valley Sugar Company from pumps on Sacramento River, and 200 acres, mostly alfalfa, were irrigated by pumping from the overflow of Stoney Creek. This is the only area north of Woodland area that is fed by a substantial west-side stream, the source here being Stoney Creek. North of Stoney Creek the area comprises an undulating valley or semi-plains area of gravelly loam, while south of it the soil is partially similar and partially more sandy, becoming heavier near Sacramento River. West of Orland the better bare rolling plains begin, extending south through the area.

Stoney Creek has been carefully studied for its storage possibilities by the Reclamation Service, and East Park Reservoir, with a capacity of 26,000 acre-feet, has been built. Other sites surveyed by the Reclamation Service are Briscoe site, with a capacity of 14,385 acre-feet, and Mill site, with a capacity of 43,735 acre-feet.[1] Stoney Creek tributary to these reservoir sites drains 735 square miles of Coast Range hills through a north and south valley lying about twelve miles east of the Sacramento Valley floor. The discharge recorded at the Geological Survey gauging station west of Fruto shows a mean annual flow from 1901 to 1910 of 581,000 acre-feet.[2] Approximately 80 per cent of the total drainage of Stoney Creek lies above Fruto. With complete utilization of mean spring and early summer flow available for direct diversion without storage, approximately 90,000 acre-feet, there is surface water available on a gross duty of 3 acre-feet per acre for approximately 65,000 acres of land, or on a gross duty of 2 acre-feet per acre for over 90,000 acres. This, however, would require diversion capacity greater than is reasonably likely. As at present constructed, Orland Project of the Reclamation Service covers only 14,000 acres. Central Canal of the Sacramento Valley Irrigation Company passes through the Orland area near its eastern edge and might irrigate the land adjacent to it, and additional land will be watered from the pumping plants of the Sacramento Valley Sugar Company at Hamilton. As, in addition to Stoney Creek and Sacramento River, water-bearing gravels underlie much of the Orland area, with usual lifts of only about 20 feet, it is reasonable to assume a water supply for the entire valley area, and so much of the plains as it is later found feasible to cover from Sacramento River. But very little land in this area is subject to overflow. The crops irrigated are all of those common to Sacramento Valley, from citrus fruits to alfalfa. No extensive citrus planting have been made, but several small orchards show adaptability. Most of the present irrigated holdings in Orland Project are small and not yet far advanced, although water has been supplied for some years to some of the lands in the project through two canals from Stoney Creek that were taken over by the Reclamation Service.

STONEY CREEK AREA.

While not properly part of Sacramento Valley, this area is better described here than elsewhere. It consists of scattering pockets of valley land along Stoney Creek before this creek enters Sacramento Valley. The valley has an approximate length from East Park Reservoir of 35 miles with a maximum width of 7 miles at Elk Creek. According to information furnished by the Reclamation Service, 38 diversions from Stoney Creek above the Orland Project headworks, with a total average discharge of 88 cubic feet per second, irrigated 1,550 acres in 1911, of which approximately 950 acres were near Stoney Ford. The crop irrigated is practically all alfalfa. An additional 700 acres are reported irrigated on the tributaries of Stoney Creek. Owing to the roughness of the valley and opportunities for using the water of Stoney Creek in Sacramento Valley, but little irrigation extension can be expected here. The total area of valley land is roughly estimated at 3,000 acres.

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[1] U. S. Reclamation Service, 5th Annual Report, and U. S. Geol. Survey Water Supply and Irrig. Paper No. 86.

[2] U. S. Geol. Survey Water Supply Paper No. 298.

WILLOWS AREA.

This area includes 186,000 acres of valley and 40,000 acres of plains in Glenn County south of the Orland area and north of the Glenn-Colusa County line, not including the small area in Glenn County east of Sacramento River and west of Butte Creek. The valley land in this area has an even slope except in the southern portion, which is at the head of Colusa basin and very flat. In general, the soil in the southern portion is clayey, varying from adobe to silty clay loam; in the northern portion, it is a gravelly or sandy loam. Alkali occurs south of Willows in the central portion. The plains in the area are bare and rolling as in the Orland area, but in contrast with those in the Orland area, they lie entirely west of the valley lands. The slopes closest to the valley only are now cultivated, and none are irrigated.

The local watershed west of Willows area is 220 square miles in extent, but the run-off from this finds its outlet only in numerous minor streams yielding torrential flow and losing themselves in Colusa Basin, and is therefore only available, where available at all, as underground flow. The available water supply is, therefore, Sacramento River or underground sources, with some surplus from Stoney Creek, part of which is now diverted in spring by Central Canal. Extensive pumping development has not yet occurred, but several plants are operating above the line of the Central Canal, and the underground sources, for both valley and plains, can be considered as sure to yield large supplies. The Sacramento Valley Irrigation Project now covers from 90,000 to 100,000 acres, including their land in Colusa area, with ultimate enlargement likely. Approximately 8,000 acres of this were irrigated by the entire system in 1911 and 13,000 acres in 1912. Of this total, about 6,000 acres were in the Willows area. For the land west of Central Canal, water will eventually be brought from Sacramento River by diversion higher than that of the present system, as at Iron Canyon; or possibly from the larger tributaries of the Sacramento above Iron Canyon, the water in the latter case to be carried by expensive construction along the western edge of the flatter plains and pumped from there to the higher areas. Extension of the Orland Project southward or the utilization by other means of the additional storage capacity on Stoney Creek would also accomplish this. It is believed that the entire Willows area, less the acreage now comparatively valueless on account of alkali, can be assumed as irrigable, and that it will ultimately all be irrigated. The portion of this area that is subject to overflow during high water in Sacramento River at present approximates 21,000 acres, but it is assumed that this will eventually be eliminated by adequate dyking.

The irrigated crops now grown in the Willows area comprise all of those common to Sacramento Valley. The irrigation system now in operation is the beginning of large development on the west side. It was a part of this area that Central Irrigation District, organized in 1887 but never in successful operation, was intended to cover, and for which Central Canal, now owned by the Sacramento Valley Irrigation Company, was largely constructed. Here the numerous problems common to west-side development under irrigation will be encountered, including diversion and pumping from Sacramento River, protection of lowlands from overflow, drainage and reclamation of the swamp and alkali areas, control of the surface drainage from the west-side foothills, getting water to the west-side plains, and the other problems connected with the sucessful working out of any large irrigation project.

COLUSA AREA.

This area covers the land in Sacramento Valley in Colusa County west of Sacramento River, scaling to 330,000 acres of valley floor and 39,000 acres of plains, and including the main portion of Colusa Basin. The soil is similar to that of the Willows area, with clay types predominating. A large part of the area is in Colusa Basin and, therefore, in need of drainage and flood protection. Approximately 68,000 acres in this area in Davis, Munson, and No. 108 reclamation districts and under private levees about Grimes have already been dyked and reclaimed. The general plan of flood control for Sacramento River proposed by the California Débris Commission includes a drainage canal from Colusa to Yolo Basin, which is intended eventually to relieve most of the remaining land needing drainage. The amount of land irrigated in the Colusa area in 1912 by the Sacramento Valley Irrigation Company approximated 7,000 acres. The acreage watered by this company is being rapidly increased through extension of Central Canal, which already reaches as far south as Cortina Creek. Irrigation adjacent to Sacramento River and east of the valley trough formed by Colusa Basin is effected by pumping from the river or by admitting water to adjacent land through cuts in the levee, and development of this character will continue and, with complete dyking of the river and the augmenting of its supply by storage above, will eventually cover all of the agricultural land present. Colusa Irrigation Company, the Roberts Ditch Company, and the Reese tract, all near Colusa, were reported as together irrigating 875 acres from Sacramento River when the irrigation census was taken in 1910, with 3,450 acres as the total ultimate area these three small enterprises are to cover.

Aside from Sacramento River there is no stream of consequence tributary to Colusa area. The local drainage on the west approximates 300 square miles, but the run-off from this is largely torrential and not susceptible of being controlled for irrigation. West of Maxwell the first planting of citrus orchards on the rolling west-side plains is under way, with the water supply being pumped over 2 miles and lifted 230 feet from Central Canal, about 45 miles below its intake. The land being so planted is typical of the high rolling plains extending from Stoney Creek to Woodland. The expenditure of about $70 per acre for underground pipe distribution to the plantings and the lifting of water 230 feet, which will be increased next year to 300 feet, is indicative of the faith being shown by experienced irrigators in the value and irrigability of these high areas. Two hundred and fifty acres of citrus trees are out here and being watered during the present year, with an equal acreage being planted elsewhere in the valley by the same interests, the total contemplated planting being 10,000 acres.

WOODLAND AREA.

This area includes the valley and valley plains in Yolo County, extending both north and south of Cache Creek, and aggregating 400,000 acres of the former and 78,000 acres of the latter. The drainage tributary to the area consists of 180 square miles of local watershed in addition to 1,200 square miles of watershed tributary to Cache Creek, of which 500 square miles are above the outlet of Clear Lake. Putah Creek, whose possibilities for use in irrigation are discusssed under the Solano area, borders Woodland area on the south and could be used for irrigating land in the Woodland area if not used elsewhere. In addition Sacramento River borders the area on the east. The run-off from the drainage of the Woodland area, other than Cache Creek, is torrential and without definite channels of importance, so that it can not be considered to any extent for irrigation purposes. The run-off from the Cache Creek watershed is important and has been measured for some years by the Geological Survey, which has maintained stations both at the outlet of Clear Lake, at Lower Lake, and at Yolo. The mean annual run-off at Lower Lake from 1901 to 1910 was 385,000 acre-feet, the minimum being 189,000 acre-feet and the maximum 729,000 acre-feet.[1] The possible storage that has been considered in this drainage is at Clear Lake and in Little Indian Valley.[2] Storage in Clear Lake has been discussed for many years, but without development, owing to property complications along its shores.[3] The mean area of the lake is about 40,000 acres. It has been estimated that from 100,000 to 200,000 acre-feet can be economically stored in this reservoir, the amount depending on property adjustments along the lake shore. The estimated possible storage in Little Indian Valley, which lies on the North Fork of Cache Creek, is 50,000 acre-feet, although the reservoir as surveyed would have a capacity of 76,500 acre-feet. Other storage is possible, according to investigations by the Geological Survey in connection with their survey of Little Indian Valley in 1900, but due to uncertain water supply or expensive construction this has not been seriously considered thus far. If storage were feasible for the entire flow of Cache Creek and tributaries, sufficient water would be available for a very large area. The mean annual run-off at Yolo, which is situated well into the valley floor and below present diversions, has been found by the Geological Survey measurements from 1903 to

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[1] U. S. Geol. Survey Water Supply Paper No. 298.

[2] U. S. Reclamation Service, 5th Annual Report; U. S. Geol. Survey Water Supply and Irrig. Paper No. 45. For general discussion of irrigation and water-right conditions on Cache Creek see U. S. Dept. Agr., Office Expt. Stas. Bul. 100.

[3] Since this was written, new interests that have purchased the Yolo County Consolidated Canal have been purchasing rights along Clear Lake prior to developing the lake for reservoir purposes.

1910 to be 695,000 acre-feet, the minimum being 250,000 acre-feet and the maximum 1,280,000 acre-feet.[1]

The present reported irrigated area along Cache Creek is 14,570 acres, the supply for most of which is obtained from Cache Creek, the irrigated crops being alfalfa, sugar beets, deciduous and small fruits, and graden truck. Thus far the water supply made available to the area during the summer months has been very limited, owing to the failure on the part of the company controlling the Cache Creek canals to build permanent diversion works. The result has been that irrigation water has sometimes not been available to those under the canals until late in the summer. Within the summer of 1912 the entire irrigation system taking water from this creek has been acquired by new interests who propose to develop the available water supply fully, in connection with power also, farmers under the system having purchased water rights on an acreage basis to the extent of 50,000 acres at the rate of $20 per acre.

That the possibilities for large irrigation development on Cache Creek are great is indicated by the water supply data above cited. The water supply usable directly for irrigation from the creek during the years of even minimum flow is large. If 200,000 acre-feet could be stored in Clear Lake and 50,000 acre-feet in Little Indian Valley, the total area that might be served under a gross duty of 3 acre-feet per acre would exceed 83,000 acres above the present irrigated area. This would not include the extra supply usable by direct diversion during normal years and years of excessive flow, nor the supply available by pumping from underground sources. If only 100,000 acre-feet can be stored in Clear Lake, this increase would be 50,000 acres without considering extra water available in the irrigation season and pumping. If the gross duty could be reduced to 2 acre-feet per acre, the additional irrigable area would exceed 125,000 acres with 200,000 acre-feet stored in Clear Lake, or 75,000 acres with that storage only 100,000 acre-feet. Irrigation by pumping is already beginning to supplement that from canals and will increase considerably in the future. North of Cache Creek the water-bearing gravels appear to occur irregularly, making the supply to be obtained from wells uncertain. In the southern portion of the area the underground supply has been found to be more regular, but thus far no large development by pumping has taken place except directly along the banks of Cache Crek, where some very large pumps have been installed for irrigating sugar beets.

The eastern part of the Woodland area extends into both Colusa and Yolo basins and is therefore subject to overflow. Reclamation of the overflow lands has been carried out in Yolo County in both of these basins, namely in reclamation districts 108 and 787 east of Colusa Basin above Knights Landing, and in Elkhorn and numbers 785, 811, 900, 742, 765, and 307 reclamation districts east of Yolo Basin, some of this, however, being now under way. The main by-pass of the proposed reclamation project of the California Débris Commission traverses the entire portion of Yolo Basin lying in this area, the overflow from all of the basins of the valley being collected into this by-pass between Sacramento and Knights Landing. While approximately 204,000 acres in Woodland area are now subject to permanent or temporary overflow, the non-agricultural area that will be left after completion of the reclamation project, assuming this to approximate the area between the by-pass levees, will be only about 50,000 acres.

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[1] U. S. Geol. Survey Water Supply Paper No. 298.

Irrigation from Cache Creek began in 1856 when construction was started on the old Moore Ditch, which has been the nucleus of the present canal system on this creek. Little irrigation was practiced, however, prior to 1864. Up to 1881 temporary brush dams were installed each year at the head of Moore Ditch, but in the latter year a more permanent wooden structure was built, this, however, lasting only five years. During this time, in addition to Moore Ditch, the Capay and Adams ditches had been built to cover large areas of grain lands, but these were abandoned as a result of extensive litigation over water rights. By sale and reorganization in 1903, all of the old canals passed into the hands of the Yolo County Consolidated Water Company, but as already indicated, this company did not establish its system on a sufficiently substantial basis to give adequate service. If the new interests that have recently taken over the properties of the Yolo County Consolidated Water Company accomplish maximum development along Cache Creek, agricultural conditions will be very different from those obtaining at present.

CAPAY VALLEY.

This area might properly be classed as part of Woodland area, although it was separated for purposes of investigation because of its isolation. The section included is the narrow valley along Cache Creek from Capay to Rumsey, with a total area of 10,000 acres. Only 160 acres are reported irrigated at present, this being chiefly alfalfa, and receiving most of its water from a small ditch out of Cache Creek near Rumsey. Some citrus fruits are raised in favored localities, although not yet on a commercial scale. The entire area can be supplied with water from Cache Creek either by gravity or pumping from the gravels near the creek bed. At present no extensive pumping is done away from the creek. Underground water is now found between Capay and Guinda at from 15 to 35 feet below the surface with a lift of 15 to 20 feet, these conditions having been noted in domestic wells only. The mean of the rainfall records for Rumsey, Guinda, and Capay shows a normal fall of 22.97 inches, which has been found sufficient for the successful growth of deciduous orchards, to which the upper portion of the valley is now devoted, although here as elsewhere in Sacramento Valley irrigation would be very advantageous in the dry summer months, especially in years of less than normal precipitation. It is believed that ultimately this entire valley will be watered, and the assumption seems reasonable that this could be accomplished without any large diminution of the water supply available to the Woodland area below.

SOLANO AREA.

This area extends from Putah Creek on the north and Sacramento River on the east to swamps and hills on the south and west, and contains 157,000 acres of valley agricultural land, exclusive of Sacramento River islands. In general, the area covered is the northeast part of Solano County, around the towns of Dixon and Elmira. The area reported irrigated in 1910 was 2,527 acres, the irrigated crops being a few tracts of deciduous fruits, alfalfa, and berries, wheat and barley being dry farmed. The local drainage tributary to the area is small and of low run-off yield, but Putah Creek, draining 800 square miles of rolling hills and higher mountains, is tributary to the north. A gaging station has been maintained on this stream at Winters by the Geological Survey since 1905 and the mean of five years' record shows an annual run-off of 515,000 acre-feet, the minimum year having 199,000 acre-feet.[1] In connection with their study of the proposed Sacramento Valley Irrigation Project, the Reclamation Service reported two available reservoir sites on this stream, at Guenoc and at Monticello.[2] The former of these sites has a surveyed capacity of 188,000 acre-feet and an estimated available water supply of 80,000 acre-feet. The Monticello site is near the lower portion of the stream and has a surveyed capacity of 130,000 acre-feet and can be filled annually. Putah Creek has a small summer flow, the discharge in the irrigation season in mean years being 52,000 acre-feet and in the minimum year only 14,300 acre-feet. The full run-off in minimum years could be utilized by the construction of the two reservoirs mentioned, and by using the excess capacity at Guenoc site the years could be partially equalized, giving more than 80,000 acre-feet annually available from the latter source. Discharge records kept by the Geological Survey at this reservoir for 1904–06 showed an excessive annual flow, but it has been estimated by the Reclamation Service that 80,000 acre-feet are annually available. With 130,000 acre-feet which could be stored in Monticello reservoir, 80,000 acre-feet from the Guenoc site, and the 14,300 acre-feet summer flow available in the minimum year of which records are available, the total surface water supply open to this area approximates 264,000 acre-feet, or sufficient for 88,000 acres under a gross duty of 3 acre-feet per acre, or 132,000 acres under a gross duty of 2 acre-feet. At present irrigation development is mainly by pumping from wells near Dixon and a few pumping plants from sumps on Putah Creek. The extent of underground water in this area has not been determined, but at present development is rapid and the supply is apparently sufficient for considerable increase. The present wells are from 90 to 110 feet deep, the water rising to within 15 or 20 feet of the surface. It seems apparent, therefore, that with full utilization of the present storage facilities and full development of underground water, all of the 157,000 acres of valley agricultural land in this area should be considered susceptible of irrigation. Approximately 51,000 acres are within the zone of permanent or temporary overflow, but the reclamation project that has been proposed will, using the same assumptions regarding the non-agricultural area that will remain after reclamation that have been used heretofore, be reduced to about 15,000 acres. Present reclamation in this area is not large and is mainly in Tyer and Sutter islands, between Rio Vista and Courtland.

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[1] U. S. Geol. Survey Water Supply Paper No. 298.

[2] U. S. Reclamation Service, 5th Annual Report.

VACA VALLEY.

This area comprises all of the well known Vaca Valley, of which Vacaville is the principal center. It is a small, narrow area, chiefly devoted to deciduous fruits, with alfalfa an incidental crop only. About 50 acres are reported irrigated. A 28-year rainfall record at Vacaville shows a normal fall of 27.84 inches. Irrigation is at present locally considered unnecessary. Eventually, however, it would seem as if the limited water supply available would be utilized. The watershed covers 35 square miles and would undoubtedly supply all the water needed for irrigation on the 7,000 acres in the valley proper if the storage were available for its conservation. There are no tributary streams of consequence, and for present purposes at least the only available water supply must be from pumping.

SUISUN AREA.

This area includes the valley agricultural land in southwest Solano County and extends from Laurel Creek on the east to marsh lands on the south and hills on the north and west, containing in all 30,000 acres. This is an evenly-sloping plain of heavy clayey soil. The principal crops now grown are deciduous fruits, with 278 acres reported irrigated in 1909. The area above the valley land is to some extent dry-farmed to grain. No streams of importance enter the area, the local water supply being derived from 100 square miles of bare rolling hills, giving a torrential run-off of generally small volume. The underground water has not been tested for quantity, but unless it is found sufficient it would seem that if irrigation is resorted to here the principal water supply will need to be brought from other than local sources, such as storage water from Putah Creek in the north. The present small area irrigated is mainly from wells, as irrigation for the fruit now raised is considered locally to be unnecessary, the annual rainfall averaging over 20 inches. Extensive irrigation is hardly to be expected here, yet the present small irrigated area will be increased.

EAST SIDE OF SACRAMENTO VALLEY.

RED BLUFF-VINA AREA.

This comprises 34,500 acres of rich valley land and 29,000 acres of plains east of Sacramento River from Red Bluff south to the Tehama-Butte County line. This section has been the location of several of the famous ranches of Sacramento Valley, including the Cone Ranch near Red Bluff, the Los Molinos Ranch opposite Tehama, and the Stanford Ranch at Vina. These large holdings have retarded extensive irrigation, but subdivision and development of small irrigated farms have at last started, and, in 1912, 9,600 acres are being watered. Of this, 260 acres are reported under the flume of the Diamond Match Company, and near Sacramento River southeast of Red Bluff 840 acres are on the Cone Ranch, 5,500 acres in the subdivided Los Molinos holdings, and 3,000 acres on the Stanford Ranch at Vina. In this area are three important perennial creeks, viz., Antelope, Mill, and Deer creeks, and an additional water supply is available from underground sources and from Sacramento River. No gagings are available for the east-side streams except Mill Creek, but eleven measurements made by the Geological Survey on that stream at the Los Molinos dam from August to December, 1909, showed a mean flow of 215 cubic feet per second, 207 cubic feet per second being the minimum. All of this creek is claimed for the Los Molinos holdings. The tributary drainage of Deer Creek is 192 square miles and the entire flow is claimed by the Stanford Ranch. Antelope Creek and tributaries are wholly claimed by the town of Red Bluff and the Cone Ranch. Counting Sacramento River, the water supply is more than ample for this entire area, but the use of the Sacramento here, other than by pumping, would involve the proposed diversion at Iron Cañon. The main crops now grown are the usual grains and irrigated alfalfa, with a large acreage of vines on the Stanford Ranch. In the Los Molinos section and elsewhere after subdivision and the provision of an irrigation supply, alfalfa, deciduous fruits, and the miscellaneous crops common to diversified farming in California will be the ones grown and watered. The portion of this area nearest to Sacramento River is thickly dotted with large oaks and thus exhibits a landscape of natural beauty. The productiveness of the soil here, as well as along almost the entire stretch of Sacramento River bottoms from Red Bluff south to the swamp lands, and a normal annual rainfall varying from 23.39 inches at Chico to 26.11 inches at Red Bluff, have resulted in profitable grain farming and considerable successful deciduous fruit growing without irrigation. The limits of dry farming, however, even in this area, or at least the greatly increased crops and the larger opportunity for diversifying production under irrigation, have established the fact that little material advancement over past conditions is possible without artificial watering. How striking this fact is is amply proven by the contrast observed in the summer of 1912 between the vast unirrigated grain fields of the Cone Ranch, which are as they have been for over fifty years, and the subdivided areas of the Los Molinos holdings immediately adjoining on the south, where twenty new and mostly modern small farm houses were noted within what appeared to be a single square mile.

CHICO AREA.

This covers 138,000 acres of valley and 15,200 acres of valley plains in Butte County, south of the Tehama County line, east of Sacramento River, north of Butte-Glenn County line, and west of Butte Creek and the lava foothills north of Chico. The present irrigated area here is reported as only 800 acres, this being mostly covered from pumps along the streams, chiefly Chico Creek and Sacramento River. The irrigated crops are alfalfa, a few orchards, and hops, the latter on bottom lands northwest of Chico. A considerable portion of this area is subject to overflow from Sacramento River and its tributary creeks, so that drainage is more of a problem on the lower lands than irrigation. According to best available data, 38,000 acres east of Sacramento River and mostly south of Chico are within the boundaries of the lands subject to temporary overflow. A very large proportion of the land of this area is still in the large holdings of the early California farming days. Numerous local streams are tributary to the Chico area, but the main water supply for irrigation must come from underground sources, Sacramento River, and Chico and Butte creeks. The two latter streams drain 230 square miles of the lower Sierra and furnish a considerable run-off, which with storage could be made to supply a substantial part of the agricultural land in the area. No gagings, however, are available for these streams, nor is information at hand as to possible storage. Private water claims on them would complicate their use in irrigation outside of on a few large holdings to which they have been attached. Also, along with other land in Sacramento Valley, on both east and west sides, this area could be covered by high-line diversion from the Sacramento. Bored wells, 40 to 60 feet deep, with lifts of from 20 to 30 feet, located in different parts of the area, are furnishing some irrigation supply. A 39-year rainfall record at Chico shows a normal annual precipitation of 23.39 inches. The richness of the soil, the moist conditions of the lower lands, and the adequacy of the annual rainfall for general farming, here as in the Red Bluff-Vina area has led to the popular conclusion that irrigation would not be beneficial, but recent irrigation development on the Los Molinos lands to the north, and the development of the past decade on the Feather River lands to the south, furnish examples of the benefits of irrigation whose force must be felt at Chico. While the entire valley acreage within this area will never be extensively irrigated because it is in no sense arid, time will demonstrate that the productions on the higher valley lands will be greatly increased with summer water, and when or before these are covered water is sure to be brought to such of the plains areas above as are fertile and arable but which are now used only for grazing. For these the only available extensive supply is Sacramento River.

GLENN-COLUSA EAST-SIDE AREA.

Both Glenn and Colusa counties extend east of Sacramento River to Butte Creek and form a relative narrow area of 82,500 acres of which a considerable portion is subject to overflow. No irrigation is reported for this area. Whatever water supply is needed for irrigation can readily be obtained from underground or from Sacramento River. Throughout the north and south distance a strip from 1 to 4 miles wide consists of marshes, ending in the southern end opposite Colusa in Butte Sink. The higher lands in this area are those bordering Sacramento River and Butte Creek. Of the cultivable area, 21,000 acres are in the large Moulton Reclamation District. The proposed by-pass through Butte Basin bisects the portion of the area in Colusa County, leading thence southwest of Marysville Buttes into Sutter Basin. With Sacramento River, Butte Creek, the streams about Chico, the proposed by-pass adequately leveed, and the lowlands drained, the agricultural area in these eastern portions of Glenn and Colusa counties would approximate 70,000 acres, all irrigable to the extent irrigation is necessary.

FEATHER RIVER AREA.

This is one of the most important irrigation areas in northern California and one of those selected for detailed study of use of water during 1912. Not only is Feather River, which feeds this area, one of the largest of the Sacramento River tributaries, with extensive areas of foothills, plains, and valley subject to its water supply, but within its zone irrigation has developed farther than in any other Sacramento Valley area of equal acreage. Here are combined the complexities of flood-protection, drainage, irrigation, mining, and hydroelectric power in such a way as to typify the larger development problems of Sacramento Valley.

The valley and plains in the Feather River area approximate, respectively, 266,000 and 86,000 acres. Of this, 236,000 acres of valley and 37,000 acres of plains are between Feather River and Butte Creek, and 30,000 acres of valley and 49,000 acres of plains east of Feather River. The portions of the entire area that are subect to temporary overflow, and that are therefore in need of further protection, cover approximately 52,000 acres along Butte Creek on the west and approximately 12,500 acres east of Feather River between Honcut Creek and Marysville, not counting 3,500 acres east of Feather River included below in the Yuba area.

It is stated above that Feather River is one of the larger Sacramento River tributaries. Discharge records kept at Oroville from 1902 to 1910 by the Geological Survey show a mean annual run-off at that point of 6,020,000 acre-feet, the minimum year giving 3,490,000 acre-feet and the maximum 9,340,000 acre-feet.[1] An examination of reservoir sites was made by the Reclamation Service,[1] and several having a total capacity of 1,879,209 acre-feet were found, for which the annual available water supply was estimated as 1,649,385 acre-feet. This storage includes 22 reservoirs with a total capacity of 87,000 acre-feet, which were built for mining purposes, the Big Meadows site on the North Fork of Feather River, controlled now by the Great Western Power Company, and having a surveyed capacity of 780,384 acre-feet,[2] and the Valley site on Indian Creek, where it was estimated 500,000 acre-feet could be stored. With a recourse to stored water in August and September only, and utilization of the quantity directly available in mean years during the irrigation season, April to September, that could be diverted by a total canal capacity of 2,500 cubic feet per second, a total of 915,000 acre-feet would be available or sufficient for 305,000 acres on a gross duty of 3 acre-feet, and for 467,500 acres on a gross duty of 2 acre-feet.[3] With a total canal capacity of 5,000 cubic feet per second, and recourse in mean years to storage in July, August, and September, 610,000 acres could be irrigated on a gross duty of 3 acre-feet per acre, and still leave a surplus of more than one million acre-feet of water in the various reservoirs, provided they were fully developed.

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[1] U. S. Geol. Survey Water Supply Paper No. 298.

While Feather River carries water in excess of the needs of the land directly tributary to it, so that a supply is available for the section northwest of Butte Creek, if taking it there is found economical, not all of the land to be irrigated in this area will receive its supply from the Feather. Honcut Creek and tributaries, entering the Feather below Oroville, already irrigate a small acreage, and it is possible that storage will be found on them to hold some of the drainage from the tributary watershed. Filings have been made for storage here, but no exact data are at hand as to the presence of reservoir sites, and it is not likely that any of importance are at hand. In the lower portions of the area underground sources are sure to be increasingly drawn on as Feather River power is more fully developed and made available at lower rates for pumpings. The extent of economical use possible from the Feather east of its channel is problematical, the main river branching above Oroville, and its Middle and North forks being difficult of access for the higher lands there, except by pumping. At present, all of the low water flow in South Fork is being utilized on these east-side lands. While some storage is probable here, its extent and economical value are not known. There is little likelihood that enough is available here or on the tributaries of Honcut Creek to cover all of the irrigable land on the east side; consequently, if the entire 79,000 acres of valley and plains is to be irrigated, part of the supply must be carried entirely by gravity or be pumped from the Feather below its forks and then led by gravity to the necessary points of distribution. A part also is likely to be watered by gravity diversion near the head of Butte County Canal. A similar situation exists west of the main Feather. Development now under way will utilize all of the low flow at Oroville and increases above the existing projects must involve both storage and pumping below and probably also above Oroville. That this will ultimately be resorted to both here and on the east side there can be little doubt. The Feather River Canal Company already contemplates two lifts of 20 feet each from its main canal to cover an estimated 17,500 acres. The available hydroelectric power on the Feather and its branches is enormous and is sure to be available, owing to the relatively short transmission necessary, at rates that will justify such use of it. If present development in progress on Big Meadows Reservoir is completed, the low flow of the river above Oroville will be increased, according to the plans of the Great Western Power Company, to 2,500 cubic feet per second. The water thus made available can only be utilized either by pumping, as suggested, or high-line construction of all-gravity canals that is likely to be so much more expensive than part pumping and part gravity diversion as to make the latter the more economical. The announced plans of the great Western Power Company include the use of the water impounded in Big Meadows Reservoir for irrigating 200,000 acres of land below Tehama, but it is not known that plans for such development are beyond the formative stage.

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[1] U. S. Reclamation Service, 4th and 5th Annual Reports.

[2] It is proposed by the Great Western Power Company, who now control Big Meadows, to construct their dam to a height of 110 feet, which is said will give a capacity of 1,250,000 acre-feet, and cover an area of 40 square miles.

[3] This would assume filling the reservoirs outside of August and September.

Present irrigation in the Feather River area is chiefly under Butte County Canal, which in 1912 watered 14,000 acres, mostly in alfalfa and deciduous fruits, in the valley west of Feather River; under the reservoir and pipe-distribution systems of the Oroville Water Company and the Oro Water, Light, and Power Company, which in 1912 delivered water to 810 acres, principally in olives and citrus fruits, in the vicinity of Thermalito; and under the system of the Palermo Land and Water Company, which in 1912 irrigated 1,880 acres, mostly in oranges, olives, and peaches, in the Palermo Colony. An additional scattering area of about 500 acres is irrigated from Honcut Creek, by pumping from Feather River, and from wells, making the total for the area 17,190 acres. The Butte County Canal is intended ultimately to cover 200,000 acres. An additional large canal is now being constructed by Feather River Canal Company from Feather River about Butte County Canal, this being intended to cover probably 30,000 acres by gravity and an additional area by pumping from the canal to the plains near Tres Vias, as already indicated.

SUTTER BASIN AREA.

This comprises 158,000 acres of valley south of Marysville Buttes and Marysville and between the Feather and Sacramento rivers, in Sutter County, about 16,000 acres of which are in Reclamation District No. 70, 46,000 acres in Reclamation District No. 1, and 6,300 acres under private reclamation. A considerable portion of the area is occupied by Sutter Basin, 31,000 acres of which are classified on the latest topographic map as marsh, and 116,000 acres are subject to overflow.

Bordering Sacramento River, the land is 12 to 15 feet higher than in the trough of Sutter Basin, as it is along the Feather River on the west. The Sutter Basin by-pass proposed by the California Débris Commission traverses the entire length of this area, gathering the overflow from Butte Basin west of Marysville Buttes and delivering it to the Sacramento at the mouth of the Feather. While the higher portions of this area may reasonably be classed as irrigable, it is plain that throughout the area the question of drainage is more serious than that of irrigation. .There is apparently no necessity for bringing gravity water to this section, and the ultimate desire will probably be to entirely confine Feather River within its channel—it is now leveed on its west bank—and to develop by pumping all the water that is necessary for irrigation. Only 218 acres are reported irrigated here now. When the reclamation proposed by the California Débris Commission is completed, the agricultural area here will approximate 130,000 acres.

YUBA AREA.

This covers the land north of Marysville tributary to Yuba River and the area between the Yuba and the Bear east of the Feather, the valley land approximating 113,000 acres and the plains 14,500 acres. Approximately 36,000 acres are subect to overflow, part of which has been included in reclamation districts 784 on the Feather and 817 north of the Bear at Wheatland. The entire area is in Yuba County, and the crops grown are chiefly grains, with some alfalfa along the river bottoms and a considerable area of hops north of Bear River near Wheatland. Much the plains area is now in pasture. Outside of 15,000 to 20,000 acres of hydraulic mining debris between the levees near Marysville, the soils of the area are similar to those of other east-side areas already discussed, varying from sandy and silty loams and clays near the Feather to the red gravelly uplands of the plains. The water supply of the area is Yuba and Bear rivers and underground sources. Discharge records of the United States Geological Survey from 1903 to 1910 show a mean annual flow in the Yuba at Smartsville of 3,220,000 acre-feet, the minimum year giving 1,590,000 acre-feet and the maximum 4,560,000 acre-feet.[1] Storage for power for mining was constructed prior to 1900 to the extent of 112,000 acre-feet,[2] and additional storage has been and is now being built. The Oregon House Valley site on North Fork of Yuba River is reported by the United States Reclamation Service to have a capacity of 90,823 acre-feet, with its full capacity available above it.[3] Lake Spaulding reservoir of the Pacific Gas and Electric Company on South Fork of Yuba is now being increased to hold 91,800 acre feet, which will be carried to the Bear in the course of its use in generating power, as indicated in the discussion of the northern Sierra foothills. It is not possible to figure now on the ultimate place of use of this water or what proportion will be used in the valley and what proportion in the Placer County fruit districts above, but it is evident that the storage now or likely to be available on the Yuba, and the amount of water carried by that stream during the irrigation season, insure eventually a complete supply to the lands of the area needing irrigation and that will not be supplied by pumping and by the minor streams. Carrying water from the Yuba to the Bear is also likely to result eventually in using some of this supply in the area between the Bear and the American.

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[1] U. S. Geol. Survey Water Supply Paper No. 298.

[2] U. S. Dept. Agr., Office Expt. Stas. Bul. 100.

[3] U. S. Reclamation Service, 5th Annual Report.

Present irrigation in this area covers 3,000 acres under Hallwood Ditch, 640 acres under Stall Ditch, both from the Yuba north of Marysville; and, according to the irrigation census, 546 acres scattering. Hallwood and Stall Ditches have a common diversion in the Yuba at Daguerre Point weir and are together intended ultimately to water 10,000 acres.

SACRAMENTO-LINCOLN AREA.

This comprises 246,000 acres of valley and 94,000 acres of plains south of Bear River, east of Feather and Sacramento rivers, and north of American River, in Sutter, Placer, and Sacramento counties. A feature of this area is American Basin, which extends along the east bank of Sacramento River directly north of Sacramento. The reclamation of this basin and of a strip of land north of it along Feather River and along the south bank of the Bear, aggregating 85,000 acres in reclamation districts Nos. 1000 and 1001, is in progress by the Natomas Consolidated Company. This company proposes, after reclamation is effected, to provide such water as is necessary for irrigation from Feather, American, and Sacramento rivers and to subdivide the land into small farms. The reclamation, and necessary irrigation, of the entire western part of this area being thus provided for by interests sufficiently strong to complete them, the concern of the public is chiefly in the eastern part of the area from American River west of Fair Oaks Colony northward through Antelope, Roseville, Lincoln and Sheridan to Bear River. The land in this section aggregates 215,000 acres, largely plains, that portion generally east of the Southern Pacific Railroad being to a considerable extent of the hog-wallow type and used mainly for pasture. Outside of pumping from underground sources and from Feather and Sacramento rivers for the Natomas lands, if this is resorted to, as seems likely, the water supply tributary to the Sacramento-Lincoln area must mainly be that of the Bear and American rivers. Gaging stations have been maintained by the Geological Survey since 1904 on both of these streams, on the former 8 miles above Wheatland and on the latter at Fair Oaks.[1] The mean annual discharge of the Bear from 1904 to 1910 was 416,000 acre-feet, the minimum being 188,000 acre-feet and the maximum 726,000 acre-feet. For the same period the mean discharge of the American was 3,660,000 acre-feet, with a minimum of 1,450,000 acre-feet and a maximum of 5,710,000 acre-feet. No storage has been found on the Bear by the Geological Survey, but it is understood that private interests have located some sites which they propose to develop in connection with power. Also, as indicated in treating of the Yuba area, water stored on the Yuba is to be turned into the channel of the Bear. If this is done so as to increase the low-water flow of the latter, some water may thus be made available for use south of it on the lands of this area. One enterprise to accomplish this has been projected. Unless water stored on either the Yuba or Bear is available, but little further diversion for irrigation from the Bear can occur because the summer flow of that stream is small, and already the subject of litigation in connection with its use on hop fields about Wheatland.

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[1] U. S. Geol. Survey Water Supply Paper No. 298.

Considering this area with reference to a possible water supply from the American, conditions are equally problematical, although the American, like the Bear, is capable of irrigating a very large area with storage. Water is now being brought from North Fork of American River to 4,000 acres in the Orangevale and Fair Oaks colonies in the lower Sierra foothills, and those controlling this supply claim ability to cover land in this area as far north and west as Antelope. The North Fork, however, carries only a small summer flow, and extension of use beyond the lands already covered will involve reservoiring. To bring water from the main American will require either diversion some distance above Folsom, in which case lower power interests would have to be considered, or diversion below Folsom by pumping. While either or both of these plans may later be feasible, no data are at hand to indicate which will prove the more economical. The large amount of power that will be developed on the American, however, insures that extra-expensive all-gravity diversion is not likely. Although better sustained than the Bear, American River likewise carries a low summer flow only, the 1904-1910 mean for September being only 330 cubic feet per second. One reservoir site with a capacity of 65,952 acre-feet has been reported by the Reclamation Service at Greenwood, and the Geological Survey has said[1] that storage is feasible on Middle and South forks for power purposes. Full data, however, are lacking for a satisfactory estimate of possibilities on this stream. If sufficient storage can be found for the irrigation of 250,000 acres on a gross duty of 3 acre-feet per acre, only about one half of the total run-off in minimum years would be required. As the land south of American River is probably more easy to cover from that stream than the land north of it, the assumption seems warranted that a larger development from this stream will come there than in the Sacramento-Lincoln area. If complete study shows that but little water will be available from the Bear in summer through storage on that stream or on the Yuba, and if the course of development results in American River being mainly devoted to land south of it, irrigation in the Sacramento-Lincoln area must come largely through all-pump supplies. Some underground water is sure to be developed, as it has been already in scattered localities, and if the higher-priced orchard fruits can be produced successfully on the upper valley and plains lands east of the Natomas reclamation, pumping water eastward from the Feather and the Sacramento would not seem entirely beyond economical procedure for the future. At present, subdivisions are being sold east of Sacramento, as on the Haggin Grant, without a surface water supply, and efforts to obtain underground irrigation water are in some cases successful. The crops now grown in this area are chiefly grains, occasional patches of alfalfa on the moister bottoms, and numerous orchards about Roseville. The irrigated area is reported as only 225 acres. The soils are as a whole typical of Sacramento Valley, varying from deep alluvium near the rivers to cemented gravel in the plains, with much of the loam underlaid with tough hardpan.

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[1] U. S. Geol. Survey Water Supply Paper No. 271.

SACRAMENTO-GALT AREA.

This covers the section of Sacramento Valley south of American River and east of the Sacramento in Sacramento County, exclusive of the Sacramento River islands. Of a total of 344,000 acres, 236,000 acres are valley proper and 108,000 acres are plains. Of the valley land, 70,000 acres nearest Sacramento, Cosumnes, and Mokelumne rivers are within the area subject to temporary or permanent overflow. A total of approximately 26,000 acres along the east bank of Sacramento River is under full or partial reclamation, or in process of reclamation, in reclamation districts 673, 774, 745, 813, 755, 551, and 554, named in order down the river from Sacramento, and in district 1002, north of Mokelumne River. Another small reclamation district lies in the bend of American River immediately north of Sacramento River. Considering both proven underground and surface sources, the Sacramento-Galt area is one of the best watered sections of Sacramento Valley. Of 1,192 pumping plants reported for Sacramento County by the 1909 irrigation census, nearly all are within the area south of American River, the usual pumping lifts averaging 24 feet, and the number per square mile averaging over 10 on many sections. The flow of American River has already been treated with the area last above mentioned, the mean annual run-off at Fair Oaks having been shown to reach over three and one half million acre-feet. Although the mean summer flow of this river for September is only 330 cubic feet per second, some storage is quite sure to be found available. Cosumnes River, with a mean annual flow from 1907 to 1910 at Michigan Bar of 404,000 acre-feet, traverses the southern part of the area.[1] Comparison of the flow of the Cosumnes during this period with the flow of the Mokelumne for which a longer record is available, would seem to indicate that the mean for 1907-10 was about 15 per cent below that for the period 1904-10. For the period for which a Cosumnes River record is available, the discharge during the maximum year was 656,000 acre-feet and during the minimum year 151,000 acre-feet. Owing to the relatively low altitude of its basin, the summer flow of this stream is not well sustained, the mean discharge during August and September being less than 10 cubic feet per second at the gaging station of the Geological Survey. Therefore the use of this stream for irrigation in other than spring and early summer months depends on the amount of storage that can be developed. In addition to several smaller creeks from the east, a third stream available to this area is Dry Creek, forming part of its southern boundary. Discharge records kept on this stream by the California State Engineering Department from 1878 to 1884[1] showed a mean annual run-off of 172,000 acre-feet, but as this stream is generally dry from July to November, as indicated by the records quoted, its irrigation value also depends upon storage.

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[1] U. S. Geol. Survey Water Supply Paper No. 298.

Present irrigation development in the Sacramento-Galt area, in addition to that by pumping, is under the systems of the Natomas Consolidated Company, near Folsom and Natoma, and of the Cosumnes Irrigation Company, which was irrigating 300 acres on Cosumnes River bottoms when the irrigation census of 1909 was taken. Irrigation by the Natomas Consolidated Company is through extensions of the old Natomas mining ditch and aggregated 1,400 acres in scattered patches in 1912, irrigation under this ditch being incidental to gold dredging in the American River bottoms. This company, however, has a project involving the watering of 30,000 acres south of American River, the supply for which is to be furnished (1) by the present Natomas Ditch, (2) by a pumping plant at Alder Creek now in course of construction and designed to water 8,000 acres, and (3) by the construction of a reservoir on Deer Creek, a tributary of Cosumnes River, said to be capable of holding a maximum of 35,000 acre-feet. The irrigation by pumping in this area, as already indicated, is of first importance, as it is likely to be for much of the area in the future. Of 11,300 acres irrigated here by that means in 1909, some received its water from streams, including the Sacramento, but most of it was supplied from wells, the motive power in many cases being gasoline engines and windmills. During the past year a power line has been extended into the Cosumnes River bottoms, and the acreage being irrigated by pumping has rapidly increased. With other lines, power is or will be available to the entire area.

Considering the ample water supply available to this area, the entire acreage of agricultural land within it may reasonably be considered as irrigable, with the lower lands most likely to be watered by pumping and the higher lands by gravity from American River. The present crops are mainly grains, alfalfa, hops, orchards, vineyards, and gardens, with the irrigated holdings usually small.

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[1] Physical Data and Statistics of California, Wm. Ham. Hall, 1886.

LOWER SACRAMENTO RIVER ISLANDS.

These include the principal named island areas south from Merritt Island along Sacramento River and the north and west banks of North Fork of Mokelumne and San Joaquin rivers. These are Merritt and Ryer islands, in Solano County, and Sutter, Grand, Andrus, Tyler, Brannan, Twitchell, and Sherman islands, in Sacramento County. These are all reclaimed delta lands of high fertility, devoted mainly to deciduous fruits, grain, celery, asparagus, beans, onions, potatoes, and alfalfa, all of which, excepting grain, are generally irrigated. According to the 1909 irrigation census, 28,272 acres were receiving irrigation water in that year, the means of application being siphons or pumps from the adjacent sloughs or rivers, the operation also involving drainage by pumps or gravity following irrigations or during high water. The total area of land in this island area scales 72,000 acres.

SUMMARY.

The foregoing discussion of the irrigation resources of Sacramento Valley has been written with the object of indicating in more detail than would have been possible under only general treatment both the present extent of irrigation and something of the trend and possibilities of future development. The extent and general soil and topographic conditions of each of the 22 more or less arbitrarily segregated unit areas have been described, and an effort has been made to present such study of the water supply available to each as, first, would show those interested and not otherwise in possession of the facts what may reasonably be expected in water-crop for each area, and second, would furnish a basis for estimating future growth under irrigation. To perform this last-named task can involve but little more than summarizing estimates based on more costly and more exhaustive surveys made by others in the past, with the advantage to our estimates of the additional investigations of ourselves and others during the past few years.

The tabular summary that preceded the discussion of the unit areas carried a total of 2,659,000 acres of valley and a total of 790,000 acres of plains agricultural land, of which only 123,500 acres are reported irrigated by the irrigation census taken in 1910 and revised for all of the larger and important areas to the season of 1912, inclusive. The grand total of the agricultural areas entered in that summary, viz., 3,449,000 acres, is very much larger than any total heretofore ventured for Sacramento Valley, because there have been included more than three-quarters of a million acres of what are herein classified as plains that have not generally been included as part of this valley. This total figure is, however, offered as what very careful consideration seems to warrant calling the Sacramento Valley area topographically suited to receive water. It is also believed that it is reasonable to consider that water is economically available for such an area to the extent that it is locally at hand or within reach of canals of no greater length than already have been officially projected and approved for this valley. The prediction is not ventured that all of that great area will some day be irrigated. One million acres, roughly, are within the upper line of permanent or temporary overflow, with 800,000 acres naturally covered by every considerable flood, but of which upwards of 300,000 acres are already more or less securely protected by dykes. To dispose of the high floods of Sacramento Valley will involve the wasting between levees along streams or by-passes, so far as can be estimated from available data regarding reclamation plans thus far matured, of some 250,000 acres. Of the remaining overflow land, much is likely never to be irrigated even if levees and drainage successfully reclaim it, unless such land becomes devoted to that highly intensive cultivation common to the older countries where irrigation and fertilization are the basis of agriculture even in the wet lowlands. Even assuming that water is at hand for all of the plains and for the valley floor above the lowlands, a reasonable reduction for roads, towns, and other uncultivated patches would, together with the elimination of the waste lands between the levees, reduce the area to be irrigated to 2,500,000 acres. But it is not likely that either all of the remaining plains or all of the remaining valley floor will artificially be supplied with water, because the certain course of independent and uneconomical development is quite sure not to bring about complete utilization. Nor will all of the plains prove profitable to irrigate with water carried long distances or pumped against high lifts. To attempt to estimate how much less than 2,500,000 acres will eventually be under water does not seem profitable, but it would seem that that area can be considered irrigable in the sense that water is at hand for it and most of it is fit for irrigation.

The first pages of the discussion presented known available data regarding total water supply and storage possibilities. The total mean annual flow of Sacramento River at Red Bluff, which is above Stoney, Cache, and Putah creeks on the west side, and above Antelope, Mill, and Deer creeks, and Feather, Yuba, Bear, and American rivers on the east side, was shown to be 10,400,000 acre-feet. The best estimate available for the mean annual discharge at Collinsville, at the river mouth, is 26,000,000 acre-feet, with a mean low flow at the same point of 7,000 to 8,000 cubic feet per second and a minimum of about 5,500 cubic feet per second. Assuming 7,000 cubic feet per second as necessary for the maintenance of navigation, and that navigation is a proper use even if less economical than irrigation, and assuming further an annual use of 4 acre-feet per acre for each acre now irrigated in Sacramento Valley, approximately 46 per cent of the mean flow past Red Bluff, or 4,800,000 acre-feet of water, now annually go to waste. Counting only Big Valley and Iron Cañon reservoir sites, above Red Bluff, to the extent that water is probably annually at hand to fill them, 1,226,900 acre-feet of this water now wasted might be saved with construction of that storage. Reducing the total mean flow at Collinsville by an amount necessary to supply the excessive quantity of 4 acre-feet per acre annually to each acre now irrigated and a constant flow for navigation of 7,000 cubic feet per second, the present annual waste, outside of excessive use, becomes 20,400,000 acre-feet, which could be reduced to about 17,000,000 acre-feet by the construction of all of the storage considered feasible in the reported studies of the Reclamation Service covering irrigation in Sacramento Valley. By the irrigation of 2,500,000 of the 3,449,000 acres found topographically susceptible to irrigation and the annual use thereon of 3 acre-feet per acre, the mean annual flow of the river that would still be wasted, not considering use for power or for irrigation on the irrigable areas of the Sacramento River drainage outside of Sacramento Valley, would considerably exceed the present mean flow into the valley at Red Bluff. The flow at Red Bluff in 1907–08, however, which is the minimum year of record, was only about 74 per cent of the mean.

SUMMARY FOR NORTHERN CALIFORNIA.

In the introductory pages of this report a tabular summary was inserted showing the acreages of valley, plains, and foothill agricultural lands in northern California of importance from the standpoint of irrigation, together with the acreages irrigated. These areas were arranged according to six irrigation divisions or zones, segregated as to similarity of irrigation and other agricultural conditions rather than strictly according to county or hydrographic lines. The summary showed 4,622,000 acres of valley, 790,000 acres of plains, and 789,000 acres of Sierra foothill agricultural land topographically irrigable within zones of water supply for irrigation. Of this, 483,700 acres was reported irrigated, with 161,850 acres of this in the northeastern plateaus and valleys of Modoc and Lassen counties, 123,800 acres in Sacramento Valley, 99,910 acres in the northcentral mountain valleys of Siskiyou, Trinity, and Shasta counties; 50,600 acres in the Feather River Valleys, 45,250 acres in the Sierra foothills, and 2,290 acres in the northern coastal counties.

With the results of no complete studies of underground waters at hand and gagings lacking for some of the important streams and for nearly all of the smaller ones, it is not feasible to state definitely the quantity of water available for irrigation in northern California. But it can be given in general terms on the basis of the water supply records of the Geological Survey and data as to irrigable land and use given in this report.

Northern coastal counties.—In this division, where it is estimated that not over 100,000 acres will ever be irrigated, although one half million acres of valley agricultural land were found, the water supply is largest where the agricultural areas are smallest and the need for irrigation is least. For instance, Klamath River, which passes for a number of miles through northern Humboldt County, carries a mean annual flow at Keno, Oregon, many miles above, of 1,690,000 acre-feet of water, but only 8,300 acres of agricultural land were found along it in this division, with little irrigation likely even on that. A similar situation in the matter of excess supply and small need for irrigation exists along the other large north-coast streams, viz.: Smith River, in Del Norte County, and Mad and main Eel rivers, in Humboldt County. The water supply is likewise ample for all needed or beneficial use along the smaller streams of Humboldt County, including, principally, Redwood Creek and Van Duzen, Mattole, and South Fork of Eel rivers. Because of the absence of agricultural land or due to humid conditions, very little if any irrigation is possible or needed along the immediate coast of Mendocino, Sonoma, and Marin counties, although Ten-Mile, Noyo, Albion, Navarro, Garcia, Russian, and other rivers carry relatively large quantities of water into the Pacific. In parts of the interior of these and of Lake and Napa counties, however, irrigation would be beneficial in excess of that which will be possible by direct diversion of surface streams, although in all cases the annual precipitation on watersheds adjacent to the agricultural areas would supply all needed irrigation water if it could be stored. In other cases pumping from underground waters or from lakes will give what is needed. The largest supply for irrigation in this division will come from South Fork of Eel River and its branches and from Russian River, because the largest areas of agricultural land that can be benefited by irrigation are within reach of these streams. If 100,000 acres are sometime irrigated in the northern coastal counties, 300,000 acre-feet of water will certainly be all of the water that is needed, and there can be no doubt that that quantity is within reach of land on which it can be beneficially used.

Northcentral mountain valleys.—Absence of stream gagings in this division likewise makes it necessary to use general figures in estimating the water supply at hand for irrigation. The largest agricultural areas are Shasta, Scott, Fall River, and Butte valleys. For Shasta Valley numerous perennial springs aggregating in flow about 150 cubic feet per second and underground sources furnish the most dependable supply, with large quantities of water available for direct diversion from Shasta River and its numerous tributaries in addition to the springs during spring and early summer. Klamath River has also been considered as available here, so that with some storage likely feasible on some of the Shasta River tributaries, water may be considered available for a very much larger area than the 23,800 acres now irrigated. In Scott Valley water is considered at hand if storage is feasible to water all of the 55,500 acres of agricultural land. In Fall River Valley there is a very large surplus, and in Butte Valley there is a deficiency except as underground waters may be developed. In the other areas the water supply varies from none to a sufficiency or an excess. For the entire division it is considered that the present irrigated area of approximately 100,000 acres can eventually be increased possibly to 250,000 acres, requiring, say, 375,000 acre-feet annually.

Northeastern plateaus and valleys.—More stream-flow records are accessible for this division than for the two just mentioned. When Big Valley was considered as a reservoir site by the Reclamation Service, it was estimated that 1,000,000 acre-feet of water would annually be available from Pit River watershed above that site, but this is in excess of the quantity that can be considered available in the sense that it can be used in this division. Counting all agricultural areas along Pit and tributaries reasonably within reach of water down to and including Big Valley, 163,300 acres were found after eliminating West and Jess valleys as probable reservoirs. For this, 500,000 acre-feet of water should be sufficient. For the Great Basin portion of this division, including Surprise and Honey Lake valleys and Madeline Plains, 400,000 acre-feet was estimated as the total water-crop that might be utilized. But considering existing conditions of land and water and that Big and Round valleys may ultimately be used for storage, doubling the present irrigated area of 161,850 acres was taken as the probable limits of future development. Assuming that meadow irrigation will continue on the lower areas in lieu of drainage and the growth of better crops, 600,000 acre-feet may be fairly considered the total quantity of water that will be used for irrigation in this big division of the State.

Feather River valleys.—Here also stream-flow records show with some definiteness the quantity of water present. The mean annual flow of Feather River at Oroville is about 6,000,000 acre-feet, with 1,649,385 acre-feet estimated as annually available above known storage sites. But only a small proportion of this is needed or can be used in the upper areas termed the Feather River valleys, the total valley agricultural land there aggregating only 158,000 acres, and only about 140,000 acres after eliminating one area of excessive elevation. Sierra Valley in this division has a large area and agriculture there is likely to attain a considerable development, but in the other valleys, of which American Valley, about Quincy, with 13,000 acres, is the largest, it does not seem likely that the character of agriculture will materially change owing to the local demand for forage, the relative inaccessibility of most of the areas, and the fixed tastes and customs of the people that will inhabit them. Allowing the usual low duty common to meadow and alfalfa irrigation in a district of ample water supply, 500,000 acre-feet may be fairly assumed as the quantity of water available for irrigation in this division.

Sierra foothills.—Although stream-flow records are available for the larger streams passing through this division, from which irrigation water comes, uncertainties as to the place or the character of future use of these streams makes it impossible to attempt a definite estimate of the water supply that can be called available for irrigation. The topographically irrigable area is estimated as 789,000 acres, with 45,250 acres now reported irrigated. Owing to the roughness and inaccessibility of much of the Sierra region, some land that is irrigable in the sense that it is similar to land there now being irrigated has undoubtedly been overlooked and likewise probably some has been included as irrigable that should have been omitted. But regardless of this, and the further fact that very large water supplies are within reach of some of the areas, no data are at hand that warrant estimating the ultimate area to be irrigated above 200.000 acres. Four hundred thousand acre-feet per annum would supply such an area and allow for heavy transmission losses.

Sacramento valley.—It is of course in this division of northern California that the most extensive and most important irrigation development will take place and the largest quantity of water be used. The summary of conditions there showed that the mean annual flow into Sacramento Valley at Red Bluff has been estimated to be 10,400,000 acre-feet and the mean outflow at Collinsville to be 26,000,000 acre-feet. It also showed approximately 3,400,000 acre-feet of known storage capacity for which water has been estimated to be annually available. Counting valley floor and valley plains approximately 3,500,000 acres of land-surface were found, of which it was inferred that the irrigated area may sometime be increased up to 2,500,000 acres. With necessary storage and navigation continued as at present, it was estimated that even with 2,500,000 acres irrigated, and on a liberal duty of 3 acre-feet per acre, more water would still pass unused into San Francisco Bay than now in mean years enters the valley at Red Bluff. Some of the tributaries entering Sacramento Valley below Red Bluff are of more importance in irrigation than the main Sacramento, because more easy of diversion to the irrigable lands. Stoney, Cache, and Putah creeks on the west side carry a total annual mean of more than 1,750,000 acre-feet with known possible storage on them approximating 544,000 acre-feet, counting full development of Clear Lake. Antelope, Mill, and Deer creeks, and Feather, Yuba, Bear, American, and Cosumnes rivers on the east side have a total annual mean in excess of 13,000,000 acre-feet, more than 2,000,000 acre-feet in known storage. Feather River alone was found to carry in average years enough water to cover all the valley land in Sacramento Valley to a depth of over 2 feet. Even the extensive surface supplies mentioned do not take into consideration the large supplies that now or eventually will come from underground sources. To consider total supplies as above does not, however, indicate the amounts that can be considered as available for irrigation, because minimum rather than mean years govern development and because many considerations may prevent the use of these supplies for irrigation. The total mean flow of Sacramento River at Collinsville during the months April to September, inclusive, approximates, according to the best available data, 16,000,000 acre-feet. Allowing 7,000 cubic feet per second during that period for navigation leaves nearly 13,500,000 acre-feet as an approximation of the supply available in mean years for direct diversion, assuming diverting capacity great enough to handle it. Including the 3,400,000 of known possible storage the total would approximate 17,000,000 acre-feet. But this large supply will never be available for irrigation, and for the purposes of this report 7,500,000 acre-feet may safely be used as the largest figure whose consideration is justified, because it is all that will ever be needed. To furnish this quantity of water in the months of April, May, June, July, August, and September, with an assumed use per acre during those months of 0.2, 0.5, 0.7, 0.7, 0.55, and 0.35 acre-foot per acre, respectively, and also to allow a continuous flow for navigation of 7,000 cubic feet per second, storage would be required in minimum years slightly above the total known to be possible. As the total flow of the entire river system is not equally distributed over the valley in accordance with the distribution of irrigable land, the total flow out of the valley at Collinsville does not, however, conclusively indicate storage necessities above the different areas. But on what appears to be a reasonable assumption with reference to navigation, viz., that it will give way to irrigation when necessary, and with the fact known that large areas in Sacramento Valley will be irrigated from underground sources, it is safe to assume that the total quantity stated as the maximum that will be needed for irrigation, viz., 7,500,000 acre-feet, may be considered available.

IRRIGATION RESOURCES OF CENTRAL CALIFORNIA.

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INTRODUCTION.

This is the second of a series of three reports on the irrigation resources of California prepared in coöperation between the State Conservation Commission of California and the United States Department of Agriculture. Standards of classification similar to those used in the two other main divisions of the State were adopted in this division, the area reported being that which is susceptible of irrigation if a water supply can be provided. Not all of the areas classed as agricultural will ever be irrigated and much land included in this classification is at present and will continue to be cultivated by dry farming methods. It is intended that the agricultural lands shown on the maps and included in this report shall show the limits within which the future increases in irrigation are likely to take place, without attempting to indicate in which parts of these areas the available water supply will eventually be used, as present knowledge is not sufficient for the making of such a determination. The discussion of the separate areas and the table inserted at the end of this report gives estimates of parts of these total areas which may ultimately be irrigated based on the present knowledge. The areas at present irrigated are from the irrigation census taken in 1910, supplemented by field examinations to determine the changes since that time, actual canvasses of areas being made in the more important sections. Lands which receive water in normal years were classed as irrigated. This includes a large range of irrigation conditions, from the economical methods used in orchards supplied by deep pumping to the wild flooding of pasture.

Of the three parts into which California has been divided for the purposes of these reports, central California contains the largest area of both agricultural and of irrigated land. This division extends from the north line of Contra Costa, San Joaquin, Calaveras, and Alpine counties to a line following the south line of San Luis Obispo county and extending along the crest of the Tehachapi Mountains to Tehachapi and from there across the desert south of Owens Lake perpendicular to the east line of the State. This division combines the essential and typical characteristics of both northern and southern California, as in some parts of it all the products of the other two divisions are successfully grown. All agricultural extremes are encountered from such coast regions as Pajaro Valley, whose generally high rainfall and summer fogs make irrigation hardly necessary, to the arid portions such as southern Kern County and the eastern desert, where irrigation is essential to any crop production, and also from the low overflow areas of the San Joaquin deltas to the higher eastern Sierra valleys.

Four divisions have been made of the portion of the State treated in this report. These are: (1) the coastal valleys, (2) the main San Joaquin Valley, (3) the Sierra foothills above the San Joaquin Valley, and (4) the valleys east of the Sierra. Each of these divisions represents conditions essentially different. In the most northern of the central coastal valleys horticulture predominates, the rainfall being generally of sufficient amount to make fruit raising profitable without irrigation, although the certainty and value of the crops are increased where a water supply can be used. In San Joaquin Valley are found large compact areas of agricultural land bordering large streams, making development in large units the most economical. The agricultural lands in the Sierra foothills consist of generally separate tracts of valley and tillable bench or rolling land of small extent, where climatic conditions make profitable the growth of deciduous or citrus fruits. In the valleys east of the Sierra conditions are typical of the higher mountain areas where forage crops predominate and the methods are more wasteful and crude.

The following table summarizes the agricultural and the irrigated lands in the different divisions:

Summary of agricultural and irrigated areas in central California.

Division.	Valley agricultural land. Acres.	Valley plains. Acres.	Foothill agricultural land. Acres.	Areas irrigated. Acres.
Coastal valleys	887,000			87,000
San Joaquin Valley	6,530,000	1,046,000		1,728,975
Sierra foothills above San Joaquin Valley			777,000	10,620
Lands east of the Sierra	472,000			137,760
Totals	7,889,000	1,046,000	777,000	1,959,355

CENTRAL COASTAL VALLEYS.

The coastal valleys division includes the portion of central California lying west of the Coast Range from Contra Costa to San Luis Obispo counties, inclusive. There are 887,000 acres of agricultural land reported of which 87,000 acres are irrigated. The success attained with agriculture without irrigation, particularly with deciduous fruits, has retarded irrigation until recently. At present the realization that even better returns may be obtained with irrigation is causing much interest to be taken and development to be made in procuring water supplies. As the Coast Range receives but little snow the streams are characterized by torrential run-off, the discharge decreasing soon after the end of the rainy season and in many cases ceasing entirely, sometimes immediately after each storm. This lack of dependability in the surface flow has directed attention to the underground supplies and these are being developed quite rapidly.

The following tabular summary groups the agricultural and the irrigated areas of the central coastal valleys by counties and gives the total and irrigated areas in each:

Summary of agricultural and irrigated areas in central coastal valleys.

Area.	County or counties.	Agricultural land. Acres.	Irrigated land. Acres.
San Ramon Valley	Contra Costa	6,000	10
Bay Shore–Richmond–Stege	Contra Costa	50	50
Lafayette	Contra Costa	1,250	----------
Pacheco–Concord–Martinez	Contra Costa	17,500	20
Ygnacio Valley	Contra Costa	11,800	----------
San Francisco	San Francisco	400	400
East Bay Shore	Alameda	59,500	2,290
Castro Valley	Alameda	2,200	----------
Sunol Valley	Alameda	2,500	----------
Livermore Valley	Alameda	53,000	80
West Bay Shore	San Mateo	33,600	1,230
Pacific Shore	San Mateo	23,400	2,440
Santa Clara Valley	Santa Clara	148,000	42,550
Along Coast, Santa Cruz to Davenport	Santa Cruz	4,300	----------
Along Coast, Santa Cruz to Capitola	Santa Cruz	3,200	520
Pajaro Valley	Santa Cruz	26,000	670
Pajaro Valley	Monterey	6,000	700
Gilroy	Santa Clara	43,000	1,200
Paradise Valley	Santa Clara	3,800	20
Hollister	San Benito	59,500	3,300
Lower Salinas Valley	Monterey	250,000	25,000
Upper Salinas Valley	Monterey and San Luis Obispo	60,000	300
San Antonio Valley	Monterey	18,000	----------
Carmel Valley	Monterey	6,500	----------
San Luis and Los Osos valleys	San Luis Obispo	24,000	80
Chorro Valley	San Luis Obispo	9,000	640
Arroyo Grande and Los Berros valleys	San Luis Obispo	12,000	500
Nipomo Valley	San Luis Obispo	2,500	----------
Totals		887,000	82,000

The irrigation census taken in 1910 gave the following figures on pumping from wells in the above areas in 1909:

Summary of irrigation from wells in the central coast valleys, 1909.

County.	Areas irrigated from pumped wells. Acres.	Areas irrigated from flowing wells. Acres.
Contra Costa	68	
Alameda	1,125	
San Francisco	383	
San Mateo	1,057	
Santa Clara	15,947	7,415
Santa Cruz	247	2
San Benito	1,812	847
Monterey	4,428	
San Luis Obispo	109	18
Totals	25,176	8,282

Electric transmission lines are being extended through the valley and utilized for operating irrigating pumps and a generally rapid increase in the area irrigated from underground sources is to be expected.

The streams of this division, with the exception of Salinas River, which flows parallel to the coast, have small watersheds of short length. The most important are Alameda Creek, Coyote River, Guadaloupe Creek, San Lorenzo, Pajaro, and Salinas rivers, and San Luis Obispo and Arroyo Grande creeks. Alameda Creek is largely controlled for use as a part of San Francisco's water supply and has been measured for that purpose by the Spring Valley Water Company. Various short-time records of the discharge of Salinas River and tributaries, including one for 11 years on Arroyo Seco, are available[1] but otherwise there are no public records of stream discharge.

WESTERN CONTRA COSTA COUNTY.

In the portion of Contra Costa County included in this division only 80 acres were reported as irrigated out of 36,600 acres of irrigable land. This irrigable land does not, however, include all of the land now cultivated, much of the higher areas being farmed to grain. The principal irrigable areas are the San Ramon and Ygnacio valleys and the agricultural lands in the vicinity of Concord. On the valley lands, grain, grapes, and deciduous fruits are the principal crops, the returns from the last two being generally considered satisfactory without irrigation. The nearness of these areas to the cities of San Francisco Bay with their large markets has caused the farms to be of smaller sizes, and the extension of electric railroads will increase this tendency. The local water resources are not extensive, the torrential flow of the creeks requiring storage for use. While underground sources give promise of furnishing some water, the lack of larger gathering grounds will limit the quantity of water which can be obtained. The possibility of growing profitable crops without irrigation and the difficulty in obtaining water supplies make any extensive irrigation development improbable.

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[1] U. S. Geol. Survey Water Supply Paper No. 300.

ALAMEDA COUNTY.

There are two main divisions of agricultural land reported in Alameda County, that lying along the eastern shore of San Francisco Bay and that along the tributaries of Alameda Creek in Livermore and other valleys. As in Contra Costa County, much land lying above these areas is now used for grain growing.

The area of 59,500 acres along the eastern bay shore is quite well developed agriculturally without irrigation, the land being largely divided into small tracts and intensively cultivated in truck and fruit, only 2,290 acres of which are reported irrigated. Aside from Alameda Creek, whose torrential flow crosses the area, the surface streams are small and inconsequential. Alameda Creek is largely controlled for municipal water supply and its full use for irrigation in this area is not to be expected. The development of ground water is the more probable source of supply for irrigation. Ground water occurs at depths varying from 10 to 60 feet and is now used to a considerable extent for municipal supply and also to some extent for irrigation. In some places ground water is sufficiently near the surface for crops to benefit by subirrigation. Land values are high because of the nearness of large markets and considerable expense for irrigation will be justified, but the returns from present methods are so large that the need of irrigation has not been generally felt. As the possibility of larger yields possible with irrigation is recognized efforts to obtain a water supply will probably be made and any available underground sources used as fully as practicable. The construction of any system supplying water from Sierra streams for the use of the cities lying around San Francisco Bay may affect development by releasing for irrigation water at present used for municipal supply, and also by furnishing some surplus from the Sierra source as contemplated in San Francisco's latest project.

On the Alameda Creek drainage area 57,700 acres are reported as irrigable if a water supply can be secured. This land is very largely farmed in grain and grain hay with some grapes, while sugar beets and hops are successfully raised in a few sections. But 80 acres are reported as irrigated, the diffiiculty of obtaining a water supply having prevented the change from the growing of grain to the more intensive irrigated crops. About 400 square miles of the drainage area tributary to Alameda Creek are available for these areas but the torrential character of this stream makes storage necessary for its use for irrigation. The water supply of this stream has been quite extensively investigated and purchased for use as a municipal supply. Storage on Arroyo Valle and pumping from the lower gravel beds where some artesian flow is now obtained are contemplated. The extensive use of any local supplies for irrigation is not probable, although here, as along the east bay shore, the development of new municipal water supplies for the bay cities may furnish some excess for irrigation.[1]

The nearness of large markets would make profitable the use of any available supplies in the intensive cultivation of garden truck and small fruits.

SAN MATEO COUNTY.

In San Mateo County a total of 57,000 acres of irrigable land are reported of which 3,670 acres are irrigated. This area is quite highly developed, much garden truck being grown for the nearby city markets. Land holdings are small, much of the land along the transportation lines being divided into suburban building sites. Present irrigation supplies are secured largely by pumping from the small creeks, although underground water is found at depths of from 20 to 50 feet and should be sufficient to supply a considerable area, particularly near the various streams. Artesian flow occurs near Redwood at depths of 200 to 300 feet.

On the west shore of San Francisco Bay 1,230 acres of the 33,600 acres of agricultural land reported are irrigated, chiefly in the vicinity of Colma. There are about 65 square miles of local drainage area, exclusive of San Mateo Creek, which is controlled by the Spring Valley Water Company for municipal use. With storage this would supply about one third of the area, although its full use is not probable because of the small size of the various streams. Along the ocean shore, 2,440 acres of agricultural land are irrigated, about two thirds of this being in the vicinity of Half Moon Bay and one third along San Pedro Creek. There are about 200 square miles of tributary drainage area divided between several small creeks which with sufficient storage might supply the area with water. Data on possible storage sites are not available, but full development is not to be expected. The present returns from unirrigated crops are so large that there has been no general demand for irrigation, although its benefits are becoming appreciated. Increase in the irrigated area is to be expected, although more by the use of underground supplies than by storage on the small creeks.

SANTA CLARA VALLEY.

This name is generally applied to the area in Santa Clara County centering around San José and extending south along Coyote Creek to the divide near Morgan Hill. There are 148,000 acres of agricultural land in the valley and lower hills of which 42,550 acres are irrigated more or less completely. This irrigated area is bordered by foothill land which is used to some extent for both fruit and grains, but which has been excluded in this classification as no water supply for irrigation can be considered as available. In this valley, which is noted as a prune and other deciduous fruit center, irrigation was long considered as not increasing the yields and returns in proportion to its cost. In recent years this feeling has rapidly changed until at present practically all of the torrential discharge of the various local creeks is diverted for irrigation in the winter or spring as it may be available, and underground resources are being drawn upon at a rapidly increasing rate, there having been an increase of over 25 per cent in the area irrigated from pumps between 1909 and 1912.

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[1] Various unpublished reports submitted to Board of Army Engineers in the matter of the application of San Francisco to use Hetch Hetchy Valley as a reservoir.

The soils here vary from sandy loams to black adobe,[1] the latter being found in the lower areas near San Francisco Bay. Owing to the heaviness of the soils and the generally unfavorable drainage conditions the use of these lands bordering San Francisco bay has been confined to the growing of vegetables and forage crops. The soils of the higher valley lands are in many places underlaid by clays which assist in the retention of the water applied in winter irrigation. Alkali occurs in injurious quantity only near the marsh lands, and hardpan does not interfere with agriculture in this area. In the orchards where water supply for irrigation can not be obtained, thorough cultivation and the use of a cover crop during the winter which is plowed under in the spring are used to conserve moisture and soil fertility. As a rule the orchards are owned in small tracts, 15 to 40 acres being usual, and the agricultural methods are thorough and progressive. Los Gatos, Guadalupe, and Campbell creeks and Coyote River are the principal streams, the total drainage area tributary to the valley being about 1,350 square miles. These streams have surface flow during the rainy season only and are generally dry by May. The total run-off and consequently the area irrigated varies with the different years. In 1912, which was a year of low run-off, 8,200 acres received water from Campbell, Los Gatos, and Guadalupe creeks, and in 1909 the census returns gave 9,700 acres irrigated from these same streams. Orchards are the principal crop irrigated, furrows or flooding in basins being the usual methods of application. While it might be feasible in some cases to construct small reservoirs for the storage of part of the discharge of these streams for use in the later season, the use of winter irrigation and ground storage, even although perhaps not as efficient, is cheaper and probably more economical in view of the irregular character of the stream discharge. Artesian flow is obtained north of San José and extending to San Francisco Bay and is used for the irrigation of about 7,000 acres largely of vegetables and alfalfa. In the remaining valley lands underground water occurs at depths varying up to 100 feet, or over in a few cases, the lesser depths being found near the creek beds, although in the sections most largely developed at present, lifts of 40 to 75 feet are the most usual. Near the foothills the depth to water increases and the quantity obtainable decreases so that pumping for irrigation is impracticable.

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[1] U. S. Dept. Agr., Bureau of Soils, Soil Survey of San José Area.

Owing to the adaptability of this section to the growing and drying of fruit, especially prunes and apricots, a considerable expense for obtaining a water supply for irrigation is warranted and the present rate of increase in pumping plants indicates that the benefits derived from their use are greater than their cost. The underground water should be capable of much additional development, although there are no data available on which an estimate can be based of the total amount which may ultimately be supplied from these sources. The tributary gathering ground exceeds 1,000 square miles on which the annual rainfall varies from 15 inches in the lower valley to over 30 inches in the surrounding ranges. As the surface soils are usually open and the precipitation generally occurs in separate rains of moderate amount, conditions for the absorption of a comparatively large portion of the rainfall are favorable. Water is now being raised from depths which would formerly have been considered impracticable, and a continuation of the development of pumping for lands where soil and other conditions make the growth of orchards profitable is to be expected.

MINOR AREAS IN SANTA CRUZ COUNTY.

SANTA CRUZ TO DAVENPORT.

This area comprises 4,300 acres forming a narrow strip along the Pacific Ocean extending northwesterly about 12 miles from Santa Cruz. Numerous creeks which have their source in the Santa Cruz mountains dissect the area and find their outlet in the ocean. Between the creeks the land is rolling and devoted almost exclusively to the growing of grain and grazing of cattle. No irrigation is reported and, owing to the limited agricultural area and the torrential character of the run-off, it is doubtful if storage would prove feasible.

SANTA CRUZ TO CAPITOLA.

This area comprises 3,200 acres extending easterly from Santa Cruz to Capitola. A few miles back from the ocean the land becomes rolling and gradually merges into the mountains. The soil varies from a sandy loam to a black adobe. The holdings average about 40 acres in extent and the land is valued at $250 to $400 per acre. Deciduous fruits and grapes are grown with a considerable area devoted to truck farming. About 520 acres are irrigated by pumping from streams and wells. The pumping plants are small, deep-well pumps being commonly used, the lift varying from 40 to 60 feet. Increased irrigation development will depend principally upon storage of creek waters but the agricultural area is so small that it is doubtful if the expense of storage reservoirs would be justifiable.

AREAS IN PAJARO RIVER DRAINAGE.

In the Pajaro River drainage are several areas of agricultural land which are more or less continuous. Two of these are in the lower portion known as Pajaro Valley, one lying north of the river in Santa Cruz County, consisting of 26,000 acres of agricultural land of which 670 acres are irrigated, and the other lying south of the river in Monterey County, containing 6,000 acres, of which 700 acres are reported irrigated. In the vicinity of Gilroy, in Santa Clara County, is an area of 46,800 acres, of which 1,220 acres are irrigated, 3,800 acres of the agricultural and 20 acres of the irrigated land being in Paradise Valley. The area extends northwest to the divide into Santa Clara Valley at Morgan Hill. In San Benito County are 59,500 acres in the vicinity of Hollister, of which 8,300 acres are irrigated. These units make a total of 138,300 acres of agricultural land, of which 10,890 acres are now irrigated.

Pajaro River has a total drainage area of about 1,300 square miles, the mean annual rainfall on which varies from 10 inches to 25 inches and probably averages 15 inches. No long-time discharge records are available but present use is much less than the run-off, as even in the dry season water escapes to the ocean. San Benito River is the largest tributary, Llagas, Uvas, and Pacheco creeks being the others of importance. Any extensive use of Pajaro River or its tributaries for irrigation will require storage as its flow is largely torrential because of the lack of drainage areas extending to regions of snow. Some sites for storage are known. One reservoir on San Benito River to contain 4,500 acre-feet is being built, and other sites probably exist which it will be practicable to utilize if the demand for their use arises. Underground water conditions are also generally favorable, particularly in those portions lying near any of the streams. About one half of the present irrigated area is supplied with water by pumping from this source. Artesian flow is also encountered in various places.

PAJARO VALLEY.

The lower portion, the so-called Pajaro Valley, is best known agriculturally for its apples and berries, more apples being shipped from this section than from any other in California. Owing to the generally high rainfall, 23.7 inches annually at Watsonville, irrigation of mature orchards is not considered to increase the yields in proportion to its cost. Such irrigation as is practiced consists mainly of the pumping of water for use on berries and other inter-crops in young orchards. As the returns from unirrigated orchards are satisfactory to their owners no large increase in irrigation is to be expected. During the summer dry season, the cool fogs are of much benefit in reducing evaporation and possible sunburn in the apples. During the winter the hills which practically surround the valley aid in protecting the orchards from sudden temperature changes. Sugar beets and potatoes are also important crops in the lower lands, while on the higher valley lands and hills barley and oats are extensively grown. Up to the present time irrigation has been confined to portions of the more productive alluvial bottom lands the total area of which is about 18,000 acres. The soils are variable, loams and sandy loams comprising the largest acreage with the heavier soils found in the lower portions.[1] The only use of Pajaro River for irrigation has been by pumping, the lifts being from 20 to 40 feet. Browns Creek is tributary to the river, entering from the north in this area. In the lower bottoms sufficient water for irrigation can be obtained from wells at lifts of approximately 20 to 50 feet. At various times much of the present orchard land has been irrigated, the prevailing practice being to plant the various types of berries such as blackberries, raspberries, loganberries, or strawberries, and in some cases sugar beets between the rows of young trees and to irrigate the whole until the orchards come into bearing. Irrigation of mature orchards is not practiced and as the soils adapted to apples are quite largely used for them, at present the areas available for irrigation are not extensive. Some alfalfa is irrigated but land is generally considered too valuable to be used for this crop. It is not probable that irrigation will ever be developed in this valley even to the extent of the available water supply, as the lands for which a water supply can most readily be obtained are those on which its use is the least needed. While the irrigation of the higher lands would be of benefit the cost has up to the present prevented any attempts being made to provide a water supply for them.

Pajaro River flows through a narrow valley above Chittenden which widens above the mouth of San Benito River, forming the valley extending from Gilroy for 12 miles northwest in Santa Clara County along Llagas and Uvas creeks, and also the area in San Benito County along the San Benito River and around Hollister.

GILROY AREA.

In Santa Clara County a mixed development is found, part of the land being in small holdings and intensively cultivated in fruit and other crops similarly to Santa Clara Valley to the north, and part still remaining in the large grants, of which but slight agricultural use is made. The rainfall is higher than in the areas farther north, being about 19 inches at Gilroy. Llagas Creek, the largest stream, drains about 80 square miles of low hills, the run-off being torrential and irregular. The land along upper Llagas Creek is known as Paradise Valley and is a highly developed prune district. Present irrigation is mainly by pumping, the under flow of Llagas Creek being available in the lower lands along its course. Artesian flow can be secured southeast of Gilroy in the lower areas. With the subdivision of the large holdings and the continued increase in irrigation from pumps, this area should reach development similar to the Santa Clara Valley.

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[1] U. S. Dept. Agr., Bureau of Soils. Soil Survey of Pajaro Valley, Cal.

HOLLISTER AREA.

In San Benito County irrigation is more largely practiced, San Benito River being the main source of supply. Dairying is more prominent here than the fruit industries. A ridge of low hills separates the valley along the lower San Benito River from the main areas around Hollister, forming the San Juan Valley, containing about 10,000 acres which are largely planted in orchards. North of Hollister is an alkaline area of swamp and overflow land of which 10,000 acres are as yet unreclaimed and have been excluded from the classifications of this report. Owing to the smaller rainfall, the mean annual precipitation at Hollister being about 12 inches, irrigation is more necessary than in the valleys to the north. About 3,300 acres are irrigated by gravity canals from San Benito River, winter flooding methods being used. The increase of this acreage is contemplated, as through storage the discharge of San Benito River can be made to serve much more land, the total drainage area being about 700 square miles. Underground water in sufficient quantities for pumping is obtainable under the valley land, becoming scarce near the foothills. This is also used at present as well as the artesian flow which can be obtained in the northern portion. Increase in irrigation, both from streams and from ground water, can be expected in this area.

SUMMARY.

Of the total of 138,300 acres of agricultural land reported in the various areas in the Pajaro River drainage, but 10,890 acres are irrigated at present. The success which has been attained without irrigation has caused less interest to be taken in procuring a water supply than would have otherwise been the case. This also renders uncertain any estimate of the area which may eventually be irrigated although it is probable that all accessible sources of water supply will ultimately be utilized. Sufficient records are not available on which an estimate of the total water supply can be based. The irregular and torrential character of the discharge of the surface streams will limit their use largely to winter flooding as being cheaper than storage in reservoirs. The greatest dependence will be placed upon underground supplies and these should be capable of irrigating several times the present area. Their use is more probable in the Gilroy and Hollister sections as rainfall and climatic conditions are less favorable there than in the lower Pajaro Valley. The drainage area is about the same size and the general precipitation probably but little more than one half that of the Santa Clara Valley, in which over 40,000 acres are irrigated without having nearly reached the practicable limit, and the ultimate irrigation of nearly 40,000 acres should not be impracticable in the Pajaro River drainage.

SALINAS VALLEY.

Salinas Valley comprises the largest area of agricultural land in the coast division. It extends in a southeasterly direction from the bay of Monterey to its head in San Luis Obispo County, a distance of about 100 miles. The valley is separated from the Pacific Ocean on the southwest by the Santa Lucia Range and on the northeast is separated from San Joaquin Valley by the Mt. Diablo Range. Salinas River forms the main drainage artery and with its tributaries drains 4,780 square miles.

For the purpose of this report Salinas Valley is divided into lower Salinas Valley and upper Salinas Valley, the division line being taken a few miles southeast of King City, where the valley becomes a narrow strip along the river.

LOWER SALINAS VALLEY.

Lower Salinas Valley lies entirely in Monterey County, is from 7 to 9 miles wide, and comprises 250,000 acres. This area is about equally divided between uplands or plains bordering the foothills and bottom or valley lands. The uplands are devoted almost exclusively to the growing of grain and consist of a soil of loose, coarse texture. The bottom lands are of various grades of sand, sandy loam, and adobe.[1]

The discharge of Salinas River near Salinas was measured from January, 1900, to July, 1901.[2] Comparison of this with the records on Arroyo Seco covering 11 years indicate the probable total mean annual discharge of the Salinas to be between 500,000 and 600,000 acre-feet. The annual discharge in dry years is about 200,000 acre-feet. The run-off is not largely used, mainly because of its torrential character to the depth of the stream bed below much of the land, and the success in growing large acreage of grain without irrigation.

There are six canals diverting water from the Salinas River and its main tributaries, the Aroyo Seco and San Lorenzo River, irrigating about 11,500 acres of land. Four of these canals are controlled by a local sugar company. Extension of irrigation from gravity supply must depend principally upon the storage of flood waters. The United States Geological Survey has made surveys and reported on the storage of Salinas River.[3] Two sites on the Arroyo Seco were favorably reported upon, having a combined capacity of 41,367 acre-feet. It is estimated that the reservoirs can be filled once in dry years and twice in ordinary years, being emptied once for winter irrigation. On San Lorenzo Creek, the Mathews reservoir was surveyed and the water supply estimated to be 4,000 acre-feet in dry years and 12,000 acre-feet in ordinary years. Assuming the duty of water to be 2 acre-feet per acre per season, these reservoirs if built would provide water in ordinary years for 46,000 acres. Other reservoir sites were examined but under present conditions the cost of storage was not considered justifiable, although ultimately the sites may be used.

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[1] U. S. Dept. Agr., Bureau of Soils, Soil Survey of Lower Salinas Valley.

[2] U. S. Geol. Survey Water Supply Paper No. 300.

[3] U. S. Geol. Survey Water Supply and Irrig. Paper No. 89.

Irrigation by pumping from wells or from stream channels has increased in large proportions in the last few years. In 1912 there were over 100 pumping plants in the valley providing water for 13,500 acres of land, or nearly three times the area reported by the census of 1909. Underground waters in sufficient amounts for use in irrigation underlie most of the lower valley lands at lifts varying from 20 to 40 feet. With the advent of electric power in the valley in 1912 and the more general attention given to irrigation, pumping will be the source of much future development.

The principal crops irrigated are beets and alfalfa, and in the adobe soils one heavy irrigation applied in the winter has been found sufficient. Grain constitutes one of the staple crops of the valley and is grown without irrigation. As in many parts of California where wheat and barley have been grown successively for many years, the yield has decreased and the soil depleted. Attention is now being diverted to other crop pursuits, chief of which are sugar beets, alfalfa, and potatoes. One serious handicap to agricultural development has been the vast single land holdings. In the drainage basin of Salinas River 51 ranchos covered an area of 570,000 acres. A large number of these ranchos remain intact but they are gradually being subdivided into small tracts. Another factor that has retarded irrigation development in Salinas Valley is that until recently the rainfall was considered sufficient for agriculture. The average annual precipitation at Salinas covering a period of thirty years is 14.71 inches, with seasonal fluctuations of from 5 to 20 inches. This wide variation and uncertainty in the rainfall has impressed upon the residents of the valley the need of irrigation. The winds have a marked influence upon the climate. During the dry season trade winds enter the valley from Monterey Bay which give way in the winter to winds from the southeast frequently accompanied by rain. Fogs which prevail during the dry season also play an important part in the climate by conserving soil moisture and checking evaporation. With the subdivision of the large holdings and the increase in the acreage being planted to sugar beets, potatoes and alfalfa, instead of grain, the outlook for irrigation extension is promising.

UPPER SALINAS VALLEY.

Upper Salinas Valley extends from King City to about 9 miles southeast of Santa Margarita, comprising 60,000 acres. Above King City the valley narrows to about a mile in width, and from Wunpost to San Miguel the river flows in a deep, wide canyon. The valley widens again southeast of Paso Robles and from that point to its head is cut by numerous channels and broken rolling hills.

The upper Salinas Valley is devoted almost exclusively to the growing of grain and the live stock industry. Small fields of alfalfa are irrigated along the bottom lands by pumping from the stream or from wells. The area irrigated in 1912 was 300 acres.

Near Paso Robles artesian water has recently been struck at a depth of 325 feet and present indications are that sufficient water can be obtained for irrigating most of the available agricultural area in that vicinity.

SAN ANTONIO VALLEY.

This is a mountain valley with an average elevation of 1,000 feet lying west of the upper Salinas Valley and comprises about 18,000 acres. It is an old settled section, being founded a century ago, and is devoted almost exclusively to the growing of grain and raising of cattle. The valley floor is covered with scattered oak timber. giving a park-like appearance. San Antonio River has been explored for reservoir sites, but the only one found available is a considerable distance below the body of agricultural land. Sufficient water for stock and domestic purposes is obtained from wells at depths ranging from 25 to 40 feet. There are not enough wells on which to base an opinion as to underground water conditions, but it is not probable any extensive irrigation will take place in this valley from underground sources.

CARMEL VALLEY.

This is a small coast valley drained by the Carmel River which enters Carmel Bay about 4 miles below Monterey. The valley is from $\frac{1}{4}$ to $\frac{1}{2}$ mile in width and the area embraced in this report covers about 6,500 acres. The soil ranges from a sandy loam to a black adobe along the river bottoms. The waters of Carmel River are utilized by Pacific Grove and Monterey for municipal purposes. Alfalfa is grown in the bottom lands with subirrigation and aside from this no irrigation is practiced. Dairying and stock raising form the principal industries, although deciduous fruits are successfully grown. Irrigation development in this area will probably follow along lines of pumping from underground sources.

SAN LUIS OBISPO COUNTY AREAS.

SAN LUIS AND LOS OSOS VALLEYS.

These are two adjoining valleys in San Luis Obispo County comprising 24,000 acres. In common with other Coast Range valleys they have a northwest-southeast trend. The average elevation is 200 feet. The combined length of the valleys is about 20 miles and the width varies from 1 to 4 miles.

Drainage is afforded San Luis Valley by San Luis Obispo and Pismo creeks, which find an outlet in the Pacific Ocean. Los Osos Valley is drained by Los Osos Creek, which flows northwesterly into Morro

Bay. The average annual rainfall at San Luis Obispo covering a period of ten years is 21 inches. Grain and beans are the principal crops grown, with an increasing acreage of alfalfa, and more attention is being given to irrigation. There are only a few small pumping plants, irrigating about 80 acres. Where wells can be sunk in old stream channels water can be obtained in sufficient quantities to irrigate small areas.

CHORRO VALLEY.

This valley comprises 9,000 acres of agricultural land which lies along Chorro Creek northwesterly to Morro Bay. Conditions are similar to those in Los Osos Valley except that more irrigation is practiced, the area watered being 640 acres. This consists of small fields of alfalfa found along the creek bottoms. Irrigation may be extended by building small storage reservoirs on creeks that enter the valley, but it is doubtful if the area that could be irrigated would justify the expense.

ARROYO GRANDE AREA.

This includes Arroyo Grande and Los Berros valleys, together comprising 12,000 acres. The valleys are located in the southwestern portion of San Luis Obispo County and except along the Pacific are surrounded by broad rolling hills or mesas. Drainage is afforded by Arroyo Grande, Los Berros, and Pismo creeks, which find their outlet in the Pacific. Arroyo Grande Valley is highly developed and widely known for its seed farms. Other important crops are beans, sugar beets, grain and walnuts. Land is held in small tracts averaging 40 acres. Arroyo Grande Creek is the source of supply for three irrigation companies which irrigate about 500 acres. Generally one or two heavy irrigations in the winter are sufficient for beets or alfalfa, which are the only crops irrigated. Storage will be necessary for any further extension. Pumping from wells has not been resorted to and the data on underground supply is therefore meagre. Water is obtained from 15 to 30 feet below the surface and should afford sufficient supply for irrigating small areas.

NIPOMO VALLEY.

Nipomo Valley is separated from Los Berros Valley by a low range of hills and extends southwesterly from the summit to Santa Maria River, a distance of about 6 miles. South of Nipomo the valley is dissected by several small streams or arroyos and is broken by low rolling hills. The area comprises 2,500 acres and no irrigation is reported. The valley is devoid of timber and brush and the soil is mostly black adobe. Almost the entire area is farmed to grain in large holdings with an increasing acreage in beans. The depth to water in a few domestic wells in the valley ranges from 25 to 40 feet and sufficient water is afforded for stock and domestic purposes. From the scant information on the underground supply, it seems possible that small areas can be reclaimed by pumping from wells.

SUMMARY.

The agricultural land in the various areas reported in the central coastal valleys totals 887,000 acres, of which 82,000 acres are irrigated. The water supply for about two thirds of this is obtained from surface streams either by gravity diversion or by pumping. Owing to the torrential character of all streams draining the coast range in central California complete seasonal irrigation from surface supplies as practiced in the other divisions is not possible without storage. As yet the benefits of irrigation have not been sufficiently recognized to make feasible large projects which alone could afford expensive storage, the opportunities for which are not generally favorable. The largest existing canal system irrigates less than 4,000 acres.

Underground waters, either pumped or flowing, now supply over one third of the present irrigated area and their use is increasing at a more rapid rate than that of the surface streams. No detailed study has been made of the amounts which can be secured from the groundwaters without depleting the supply, but it is certain that present development takes much less than can be safely withdrawn. The greater reliability of groundwater supplies as contrasted with the variable flow of the local streams, and the better adaptability of the former to the small units in which the more intensively cultivated irrigated land is usually held, make their full use the most natural development.

In practically all agricultural areas in this division or at least in as large parts of them as the available water resources can supply, crops of high returns can be grown so that a comparatively large expense for irrigation may be justified. That the benefits are becoming appreciated is evident from the increase in use of pumping plants and other sources that is now taking place, although in many portions the profits without irrigation are sufficient to satisfy the landowners, particularly those with large holdings. It is this ability to produce crops without irrigation that makes difficult any forecast of future development. It is not improbable that 70,000 acres will be irrigated in Santa Clara Valley and 40,000 in the Pajaro River drainage. It has been estimated that 65,000 acres[1] can be supplied with water from surface resources in Salinas Valley and with full use of underground waters this figure may be exceeded.

Including the other smaller areas it is reasonable to expect that a total of 200,000 acres will eventually be irrigated and even this acreage may be exceeded. Were these coast valleys located where irrigation is a necessity it is certain that their water resources would be made to serve greater areas than these. The ultimate irrigation of 200,000 acres is an increase of less than one and one half times the present development. Until recently it has been maintained in many of these valleys that irrigation was neither a necessity nor a benefit, and much additional use of the available water supply both in small pumping units and by canals and storage is to be expected.

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[1] U. S. Geol. Survey Water Supply and Irrig. Paper No. 89.

SAN JOAQUIN VALLEY.

The division which consists of the main San Joaquin Valley is the largest irrigated section in the State, both in the area at present irrigated and in its prospective development. It includes the lands lying in the main valley floor and in the adjacent more or less rolling plains through which the valley trough blends into the higher Sierra foothills. On the western side of the valley, because of unfavorable topographic and climatic conditions, no land is classed as irrigable and agricultural except that lying in the valley, the division between valley and hills generally being distinct. On the eastern side there is an area of varying width which differs both from the valley lands and from the distinctly foothill lands. This has been classed as a plains area and is tabulated separately from the valley land in the summaries. In the northern portion of the valley this plains area, which lies mainly above present canal systems, is used principally for grain raising, while in some of the southern sections, as in the vicinity of Porterville, citrus fruit growing has been developed, although in the southern portion, because of the lack of an adequate water supply, the plains in the main have been but little used for agriculture. Lying higher than the plains area and in scattered valleys and flats are agricultural lands which, because of their differences both topographic and climatic, have been classed as a separate division and are discussed under the head of Sierra foothills. The division between these areas is not distinct in many cases and their classification is partially a matter of personal judgment.

Summary of agricultural and irrigated areas in San Joaquin Valley.

Area.	County or counties.	Valley lands.		Plains lands.	
		Total agricultural. Acres.	Area irrigated. Acres.	Total agricultural. Acres.	Area irrigated. Acres.
Areas south of San Joaquin River:					
Southern Kern County	Kern	390,000	115,500	228,000	570
Wasco	Kern	368,000	32,500	81,000	--------
Lands along Buena Vista Slough	Kern	116,000	40,000	----------	--------
Antelope Plains west side valley	Kern	304,000	----------	----------	--------
White and Deer creeks	Tulare	181,000	7,600	37,000	1,430
Porterville	Tulare	162,000	38,010	37,500	11,710
Kaweah River	Tulare and Kings	342,000	117,550	37,000	7,130
Valley lands south and west of Tulare Lake	Tulare and Kings	240,000	58,420	----------	--------
Present area of Tulare Lake	Kings	[1]133,000	----------	----------	--------
Valley lands west of Tulare Lake	Kings	119,000	----------	----------	--------
Alta	Fresno	147,000	93,960	39,000	1,130
Hanford	Kings	226,000	159,360	----------	--------
Fresno	Fresno	535,000	325,400	44,500	1,220
Murphy Slough	Fresno	135,000	77,840	----------	--------
Jamesan	Fresno	130,000	43,000	----------	--------
West side, north of Tulare Lake	Fresno and Kings	763,000	4,580	----------	--------
Totals	----------	4,158,000	1,113,720	504,000	23,190
Areas north of San Joaquin River:					
West side, Firebaugh to Crows Landing	Fresno, Merced, and Stanislaus	367,000	127,250	----------	--------
West side, Crows Landing to Tracy	Stanislaus and San Joaquin	143,000	6,200	----------	--------
West side, Tracy to Bay Point	San Joaquin and Contra Costa	66,000	----------	----------	--------
Madera	Madera	390,000	43,000	112,000	40
Merced	Merced	361,000	84,895[2]	112,000	[3]
Modesto-Turlock	Stanislaus and Merced	315,000	135,760	135,000	--------
South San Joaquin-Oakdale	Stanislaus and San Joaquin	129,000	4,000	110,000	--------
Stockton	San Joaquin	256,000	13,320	73,000	--------
San Joaquin delta lands	Contra Costa and San Joaquin	315,000	177,600	----------	--------
Totals	----------	2,372,000	592,025	542,000	40
Grand totals	----------	6,530,000	1,705,745	1,046,000	23,230

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[1] Not included in total.

[2] Includes all land holding water rights from Crocker-Huffman canal; only 19,500 acres actually received water in 1912.

[3] Not segregated from valley irrigated areas.

The separate areas of San Joaquin Valley division as they have been segregated for study are shown in the accompanying table, the total being 7,576,000 acres, of which 6,530,000 acres are in the valley floor and 1,046,000 acres in the plains area. Of this total, 1,728,975 acres are at present irrigated. The remaining 5,847,025 acres represent the area in which future increases in irrigation will take place. While this land is susceptible of irrigation from some source of water supply, excepting part of the west side, its total extent exceeds that which from present information the water resources can be considered as capable of supplying. The discharge of the main streams has been measured sufficiently to enable their possibilities to be estimated with some definiteness, but the underground resources while known to be large can not be similarly stated.

Records of the discharge of the streams in San Joaquin Valley generally cover longer periods than those for Sacramento Valley, but examinations for storage sites are not available for as much of the drainage area. More use is made of the run-off than in the Sacramento Valley, the natural flow of several streams being quite fully diverted during most of the year. The failure to store the flood waters is due to some extent to the present legal uncertainties which would be involved in any storage which would conflict with riparian right. The year 1897-98 showed the lowest discharge of any of the years covered by stream records. Only the larger rivers were measured during that year, although the five gaged furnished about two thirds of the total discharge. By estimating the others by comparison with other low years, the total mean annual discharge in the year of lowest discharge appears to have been about 4,740 cubic feet per second for the streams from San Joaquin River north, and 2,060 cubic feet per second for Kings River and those to the south, a total of 6,800 cubic feet per second, equivalent to about 4,900,000 acre-feet for the year. This is only 40 per cent of the flow during years of average run-off. The total mean annual run-off as shown by accompanying table has been approximately 12,000,000 acre-feet, or sufficient, if its complete use were practicable, to irrigate 4,000,000 acres at a duty of 3 acre-feet per acre. While the seasonal use of water has been quite largely adapted to the variations in stream-flow, the utilization of the entire run-off would require more storage capacity to equalize both seasonal and annual variations in flow than can be provided at practical costs. The following table gives the general data regarding the mean discharge of the measured streams:

Table showing drainage areas in sqaure miles and mean monthly and annual flow in cubic feet per second of streams in San Joaquin Valley.

Stream and measurement at edge of foothills.	Number of years	Drainage area. Square miles	Mean flow in cubic feet per second.													Total mean annual run-off. Acre-feet.
			October	November	December	January	February	March	April	May	June	July	August	September	Mean flow	
San Joaquin River and north:																
[2]Mokelumne	12	657	136	272	495	847	1,300	1,940	3,040	3,640	3,230	1,320	257	111	1,380	1,000,000
[1]Calaveras	6	491	12	29	135	492	1,172	1,344	1,832	961	217	49	2	0	520	377,000
[2]Stanislaus	18	1,051	232	362	609	1,260	1,970	3,160	4,160	5,010	4,240	1,600	361	179	1,930	1,400,000
[2]Tuolumne	21	1,635	420	694	939	1,700	2,420	3,660	5,380	7,650	7,570	3,140	645	221	2,870	2,080,000
[2]Merced	15	1,090	257	234	473	1,050	1,440	2,300	3,130	4,630	4,190	1,810	452	185	1,700	1,228,000
[1]Bear	6	166	3	4	25	46	171	219	212	67	28	11	0	0	65	47,000
[1]Mariposa	6	122	0	3	20	36	129	162	122	50	22	8	0	0	46	33,000
[1]Chowchilla	6	268	0	9	45	78	359	535	466	172	136	45	3	0	152	110,000
[1]Fresno	6	272	0	0	64	123	392	568	475	194	143	45	5	0	167	121,000
[2]Upper San Joaquin	16	1,640	437	565	889	1,710	1,930	2,330	4,380	8,090	8,520	3,650	1,140	527	2,850	2,060,000
Totals	11	7,392	1,497	2,172	3,694	7,342	11,283	16,218	23,197	30,464	28,296	11,678	2,865	1,223	11,680	8,456,000
South of San Joaquin River:																
[2]Kings	23	1,740	453	447	572	1,170	1,240	2,140	4,090	7,770	8,280	4,000	1,140	464	2,647	1,920,000
[2]Kaweah	13	520	120	107	205	423	628	906	1,280	1,890	1,950	917	230	177	736	533,000
[3]Tule	9	266	32	45	116	274	262	433	467	416	276	84	27	22	204	148,000
[2]Kern	22	2,345	334	343	405	561	708	977	1,699	2,560	2,675	1,500	642	361	1,063	770,000
[1]Caliente	6	423	0	50	100	180	475	562	504	287	110	3	0	0	191	138,000
[1]Poso	6	289	5	34	64	126	325	384	345	198	75	2	0	0	128	92,000
[1]White	6	90	3	11	20	38	101	119	107	61	23	1	0	0	40	29,000
[1]Deer	6	110	4	13	26	49	124	143	131	75	29	1	0	0	49	35,000
Totals	11	5,783	951	1,050	1,508	2,821	3,863	5,664	8,623	13,257	13,418	6,508	2,039	1,024	5,058	3,665,000
Grand totals	11	13,175	2,448	3,222	5,202	10,163	15,146	21,882	31,820	43,721	41,714	18,186	4,904	2,247	16,738	12,121,000

[1] Records California Engineering Department, 1878-84.

[2] Records California Engineering Department, 1878-84, and Geological Survey for remainder.

[3] Records U. S. Geological Survey.

The underground water is one of the greatest water resources of San Joaquin Valley and its use is increasing rapidly, although considering the valley as a whole its development is just beginning. In some localities, as around Stockton and Fresno, pumping plants are now numerous, but further increase in the areas irrigated by this means is being made. Artesian flow can be secured in many parts of the lower valley floor and is used to some extent for irrigation, as at Corcoran and Semitropic. Parts of the west-side areas are the only portion where at least some underground water can not be obtained for irrigation. The ultimate development of 5,000 cubic feet per second from underground sources has been estimated as possible in the entire valley.[1]

The following table shows the area irrigated from wells as given by the census of 1909, and also the area at present irrigated from this source, as determined from the field work for this report, the increase for the three years having averaged 30 per cent per year:

Irrigation from underground waters, San Joaquin Valley, 1909.

County.	Census of irrigation for 1909.			Area reported irrigated in 1912. Acres.
	Area irrigated by pumping plants. Acres.	Area irrigated from flowing wells. Acres.	Total irrigated from ground waters. Acres.	
Kern	4,290	2,097	6,387	12,240
Tulare	31,286	6,656	37,942	75,320
Kings	1,042	11,400	12,442	30,780
Fresno	21,729	------------	21,729	27,620
Madera	1,663	------------	1,663	9,300
Merced	2,002	262	2,264	4,680
Stanislaus	5	------------	5	440
San Joaquin	8,642	------------	8,642	11,380
Totals	70,659	20,415	91,074	171,760

The necessity of irrigation was early appreciated in the southern end of San Joaquin Valley, and farming without it has been attempted but little south of Kings River. The benefits resulting from the use of water have become so well recognized that but little land is dry-farmed except from the lack of an available water supply. In the northern portion of the valley the higher rainfall and more retentive soils in some localities have made profitable the raising of grain, as well as some orchards and vineyards, without irrigation, but these sections are also rapidly coming to an appreciation of the benefits of irrigation.

The climate shows a quite regular variation from the north to the south, the rainfall decreasing from 15.4 inches at Stockton to less than 5 inches at Bakersfield, and the mean annual temperature increasing from 59 degrees at Stockton to 66 degrees at Bakersfield.

A great variety of crops can be grown successfully, which allows the individual farmer much choice in this regard. Forage crops, both alfalfa and wild hay, are extensively raised for both dairy and stock feeding. All classes of deciduous fruits and grapes are produced in large quantities. Sugar beets are successfully grown to a small extent, which will increase, although the present profits from other crops requiring less labor tend to retard increase in beet acreage. But little grain is irrigated except on the large holdings. In the delta lands truck gardening and potato raising predominate. The different sections tend to specialize in one or two crops for which their local conditions may be best adapted, such as sweet potatoes in parts of Merced County.

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[1] U. S. Geol. Survey Water Supply Paper No. 222.

The soils of the valley in general are sandy, sand and sandy loams predominating. Heavier soils occur in some places, as on the overflow lands along the rivers. A considerable proportion, particularly on the east side, is underlaid with hardpan of varying thickness occurring at varying depths. However, this hardpan seriously interferes with cultivation in but a few scattered localities. Over-irrigation and lack of drainage, have rendered much land unproductive from alkali, but proper cultivation and reclamation can restore much of this land to productivity.

The topography shows but few features. Kings River and Los Gatos Creek have built their deltas across the valley, forming a ridge which prevents the waters of the streams south of Kings River reaching the lower valley except upon the occasion of rare floods. The excess flow of the southern streams forms Tulare Lake, which fluctuates in size and depth with the varying stream discharges. San Joaquin River flows west to the trough of the valley and then turns north to form the main drainage for the lower valley portion. Several tributaries, some of large size, join the San Joaquin from the east, but the meager run-off of the west side rarely reaches the river. The streams from the Sierra have generally built deltas into the valley, over which they can be distributed for irrigation without serious difficulties, Kings River being particularly easy to divert. This feature has been of material assistance in the development of irrigation.

San Joaquin Valley has also been prominent in the water-right litigation of the State, the riparian doctrine being first defined in the case of *Lux* vs. *Haggin,* on the Kern River. The large cost and unsatisfactory outcome of the various lawsuits have caused many combinations of interests and compromises over water rights to be made outside of the courts. Much of the water used is now diverted under such compromise divisions, which have proved of more value and stability than any procurable in the courts alone. These conditions have also made it easier for single owners to obtain control of large areas.

KERN RIVER AREAS.

The Kern River area includes the main portions of Kern River delta and the valley and plains lands lying across the southern end of the valley, containing 390,000 acres of valley and 228,000 acres of plains, of which 115,500 and 570 acres, respectively, are reported as irrigated, although the irrigated acreage varies in different years, depending on the discharge of the river. The area is dependent almost entirely for its surface water supply upon the flow of Kern River. The mean annual rainfall, 4.81 inches at Bakersfield, is the lowest, and the mean annual temperature, 66.4 degrees, the highest of any portion of the valley. The area served by the canals lies mainly on the delta which Kern River has built into the valley and north of this delta. Canals now built cover 300,000 acres, of which a total of 176,000 acres are reported irrigated at present, including the areas along Buena Vista Slough and in the valley north of the delta. Considerable information regarding the Kern River and its canals has been published.[1] Records of stream flow cover twenty-three years, the measuring station being at what is known as the first point of measurement, about 5 miles above Bakersfield.[2] The mean annual discharge for the full period has been 1,060 cubic feet per second, equal to 770,000 acre-feet per year, the maximum annual discharge being approximately 2.5 times the mean, and the three years with lowest discharge occurring in succession, 1898 to 1900, averaging 40 per cent of the mean annual flow. The highest stages occur in May and June, the lowest from Steptember to November.

Except Kern River, there are no surface sources of water supply of importance in this area. The other streams have no high mountain drainage areas and as a result have an irregular and small run-off. Discharge records have been published for Caliente Creek,[3] the mean annual run-off for six years being estimated as 138,000 acre-feet. Around the southern end of the valley are a few very small streams, such as El Tejon and San Emidio creeks, which yield a small run-off, San Emidio Creek now being used to irrigate about 100 acres of oranges and deciduous fruits.

The pumping of underground water is being rapidly extended and in many localities gives promise of supplying quite large areas. An area lying around and east of Buena Vista Lake has artesian flow, 112 wells measured in 1905 yielding a total of 70 to 75 cubic feet per second.[4] In 1909, 2,097 acres were irrigated from flowing wells in Kern County. Deep seepage in the Kern River delta is considered to be the origin of this supply. The 114 pumping plants reported by the last census in Kern County irrigated 4,290 acres in 1909. The area reported irrigated from wells in 1912 is 12,240 acres, the construction of electric power lines having stimulated the use of this type of power. The lift varies with the location, being about 30 feet or less in the Kern River delta. The plains area which extends in a broad belt around the southern end of the valley must depend for any future water supply upon pumping from wells or storage of the flow of minor creeks. The pumping of underground water with lifts of from 130 to 230 feet is being practiced near Edison, citrus trees having been planted there. The greater portion of this plains area has not been prospected for pumping supplies, so that any estimate of the extent to which these can be developed for irrigation is impossible. Owing to the small catchment areas and the low rainfall, only limited supplies can be expected, particularly across the southern end of the valley. On the eastern portion nearer Kern River it is possible that considerable quantities can be secured without permanently lowering the ground water, as, where the soil and temperature conditions will permit of the growth of the high-valued citrus fruits, higher lifts will become feasible.

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[1] U. S. Dept. Agr., Office Expt. Stas. Buls. 237 and 239; U. S. Geol. Survey, Water Supply and Irrig. Papers Nos. 17, 46, and 222; U. S. Dept. Agr., Bureau of Soils, Soil Survey of Bakersfield Area.

[2] 1878–84, California Engineering Dept., Physical Data and Statistics, Wm. Ham. Hall, State Engineer, 1886; 1894-1910, U. S. Geol. Survey Water Supply Paper No. 299.

[3] California Engineering Dept., 1878–84, Physical Data and Statistics, Wm. Ham. Hall, 1886.

[4] U. S. Geol. Survey Water Supply Paper No. 222.

Kern River was among the earliest streams used for irrigation in California, and at present utilization of this stream is the most complete of any of the streams in San Joaquin Valley. The legal conflict over water between the upper and lower divertors first brought the riparian doctrine into force in determining water rights in this State, the only working settlement reached, however, being a compromise agreement made outside the courts. The canals are divided into two general groups, the upper consisting of sixteen systems operating under supervision of the Kern County Land Company, and the lower, or Miller & Lux, or Kern Valley Water Company canals, of which storage in Buena Vista Lake is a main feature.[1] The flow of Kern River is measured for division at two points 23 miles apart and an agreement now in force between the two groups provides for division of the water in 6-months periods. The agreement also permits the use of Buena Vista Lake as a reservoir, defines its boundaries, and prohibits storage in Kern Lake. Under this agreement the total flow of the river is quite fully used, diversions continuing throughout the year. Buena Vista Lake has a storage capacity of about 130,000 acre-feet and is used to supply areas to the north. The only water reaching Tulare Lake from Kern River is minor waste from canals flowing to the north or at very high stages through the Goose Lake channel. Kern Island Canal has the prior right to 300 cubic feet per second. This canal and the East Side, Farmers, Stine, Buena Vista, and James canals are the principal canals on the south side of Kern delta, the Beardsley, Calloway, and Pioneer being the chief ones on the north side. The first two cover also lands in the valley outside of the delta proper. All of these are operated under the control of the Kern County Land Company. The Miller & Lux systems consist of an inlet canal into Buena Vista Lake and outlet canals for the irrigation of the Miller & Lux holdings in the valley trough. The various Kern County Land Company systems are reported as irrigating 126,000 acres at present and the Miller & Lux as irrigating 50,000 acres.

Alfalfa and grain are the chief irrigated crops, irrigation in large checks being the rule, the land being owned mainly in extensive holdings where intensive methods are not followed. Much alfalfa is pastured instead of being cut. The soils are variable, sand and peat loams being found on the delta, with considerable clay in the southern and western portion. More or less alkali is found throughout, and also considerable unclaimed swamp land. The water table varies from 2 to 4 feet below the surface near Bakersfield to 12 feet in portions of the delta. The methods and seasonal use of water have been quite largely adapted to the variable flow of the river, water being used whenever obtainable, in some instances pumping also being used to supplement the low flow. The average duty varies from 2.5 to 3 acre-feet per acre.

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[1] U. S. Dept. Agr., Office Expt. Sta. Bul. 239.

Future increase in irrigation in the Kern River area will depend on storage in the upper drainage of Kern River and increased pumping from underground sources. Development from summer surface flow can be considered practically at its limit under present methods. A reconnaissance[1] for storage was made by the Geological Survey and feasible sites for the storage of 153,000 acre-feet reported. The extent to which underground sources can be developed can not be determined from present knowledge. A considerable supply should be obtainable in the Kern River delta under the canals, as the seepage loss is large, measurements indicating a loss in the Kern River alone. between the two points of measurement mentioned above, of 20 per cent of the total flow.

Under present conditions of large holdings any changes in the use of the present gravity supply are not probable, as the present methods are adapted to the cheap and quick irrigation of large areas. Division into smaller holdings would result more in increased production than in an increase in the area which would be supplied from Kern River, and development is more probable along the lines of increased crop returns than in increased acreage.

WASCO AREA.

This area extends from the 7th Standard Parallel south to the north line of Kern County, and from the foothills on the east to the lower lands in the valley trough on the west. This includes 368,000 acres of valley land and 81,000 acres of plains, of which 32,500 acres of valley land are irrigated at present, partly from extension of Kern River canals and partly from underground supplies. Poso Creek is the only stream entering this area for which run-off measurements are available, six years' records giving an estimated mean annual run-off of 92,000 acre-feet.[2] This run-off is torrential and irregular, storage being necessary for its use. The Poso Irrigation District intended to use this stream for the irrigation of 40,000 acres and did considerable construction work, but the project was abandoned. The Calloway and Lerdo canals diverting from Kern River extend to the vicinity of Wasco, alfalfa and grain being the principal crops irrigated. Artesian flow is used to some extent for irrigation in the vicinity of Semitropic, some wells formerly flowing now being pumped, however. Underground water occurs at depths of from 30 to 40 feet near Wasco, above the canals the increase in depths becoming about 100 feet at Famosa and being too great under the plains land to justify pumping for any crops except citrus fruits, which as yet have not been grown here. The underground water under the valley should be capable of supplying several times the present area and development is rapidly taking place, both individually and under the colony system. Owing to the small run-off the locally tributary drainage area, large underground supplies are not to be expected under most of the plains area here, although some pumping for citrus fruits may eventually be done. The existing canals from Kern River at present are constructed to cover more land than they can supply, and increase in the irrigated area will depend almost entirely upon the use of underground supplies, chiefly in the lower valley lands.

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[1] U. S. Geol. Survey Water Supply and Irrig. Paper No. 46.

[2] California Engineering Dept., 1878–84, Physical Data and Statistics, Wm. Ham. Hall, State Engineer, 1886.

BUENA VISTA SLOUGH AREA.

This area comprises the lower valley lands lying along Buena Vista Slough, extending from Buena Vista Lake to the north line of Kern County, consisting of 116,000 acres, of which 40,000 are reported irrigated. The water supply is obtained from storage in Buena Vista Lake, which has a capacity of 130,000 acre-feet and an approximate area of 25,000 acres. The stored water is used for irrigating wild grass, alfalfa, and grain on the large holdings of Miller & Lux. This area was originally a swamp which has been reclaimed, and owing to the heaviness of the soil, drainage after irrigation is required, the drainage water being used again for the irrigation of other lands, general conditions being similar to those in the lower Kern River delta. Artesian flow is found in the northern part of the area and pumping supplies occur generally at small lifts. The area at present irrigated from surface supplies is not susceptible of much increase, but the underground supplies should make feasible the irrigation of more land. Owing to the heavy soils and slow drainage of this area, any changes in present agricultural methods are not to be expected, particularly under the present large land holdings, and colonization is not probable, as the lands seem best adapted for large-scale crop production.

ANTELOPE PLAINS AREA.

This area includes the valley land lying west of the valley trough in Kern County and includes 304,000 acres of which none are reported irrigated. The Coast Range furnishes practically no run-off to the area, the creeks being very torrential, their small discharge sinking before the valley is reached. Both the quantity and the quality of underground supplies are unsatisfactory, the water obtained being strongly alkaline. The irrigation of this area can not be considered possible under any present standards or knowledge, as any surface water supply would have to come from the east side, where in Kern County the present land under constructed systems exceeds that for which water can be supplied.

WHITE AND DEER CREEKS AREA.

This area lies on the east side of the valley in southern Tulare County, extending west to the lower valley around Tulare Lake, and includes 181,000 acres of valley and 37,000 acres of plains land. There are 9,030 acres reported irrigated at present, 7,600 acres being in the valley and 1,430 acres in the plains, underground water being the source for about two thirds of this. White and Deer creeks, the only tributary streams, have small torrential flow, the discharge of which measured from 1878 to 1884 by the California Engineering Department,[1] the estimated mean annual run-off being 29,000 acre-feet for White Creek and 35,000 acre-feet for Deer Creek. The flow of these streams rarely reaches Tulare Lake and generally fails to reach the San Joaquin Valley as late as July. Underground water is being developed at many places, flowing wells occurring west of the main line of the Southern Pacific and pumped supplies at lifts varying from 20 to 30 feet in the lower valley, increasing to from 60 to 120 feet on the plains. Considerable development for citrus fruits is taking place in the higher portions of the valley lands and in the plains. The groves, while largely too young for bearing at present, are expected to produce as well as those near Porterville. The soil is a reddish sandy loam, with hardpan occurring in parts of the plains at depths of 6 feet or less. In the lower valley the groundwater rises close to the surface and much of the soil is impregnated with alkali. Much of the non-irrigated land is dry-farmed to grain. The most important canal system is the Deer Creek Consolidated Ditch, which irrigates 3,000 acres near Saucelito, alfalfa being the principal crop irrigated. The water is used when available but owing to the small amount and irregular character of the surface flow, no increase in the area at present irrigated by this means is probable, even through storage. While more expensive because of the higher lifts, irrigation from pumps in the plains area will be carried to the limit of the water supply, because of the valuable citrus fruits which can be grown here. As this area is not supplied by any local streams of size the underground supply is more easily exhausted, replenishment coming from the slow general percolation in all directions from the porous delta of the larger streams.[2] While the local additions are probably similarly small in the lower valley lands, the underground water is considered to be a direct part of the general body underlying the whole valley and therefore not so easily exhausted, although present use is reducing the artesian flow in some cases and making pumping necessary on wells formerly flowing. While the limited extent of the water supply will probably prevent the irrigation of more than a small part of this area, such use of underground supplies as may be feasible will allow a material increase in the area at present irrigated.

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[1] California Engineering Dept., 1878-84. Physical Data and Statistics, Wm. Ham. Hall, State Engineer, 1886.

[2] U. S. Geol. Survey Water Supply Paper No. 222.

PORTERVILLE, OR TULE RIVER AREA.

This area includes the land adjacent to Tule River and that traversed by its sloughs, extending from the White and Deer creeks area on the south to the Kaweah River area on the north. It includes 162,000 acres of valley and 37,500 acres of plains, of which 38,010 and 11,710 acres, respectively, are reported irrigated, although the area watered varies from year to year with the supply available. In years of high stream-flow, 14,000 acres additional are irrigated near Tulare Lake. In the plains of this and the Kaweah areas are included some land which, while it might properly be classed with the foothills, yet is not sufficient in total area to make its separate treatment advisable. This foothill land consists of a narrow strip now generally planted to citrus fruits, extending for a short distance up the steep slopes, and of a few small coves of cultivable land which are more or less separate from the main valley.

Two discharge records have been kept on the Tule River, which is the only stream of importance in this area.[1] The later records of the Geological Survey at their station above the mouth of South Fork show a mean annual run-off of 204 cubic feet per second, equivalent to 148,000 acre-feet per year. South Fork furnishes but little water during the summer season. The discharge in the maximum year of record was 2.3 times that of the mean, and in two years in succession the run-off was slightly less than one half the mean. The largest flow occurs from March to May, August and September being the minimum months. It is only during flood periods in the spring that any water reaches Tulare Lake. Not considering waste, the natural flow is as fully utilized already as is practicable, and any increase in acreage must come from storage, opportunities for which are not considered favorable. Underground supplies have been largely developed in the upper portions where valuable citrus fruits can be grown, the lifts being from 75 to 100 feet and more. The extent to which the underground supplies can be drawn upon in these higher portions is uncertain, some lowering of the ground water level having already been observed in places. Artesian flow can be obtained in the lower portions of the Tule River delta. The pumping lifts in the intermediate lands are comparatively low and the quantities of water available are greater than on the higher areas.

Irrigation from the Tule River began in 1859 and development has been characterized by the building of many canals, some of considerable length, others being short openings in the stream-bank for flooding purposes. The total area covered is approximately 200,000 acres, the systems of the Tule River and Tipton irrigation districts having been abandoned because of difficulties over water rights and the building of other canals for larger areas than could be supplied. There has been much litigation over water rights without reaching any general settlement. In 1909, 37 of the lower riparian owners secured the right to 400 cubic feet per second during the twenty-two days from March 19th to April 10th as against all the upper ditches.[1] This amount is considered sufficient because the valley land along the river is ordinarily irrigated but once each season. The alfalfa on the upper lands is irrigated two or three times as water is available. On the plains and higher valley lands where frost conditions permit, as in the vicinity of Porterville, citrus fruits are the predominating crop, the early ripening of oranges giving them an advantage in the market. The soils in this portion vary from clay loams to clay adobe.[2]

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[1] 1878-84, California Engineering Dept., Physical Data and Statistics, Wm. Ham. Hall, State Engineer, 1886; 1901-10, U. S. Geol. Survey Water Supply Paper No. 299.

Future development in this area will be by increased returns from the use of surface flow by reduction of present losses in canals, and by increasing the area irrigated from wells, which source may be made to supply several times the acreage in the valley lands at present receiving water from underground sources. Changes from the present forage crops to the more profitable ones also are probable in the lower portions of this area.

KAWEAH RIVER AREA.

The Kaweah River area lies between the Tule and Kings River areas and includes the lands tributary to the Kaweah River, extending west to the lower lands irrigated from underground sources around Tulare Lake. There are 342,000 acres of valley land and 37,000 acres of plains, of which 117,550 and 7,130 acres, respectively, are reported irrigated. The area irrigated in the lower lands varies quite largely from year to year, depending on the available water supply. There are 20,000 acres additional irrigated from the Kaweah River by the Settlers Ditch in the lower Kings River area.

Kaweah River is characterized by the several channels into which it tends to divide after reaching the valley. Except as controlled for irrigation purposes, these channels are shifting and the maintenance of diversions has required much work and expense. Stream records for two periods are available, 1878–84 by the California Engineering Department and 1903–10 by the United States Geological Survey,[3] the average of all records giving a mean annual run-off of 736 cubic feet per second, equal to 533,000 acre-feet per year. In the maximum year the discharge was approximately twice and in the minimum year one half of the mean. May and June are usually the months of highest flow, averaging about 1,900 cubic feet per second, during September to November the discharge often falling below a monthly mean of 100 cubic feet per second. During the high stages excess water reaches Tulare Lake; during low stages all the flow not diverted by the upper canals sinks in the river bed. The natural flow is now as fully diverted for direct use as can be expected. The storage of flood waters would add to the low flow and increase both the acreage and value of the crops raised. Although no data regarding possible storage sites are available, some development should be practicable.

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[1] U. S. Dept. Agr., Office Expt. Stas. Bul. 239.

[2] U. S. Dept. Agr., Bureau of Soils, Soil Survey of Porterville Area.

[3] California Engineering Dept., Physical Data and Statistics, 1886; U. S. Geol. Survey, Water Supply Paper No. 299.

Irrigation with water from underground sources is increasing. Artesian strata underlie the lower portions of the delta, while in the higher valley and plains the lift varies from 50 to 100 feet. Seepage from Kaweah River and its canals furnishes the underground supply, which occurs in the largest quantities near the river and in the least quantities in the portions of the plains more distant from the large streams. In the southern part of the plains in this area, near Lindsay, the groundwater level fluctuates with the seasonal use due to the many plants operating. Much of the land in the Kaweah delta, around Visalia, receives water by subirrigation. In some cases the rise of ground water has been sufficient to injure crops, but no comprehensive plans for drainage have as yet received consideration. Irrigation from the Kaweah River began in 1853. The floods of 1861–62 made material changes in the main channels and were the beginning of complications which have resulted in many conflicts, it being estimated that $400,000 has been spent in litigation.[1] There are two associations of canal companies composed of those diverting from the St. Johns River and Kaweah River channels, respectively, which operate under an agreement as to the division of the water. When the flow exceeds 80 cubic feet per second it is divided between the two channels; when less than this amount it all passes into the Kaweah channel.

Sixty-two canals divert from the Kaweah River, although only 107,000 acres of the 203,000 acres covered by constructed systems are irrigated. Practically all are managed coöperatively, the individuals receiving water in proportion to the stock held in the ditch companies. Tulare Irrigation District includes 37,400 acres, of which about 12,000 acres are usually irrigated, the area varying in different years with the water supply available. The history of this district, which was organized in 1889, has consisted largely of dissension and difficulties with the holders of the $500,000 of district bonds. These were purchased for $273,000 in 1903, a single levy of 36 per cent of the assessed valuation being made for the purpose. Conditions are improving and irrigation can be expected to increase.

In the lower lands alfalfa and pasturage are the crops of largest acreage, dairying being an important industry. In the vicinity of Exeter and Lindsay, in the so-called thermal belt, extending along the higher valley and plains lands, citrus fruits are successfully grown. The soils and land values of this area are similar to those in the Porterville, or Tule River, area. Any increase in the irrigated areas will come from a better use of present diversions through improvements in canal systems and administration, the rise of ground water in some localities indicating over use. Increase in pumping in the lower delta lands should serve the twofold purpose of increasing the irrigated area as well as tending to partially relieve the poor drainage conditions. The use of storage, if feasible, and extension of the use of underground supplies will permit of the production of higher valued crops requiring late season irrigation, which at present cannot be sure of securing water when needed. While the sub-surface resources may be at present developed quite fully in the higher areas, much opportunity for their use in the valley lands yet remains and it is here that the largest increase in irrigated acreage is to be expected.

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[1] U. S. Dept. Agr., Office Expt. Stas. Bul. 239.

TULARE LAKE AREA.

The Tulare Lake area consists of the lower land lying on the south and west of Tulare Lake in Kings and Tulare counties, watered partially by Kaweah and Tule river water but more largely by underground supplies. There are 240,000 acres of agricultural land exclusive of the present area of Tulare Lake, of which 58,420 acres are reported irrigated, 14,000 being supplied from the Tule River during times of flood flow and 44,420 from artesian flow and pumped wells. The area of the lake as partially controlled by levees at present is 133,000 acres. When at an elevation of 220 feet, at which stage it overflows to the north, the area is approximately 500,000 acres. All unused flow of the drainage area from Kings River south, excepting the part of Kings River discharge which flows directly to the San Joaquin River through the sloughs to the north, reaches Tulare Lake. Since the settlement of the valley the lake surface has varied from overflow stage to entirely dry, the last overflow being caused by the floods of 1861-62. Since then it has fluctuated, gradually declining until in the summer of 1905 it was entirely dry. As the area of the lake decreased, the exposed land was settled and farmed to grain, practically the whole area at one time being cultivated. The high run-off of the streams in 1906, the discharge being twice the mean, caused the lake to rise, submerging 300 square miles including much grain and improvements. The lake continued to rise until 1909 and has since been slowly receding. Increase in diversions for irrigation will prevent the flow of water to the lake in any but small quantities except in years of excess stream flow, such as 1906. The recurrence of such stream conditions can be expected more or less periodically. Such years as this will always cause the accumulation of much water in the lake bed, unless provision is made in the Kings River channels for diverting these flood water to the north to San Joaquin River, which is considered to be physically feasible. The cutting of the Kings River delta and the draining of Tulare Lake to the north for the irrigation of lands on the west side of the San Joaquin Valley was at one time contemplated, but the uncertainty of the supply has caused the abandonment of this project. At present much of the original lake bed is cultivated, the present lake being partially restrained by levees.

The present irrigated areas are supplies most largely from ground water resources. Development has been largely under the colony system, the wells being constructed for the whole colony and the land then sold in small tracts. Both artesian wells 900 to 1,600 feet deep which yield from 5 to 40 miner's inches of water each[1] and shallow wells which are pumped are used. Alfalfa, grain, and vegetables are the principal crops, a considerable acreage having been used for sugar beets. The underground waters here are part of the general valley body and should be capable of much use without exhaustion, although some wells formerly flowing now require pumping. Irrigation here is independent of the variations of stream flow, water being available as needed, permitting the more intensive and profitable cultivation. Development has taken place most largely along the eastern portion of the area where transportation facilities are better. Further increase here as well as in the southern part of Kings County is to be expected.

VALLEY LANDS WEST OF TULARE LAKE.

These lands totaling 119,000 acres comprise Kettleman Plains, McLures Valley, and the west-side areas in southwestern Kings County. Like the west-side areas farther to the south they are practically devoid of a water supply, the surface run-off of the tributary drainage area being negligible in amount and the underground supplies being, so far as is known, of great depth, small quantity, and doubtful quality. Any irrigation, except possible along the margin of Tulare Lake from artesian supplies, or any agricultural use of this area cannot be considered practicable by any present standards or knowledge.

KINGS RIVER AREAS.

In the agricultural area dependent mainly upon Kings River for a water supply, extending from Kaweah and Tulare Lake areas on the south to San Joaquin River and San Joaquin and Kings River Canal on the north, there are a total of 1,936,000 acres of valley and 83,500 acres of east-side plains, of which 704,140 and 2,350 acres, respectively, are reported irrigated. Of the irrigated area 628,780 acres are supplied by gravity canals from Kings River, 34,100 acres by pumping from underground supplies, and the remainder from San Joaquin or west-side canals. For convenience of discussion the total area is later separated into six divisions.

Kings River has built a delta which with that of Los Gatos Creek on the west side reaches across the trough of the San Joaquin Valley forming a barrier over which, in recent times, the streams to the south have rarely been able to flow. The ease with which the river can be diverted and carried to various delta lands has led to a larger irrigation development than that from any other single stream in the State. Much of description and investigation has been published concerning the various phases of this development.[2]

Kings River is one of the three largest streams in San Joaquin Valley, the twenty-one years of published records showing a mean annual run-off of 2,650 cubic feet per second, equal to 1,920,000 acre-feet per year.[1] May and June are the months of highest flow, averaging about 8,000 cubic feet per second. The mean discharge in September falls to 460 cubic feet per second. The annual variations in discharge are similar to other San Joaquin Valley streams, the maximum annual discharge being twice and the minimum annual discharge a little less than one half of the mean. During high stages the flow of the river divides, part following the main channels to Tulare Lake and part the sloughs to the north, finally reaching San Joaquin River. In years of low or medium flow but little water is unused, but in years of large flow a considerable amount is undiverted.

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[1] U. S. Geol. Survey Water Supply Paper No. 222.

[2] U. S. Dept. Agr., Office Expt. Stas., Buls. 100, 217, 237, and 239; U. S. Geol. Survey, Water Supply and Irrig. Papers Nos. 18, 52, and 222; U. S. Dept. Agr., Bureau of Soils, Soil Surveys of Fresno and Hanford areas.

Irrigation first began from Kings River in the early sixties and has increased until at present 628,780 acres are reported irrigated out of a total area under constructed systems of 800,000 acres. Much litigation has arisen over water rights, present diversions being made chiefly under agreements among the larger companies which have been embodied in court decrees, the tendency of continued litigation having been to cause combinations of canal systems and compromises as to water used.

The natural flow of Kings River is diverted directly to as great an extent as is practicable. Any large additional canals under present conditions would receive water for too short a period during high stages for their construction to be feasible, unless the water supply can be supplemented from storage or pumping, and except as it is found feasible to use water in spring only. The rise of ground water is causing the use of less water in many cases, thus allowing additional areas to be served, although the difficulties with drainage tend to balance this advantage, so that no extensive increase in area can be anticipated from the direct use of natural flow. The most favorable opportunities for increase are by pumping from the underground waters and by the storage of the unused flood flow. But little good land remains unirrigated on the east side of the valley and any large new supplies which are developed will probably be carried to the west side. The possibilities for storage of flood flows have been investigated and reservoir sites with a total capacity of 340,000 acre-feet reported,[2] a water supply being considered available for the various reservoirs. By increasing the height of the proposed Pine Flat Reservoir to 270 feet, it is estimated that a storage capacity of 400,000 acre-feet can be obtained at practicable costs. The construction of such storage would permit either an increase in irrigated area, or furnish late season water to present areas, thus increasing the yield from alfalfa and other crops. Any attempt to store flood waters in the Sierra under present water-right conditions except by agreements with present canal systems would probably be impracticable, because of the litigation which it would be liable to provoke.

The development and use of underground water will be the source of the greatest increase in the area irrigated from Kings River. Continued irrigation has raised the groundwater until it has rendered much land unfit for cultivation, so that the removal of this water for use would be of twofold advantage. The quantity which it will be practicable to develop cannot be estimated until it has been at least partially tested. In drainage investigations which were made in 1906[1] it was estimated that the annual removal of three quarters of a foot in depth of water over an area of 200,000 acres in the vicinity of Fresno would relieve the harmful conditions at that time. Considering the delta as a whole it is probable that 300,000[2] acre-feet or more will be annually available by pumping, or sufficient for the irrigation of 120,000 acres or over at a duty of 2.5 acre-feet per acre. The use of this drainage water on the west-side valley has been projected, although it is not known how much of this ground water it will be practicable to recover. The irrigation census of 1909 reported 888 pumping plants in Fresno County and these are being increased rapidly, the largest number being in the vicinity of Fresno. Artesian flow can be secured in the lower valley lands extending from the Kings River to the San Joaquin. In general, ground water can be secured at lifts of 30 feet or less, in some portions of the lower delta water occurring within reach of plant roots, which condition has caused much damage from alkali. The pumping of ground water would be of general benefit to the lands now affected by high water-table, and is the more probable means by which any future development will be undertaken. While at present the use of water during short periods of large supply may be excessive, the general average amount applied is not likely to be materially reduced, the mean annual flow of Kings River when divided by the area at present irrigated indicating a mean gross duty of about 3 acre-feet per acre, and in years of low discharge much less water is available. With a general and more definite determination of present rights the use of any excess flow either directly or by storage will become practicable.

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[1] 1878–84, California Engineering Dept., Physical Data and Statistics, Wm. Ham. Hall, State Engineer, 1886; 1895-1910, U. S. Geol. Survey Water Supply Paper No. 299.

[2] U. S. Geol. Survey Water Supply and Irrig. Paper No. 58.

ALTA AREA.

This area includes Alta Irrigation District, with its adjacent valley and plains lying north of the Kaweah area and south of Kings River. There are 147,000 acres of valley land and 39,000 acres of plains, of which 93,950 and 1,130 acres, respectively, are reported irrigated, Alta Irrigation District including 130,000 acres of the valley land, of which 90,000 acres were irrigated in 1912. The remaining valley land lies in small pieces along Kings River bottoms and also above the Alta canals. There are 2,200 acres irrigated from Kings River along the river bottom outside of Alta Irrigation District, the remaining 1,760 acres being irrigated from pumps. Alta District purchased and extended the canals and rights of the Seventy-Six Land and Water Company, the water rights of which call for 800 cubic feet per second. However, this is subject to other priorities, so that their supply usually ceases during July, some water being also received in October and November by agreement with earlier rights. Conditions vary from small, prosperous holdings in vineyards and fruit, as around Reedley and Dinuba, to lands needing drainage which furnish pasturage only, as around Traver. The district encountered many legal difficulties both as to water rights and district bonds, but these matters have now been arranged and the district affairs are in an improved condition. The use of water is excessive in many cases and the losses through seepage in the canal are high. An increase in the irrigated area with the present water supply should be feasible, as more of the land is placed in the better paying crops and more careful methods of irrigation are practiced. Underground water at shallow depths underlies the valley lands and can be pumped during the later season to supplement the canal water. Some of the lower parts of the district are seriously in need of drainage and by remedying this a continuation of the present rate of progress is to be expected. Citrus fruits are successfully grown on the higher valley and the plains land, water being usually obtained by pumping from the canals or from wells, the lifts from the latter generally varying from 50 to 80 feet. Further increase in the irrigated area should be feasible in the plains lands, although the amount of water which the underground supplies can furnish without depletion may be limited in the more unfavorably situated portions.

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[1] U. S. Dept. Agr., Office Expt. Stas. Bul. 217—Drainage of Irrigated Lands in San Joaquin Valley, issued 1909.

[2] U. S. Geol. Survey Water Supply and Irrig. Paper No. 58.

HANFORD AREA.

Lying below the Alta area on the south side of Kings River in Kings County and extending to the trough of the valley and to Tulare Lake one the west and south is an area of 226,000 acres, of which 159,360 acres are reported irrigated, the areas irrigated under the different canal systems being reported as follows: Peoples Ditch, 60,000 acres; Last Chance Canal, 35,000 acres; Lemoore Canal and Irrigation Company Canal, 30,000 acres; Lakeside Canal, 20,000 acres; Empire Canal, 12,000 acres; pumping from wells, 2,360 acres. All these canals obtain their supply from Kings River, except Lakeside Canal, which receives Kaweah River flood water. Much of this area is subirrigated and in many places on the lower lands the high ground-water level has caused much damage from alkali and water-logging. About one half of the acreage is in alfalfa and one half in trees and vines, the lower areas being used most largely for the forage crops and the higher lands in the vicinity of Hanford for the fruit crops. The soils are sand and sandy loams.[1] The canal systems are owned coöperatively, the amount of water received and the charges paid being proportioned to the amount of stock owned. It is through the lower portions of this land that the waste and flood waters of Kings River reach Tulare Lake. Artesian and pumping supplies underlie the areas at present unirrigated, and with more economic use of the flow of the canals, a water supply should be available for that part of the remaining unirrigated lands whose soil and drainage conditions make improvement feasible. With ground water so close to the surface, its control is as important as irrigation.

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[1] U. S. Dept. Agr., Bureau of Soils, Soil Survey of Hanford Area.

FRESNO AREA.

The largest section irrigated from Kings River, which is generally referred to as the Fresno plains, lies between Kings and San Joaquin rivers, extending from the foothills on the east to the lower valleys and slough areas on the west. There are a total of 535,000 acres of valley land and 44,500 acres of plains, with 325,400 and 1,220 acres, respectively, reported irrigated. The Fresno Canal and Irrigation Company and the Consolidated Canal Company, which are under one management and form the largest single irrigation enterprise in the State, include 207,000 and 90,000 acres, respectively, of the area reported as irrigated. Water rights are issued by these companies on the basis of 1 cubic foot per second for each 160 acres, each right being for a proportional part of the flow in the canal and fixed on some specific tract of land. Second-class water rights have also been sold to waters possessed by the company in excess of the original appropriations. There is an annual rental charge of 62½ cents per acre under the Fresno system and 75 cents under the Consolidated, only water-right contract holders being permitted to receive water. Emigrant Ditch irrigates about 2,000 acres in this area, and the remaining 26,400 acres are supplied by pumps. The excessive use of water has caused the ground water to rise sufficiently high with its attendant alkali in some cases to kill trees and vines and much of the western part of this area is in immediate need of drainage. The soils are generally sandy, both the red or granitic and the white or ash soils occurring.[1] Hardpan is found at varying depths, being less than 3 feet below the surface on portions of the plains and higher valley lands.

This district is particularly noted for its raisins, raisin grapes being the predominating product, and table and wine grapes, deciduous fruits, alfalfa, and pasture the other principal crops, the alkali and lower lands being largely used for pasture.

The area is quite completely developed at present, many pumping plants supplying water to supplement the canal water in the low water season, as well as to entirely supply lands which receive no canal water. Any large increase in irrigated area by new projects is not to be expected, as the remaining unirrigated lands lie chiefly in the lower valley where soil conditions are not as favorable as on the unirrigated lands of the west side, where any large future water supply is most likely to be used. The removal of ground water for use elsewhere or for drainage purposes alone would be a material improvement for large areas, and is the most probable course of development. Higher canals covering the plains land are not probable and it would seem that future irrigation there as at present will mostly be confined to the use of the very small local run-off and to water pumped for citrus fruit, the extent of the underground supplies under the higher portions being largely untested.

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[1] U. S. Dept. Agr., Bureau of Soils, Soil Survey of Fresno Area.

MURPHY SLOUGH AREA.

Lying north of Kings River in the lower valley and along the sloughs leading to San Joaquin River is an area of 135,000 acres, of which 77,840 acres are irrigated as follows: Laguna de Tache canals, 30,000 acres; various canals of Summit Lake Investment Company, 14,880 acres; Crescent Canal, 11,840 acres; Stinson Canal, 10,080 acres; Millrace Ditch, 3,840 acres; Liberty Canal, 4,640 acres; and Reed Canal, 2,560 acres. While some of these systems are among the oldest diverting water from Kings River and the areas irrigated have not changed materially for some years, the area irrigated is now being increased by the Summit Lake Investment Company, which is engaged in reclaiming land north of Summit Lake in the vicinity of Lanare. Alfalfa is the most important crop in this section, stock raising and dairying being largely followed. This section consists largely of the lower valley lands, and the high ground water and lack of adequate drainage have caused much damage from water-logging and alkali and prevented the successful raising of trees and vines in some portions of the area. With care in the use of water and drainage where practicable, a considerable increase in the irrigated area should be feasible both from canals and from underground sources, although it is not to be expected that the intensive and highly developed agriculture such as is found around Fresno will become general here.

JAMESAN AREA.

Lying along the valley trough north of the Murphy Slough area and extending to the lands irrigated from San Joaquin River canals is an area of 130,000 acres, of which 43,000 acres are reported irrigated, 29,000 acres of grazing land being flooded from Fresno Slough when Kings River is high. Of the land irrigated, 10,500 acres are in Tranquillity Colony, the James ranch including the flooded grazing land only. A water supply for 1,300 acres on the Borland ranch and for 4,500 in Tranquillity Colony is obtained by pumping from Fresno Slough. One thousand acres on the Mowrey ranch receive water directly from San Joaquin River through Herminghaus Ditch. The water pumped from Fresno Slough is in part backwater from San Joaquin River and in part flood and waste water from Kings River, depending on the relative stages of the two streams. General conditions are similar to those in the Murphy Slough area, alfalfa, corn, grain, and pasture being the principal crops. Further development of the portions of this area where soil and drainage conditions warrant should be feasible, the land lying so as to be susceptible of irrigation from either Kings or San Joaquin River. With the exception of the Tranquillity Colony, the land is held in large tracts mainly by the James and the Miller & Lux interests. Pumping plants obtaining water from wells are used to irrigate 1,220 acres near Mendota, the deeper and partially artesian supplies being used.

WEST-SIDE LANDS NORTH OF TULARE LAKE.

Lying north of Tulare Lake and extending through Fresno County between the lower valley lands and the edge of the west-side hills is a broad strip of arid land containing 763,000 acres, of which only 4,580 acres are irrigated by the local west-side streams. The valley land on the west side of San Joaquin Valley is not as broad as that on the east, the larger amounts of débris brought down by the eastern streams having carried the valley trough west of the center of the valley. But little development has taken place on this side because of the lack of an adequate water supply. The local streams rise in the generally low and barren Coast Range, the precipitation on which is small and the run-off torrential and unreliable. The ground water underlying the area is generally too alkaline for either plant or stock use, besides occurring at great depth and being of small quantity. All agricultural conditions except water supply are very favorable, and several methods of obtaining water have been proposed. This area comprises the largest body of these west-side lands and lies above the reach of gravity canals which might be carried across Kings River delta. Kings River must be depended upon for any water supply of considerable quantity, although the San Joaquin River might be available for a portion of the northern end. Los Gatos and other small creeks carry some irregular flood flow which it may be feasible to store and use through quick flooding for the irrigation of some small areas, as is being done by the Belmore Land and Water Company on Panoche Creek, where 4,000 acres are being irrigated. The total area, however, which can be developed must be small. The use of underground water as at present known cannot be relied upon. As shown in the discussion of Kings River the surface flow of this stream is quite largely diverted, the only opportunities for obtaining a supply from Kings River being either by using Sierra storage or by the pumping of underground water in the Kings River delta and pumping again from the valley trough. The quantity of these underground waters which can be developed cannot be estimated closely. Kings River delta is underlaid at small depths with a comparatively abundant supply of underground water and it may be feasible to recover much of this. It is not improbable that one quarter of the flow of Kings River reaches this underground reservoir, although there is no definite basis available on which an estimate of this can be made. One quarter of the total mean flow would give nearly 500,000 acre-feet annually, or sufficient for 200,000 acres at a duty of 2.5 acre-feet per acre. The use of this water would require pumping from scattered wells on the east side, conveying to the valley trough and raising to the points of use on the west-side lands, so that the recovery of over one half to two thirds of this is all that may be expected. Investigations of the possibilities of irrigating the lower portion of these lands by these means have been made and the construction of systems of greater or less extent is probable. The quality of the soil, freedom from underlying hardpan, even slopes, and climatic conditions would make this land very attractive if a water supply can be provided, and these agricultural advantages are considered to be sufficient to make feasible the additional cost of conveying the water across the valley trough. The elevation of the highest point in the valley between Kings River and Los Gatos Creek delta fans is approximately 210 feet. Lying between the limit of gravity canals from the valley summit and the 250-foot contour are over 200,000 acres, while probably 150,000 acres more lie below the 300-foot contour. Owing to the length of canals necessary to reach all of this land, the actual lifts required would be in excess of that indicated above, but there should be sufficient land at a feasible lift to utilize whatever water supplies may be secured. The remaining and larger part of this area must be considered as non-irrigable by any present standards of cost and water supply, the highest portion being over 150 feet above the center of the valley and any water supply which may be secured will not be sufficient for even the lower areas.

AREAS WEST OF SAN JOAQUIN RIVER.

Lying west of the San Joaquin River largely below the San Joaquin and Kings River Canal and extending north to Tracy is an area of valley land of varying width and characteristics which is dependent practically wholly upon San Joaquin River for a water supply. The east side of the valley, while of much larger extent, is generally well supplied by the local Sierra streams, and with the exception of Madera County and the low valley lands is more easily irrigated by these tributaries. Unlike the west-side lands farther south, in this area gravity diversions can command the greater part of the area, although on the more northern lands it is probably more practicable to pump from the river than to convey the water in the long gravity canals which would be required. The local west-side streams are of small torrential flow and while they may be quite fully utilized through storage they can never supply more than a negligible part of the whole. San Joaquin River has been used more for the irrigation of alfalfa, grain, and pasture land and less for the higher valued orchard and vineyard products than the other streams. The high banks which border the river as it flows west to the trough of the valley have prevented its early diversion there and the ease with which it can be carried to the generally flat areas in the lower valley floor has made its use on these the more natural development. The owners of large holdings of Spanish-grant and swamp-lands have so largely controlled riparian rights as largely to control the flow of the river. Records of the discharge of the San Joaquin covering sixteen years are available.[1] These measurements were made at the edge of the foothills above any diversions. The mean annual flow for the full period has been 2,850 cubic feet per second, equivalent to 2,060,000 acre-feet per year. May and June are the months of greatest flow, the mean flow for June being 8,500 cubic feet per second. The flow decreases to an average of approximately 500 cubic feet per second from September to November. The total annual run-off in the year of maximum discharge of record was a little over one and one half times and in the year of minimum discharge a little less than one half of that of the mean annual discharge. Under present conditions the flow of San Joaquin River in its upper valley portions is quite fully diverted. Any further extensive diversions without storage could obtain water, if at all, for too short periods during high flow to enable crops requiring more than flooding to be certain of receiving sufficient water. The dependable part of the flow is now used quite fully for various crops but mainly for alfalfa and grain. That portion of the flood flow which is of short duration is used for flooding pasture lands either in natural overflow areas along the bottoms or by artificial methods. Any material increase in amount or value of the returns from the use of San Joaquin River water must come from a more economical use of present supplies or from the storage of the flood flow for use on crops of larger return than the pasturage at present irrigated. The acreage under present canals is being gradually increased and further economies will continue this increase. The storage of flood waters is probably physically feasible to a considerable extent, although no actual records of reservoir sites are available. The San Joaquin Light and Power Company is storing some water in the mountains and reservoir sites are reported to exist near Friant if feasible foundations for a dam can be secured. Unless such storage is undertaken by the controlling riparian owners, under the present conditions the legal difficulties will probably be greater than the engineering ones. There are areas lying above the flood limits and also above present irrigation, both on the west side and in Madera County, which can be covered by canals at a feasible cost if an assured water supply can be provided, and the use of the San Joaquin is as yet much short of its possibilities both in acreage and in value of crop returns.

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[1] 1878-84, California Engineering Dept., Physical Data and Statistics, Wm. Ham. Hall, 1886; 1895-1901 and 1907-1910, U. S. Geol. Survey Water Supply Paper No. 299.

FIREBAUGH TO CROWS LANDING.

Extending from near Firebaugh to Crows Landing is an area consisting of the lands under the San Joaquin and Kings River Canal and the higher valley lands north of Fresno County, which includes 367,000 acres of valley land, of which 127,250 acres are irrigated. Also 40,000 acres of uncropped grazing land are flooded from branches of San Joaquin and Kings River Canal. San Joaquin and Kings River Canal, 72 miles long, with a total diverting capacity of about 1,550 cubic feet per second, is the largest of the canals diverting water from San Joaquin River. The total area between the canal and the river is 333,000 acres, of which approximately 50,000 acres consists of the lower-lying lands subject to more or less overflow, although this area may be increased in seasons of abnormally high water. There were 125,100 acres irrigated in 1912 under San Joaquin River and Kings River Canal, including both small holdings and lands of Miller & Lux, water delivered by the canal company being charged for on an annual rental basis.

The slough and overflow areas lie in the northern and eastern parts of the area. Waste water from the canal and flood waters from the river are used to flood the native grasses, large checks having been built which enable extensive areas to be irrigated quickly. Owing to their small elevation above the river and liability to flood, this use is perhaps the most feasible one for these lands, and the crop limitations due to these conditions will probably prevent any more intensive use being made of a large portion of this area as higher and more easily reclaimed lands are available elsewhere for all the dependable water supply which can be developed. The valley lands not subject to overflow and below San Joaquin and Kings River Canal consist mainly of Miller & Lux holdings and of colonies which have been sold by them. Alfalfa and other forage crops predominate, stock feeding and dairying being the main industries. The irrigated lands below the canal are generally flat, with clay loam soils predominating, which become heavier as the river is approached, considerable alkali also being found in the lower portions. Alkali reclamation is being successfully accomplished where a water supply for such purpose can be procured. Although the late-season water supply is less than desired, good returns are secured and the irrigated area is being continually extended by more economical use of the canal water.

Lying above the canal is a strip of valley land of 64,000 acres, varying in width from practically nothing west of Los Banos to strips from 3 to 8 miles long on the local creeks. Of this, 2,150 acres are irrigated by creeks and some by pumping from the canals. Much of the area in the northern part is dry-farmed to grain, some adjacent higher rolling land also being used for grain raising. Because of the difficulty of irrigating, even if a water supply were available, it is excluded from the classifications of this report. Practically the whole of these lands lie at elevations of less than 60 feet above the present canal and pumping would be feasible if the water is made available in the canal. Underground water occurs irregularly both as to quantity and quality, and at no place above the canal has a sufficient supply of good quality been found for use in irrigation. Although there are some wells supplying potable water for domestic use, the underlying water is generally deep, alkaline, and scarce. Various small torrential streams, such as Crow, Orestimba, Quinto, Romero, San Luis, Los Banos, and Ortigalita creeks, drain the coast range. Of the 2,150 acres irrigated above the canal from creeks, 650 acres are irrigated during the flood period from Los Banos and San Luis creeks, 1,300 acres from Orestimba Creek, and 200 acres from Crow Creek. A reservoir is being constructed on Quinto Creek from which it is planned to irrigate 700 acres. A site having a capacity of 17,500 acre-feet has been surveyed on Los Banos Creek, which will probably be ultimately developed, as the run-off from over 150 square miles of drainage area, having a rainfall of from 12 to 20 inches, is considered sufficient to fill the reservoir. The use of the various available sources will ultimately supply much of this higher area, the possibilities being much more encouraging than for the larger similar areas farther south.

CROWS LANDING TO TRACY.

This area, containing 143,000 acres of valley land, of which 6,200 acres were irrigated in 1912, extends from the lower end of San Joaquin and Kings River Canal to the delta and overflow lands at the northern end of San Joaquin Valley. While an extension of San Joaquin and Kings River Canal would cover some of this area, it is considered more feasible to pump directly from the river. Not only are the construction cost and seepage losses of long canals avoided by pumping, but the water supply available is increased by the excess water of the lower east-side tributaries and waste water from canal systems above. Even with the ultimately large uses of the streams in the San Joaquin Valley, waste and return water will always supply some flow in the lower river channels which will be available for use here. The even slope of the surface and tillable character of the soils makes the preparation of land for irrigation inexpensive. The soils are deep and while variable are generally of a sandy or clay-loam character. The non-irrigated lands are in large holdings. The only large present system is owned by Patterson Colony, which contains about 19,000 acres, of which 6,000 acres were irrigated in 1912. The project has been completed but a short time and the irrigated area is increasing rapidly. The water is pumped in four lifts, the equipment and canals being well planned and permanently constructed.

North of Patterson Colony, between the Southern Pacific Railroad and the river, lying at lifts of less than 40 feet above the river, are approximately 35,000 acres, of which probably 5,000 acres are subject to overflow. The remaining area above the railroad rises from 20 to 40 feet per mile away from the river and greater lifts will cover correspondingly greater areas. Some investigations have been made and the construction of further projects similar to that of the Patterson Colony may be undertaken. By storage, which may be feasible on a small scale, Crow and Orestimba creeks may be able to supply further small areas, but as a whole the development from them is likely to be unimportant. Small pump supplies may be found along the creeks as they enter the valley floor. Underground water, usually said to be of fair quantity, occurs in the lands nearer the river at low lifts. Ground water seems to have an elevation approximately the same as the water in San Joaquin River, the lifts increasing as the foothills are approached. The quantity which can be obtained in the higher areas has not thus far been sufficient for irrigation purposes. Ultimate development in this area will depend on the lifts which may become economical and upon the water supply which can be secured in San Joaquin River. The general agricultural advantages of soil, crops which can be raised, and available markets will in the end force the subdivision of this area into small holdings and full economic development of the water supply.

TRACY TO BAY POINT.

Lying above the overflow lands of the lower San Joaquin delta on the west side of the valley, there is a generally narrow strip of valley land extending from Tracy to Bay Point, which contains 66,000 acres, of which only a small area is now irrigated. Bay Point is taken as the end of the San Joaquin Valley. The local run-off from the small west-side creeks is similar to that from those farther to the south, being small, irregular, and requiring storage for any valuable use and the total area which they can supply being unimportant in proportion to the whole. All the favorable conditions for irrigation, such as good soil, even slope to surface, available market for products, etc., are present except the water supply. Underground water can be obtained only in the lower areas in the southern part, pumping supplies in some cases becoming brackish in the vicinity of Byron. Fresh water can be pumped from the various channels and sloughs of San Joaquin River as far down as the vicinty of Antioch. High canals from San Joaquin River, while topographically possible, would require too great a length to be really feasible. The elevation varies from 10 to 150 feet, over one half of the area probably lying at lifts of 60 feet or less above the river. The pumping of San Joaquin River water in the southern end of this area has been considered and eventually some development of this character is to be expected as the water supply is proven available. This area is quite largely cultivated at present in deciduous fruits, almonds, and grain, the returns from which would be materially increased by irrigation.

MADERA AREA.

This area covers the valley and plains land in Madera County between San Joaquin River and Chowchilla Creek, with 390,000 acres of valley lands and 112,600 acres of plains, of which 43,000 acres and 40 acres, respectively, of cropped land is reported irrigated. San Joaquin River, whose discharge is discussed under the lower west-side areas, is the principal tributary source of water supply. A considerable portion of the valley land in this area lies so that it can be covered by canals direct from the river; on the higher portions longer canals would be required owing to the depth of the river bed below its banks. Aliso and Blythe canals and Lone Willow and Brown sloughs covered 15,700 acres of cropped land in 1912 in this area. In addition they covered 45,000 acres of low pasture lands by flooding during high water, the area so flooded sometimes being as high as 100,000 acres. Chowchilla and Columbia canals are laterals from Lone Willow Slough. Gravelly Ford Canal is an additional canal that is being constructed for the irrigation of additional higher areas of these lower lands. The Madera Canal and Irrigation Company have about 40,000 acres under its system and irrigated 10,600 acres through it from Fresno River in 1912. Bliss and Sierra Vista canals, from Chowchilla Creek, irrigate 5,000 and 2,375 acres, respectively, and 9,621 acres were reported irrigated in

Madera County, mostly south and west of Madera, in 1912. The plains areas and non-irrigated valley land are largely dry-farmed to grain, the land being in large holdings. The soils of the area vary,[1] sandy and gravelly loam being the most frequent.

The only streams crossing the area for which discharge records are available are Fresno River and Chowchilla Creek, measurements indicating a mean annual run-off of 121,000 and 110,000 acre-feet, respectively.[2] Both annual and monthly discharges are subject to wide variations. The maximum discharge occurs from February to April, flow generally ceasing by June 1st. Any considerable use of these local torrential streams requires storage as only by this means can their irregular and uncertain flow be made dependable for use on crops requiring water later than May. The Madera Canal and Irrigation Company attempted to store the flood waters of Fresno River but was prevented by a court decison obtained by the lower riparian owners on the grounds that a riparian owner is entitled to have the normal flow of the river reach his lands.[3] This decision at present blocks any development by storage on these streams. On Chowchilla Creek, the proposed Buchanan reservoir site has an estimated capacity of 42,000 acre-feet. It is possible that it is feasible to store sufficient water on these streams to enable a large proportion of their flow to be advantageously used if the legal obstacles of the riparian doctrine can be overcome. The use of underground water has not, until recently, been as extensive in this section generally as in other parts of the valley, although, as already stated, a large acreage is now irrigated by pumping from wells south and west of Madera. According to studies by U. S. Geological Survey, practically everywhere within that part of Madera County west of the Southern Pacific except near the bluffs of San Joaquin River, underground water is available for pumping.[4] As the foothills are approached, depth to ground water increases and the lift necessary in their development increases correspondingly. Although much of this section will remain without an adequate surface water supply except through possible storage on the San Joaquin, it would seem that the use of ground waters will permit of the irrigation of several times the present area now served by pumping plants.

MERCED AREA.

This area includes the part of Merced County south of the Merced River, containing 361,000 acres of valley land and 112,000 acres of plains, of which a total of 41,895 acres are reported irrigated. In addition to this acreage of cropped-land arrigation, East Side Canal, in connection, with flooding from San Joaquin River, flooded 35,500 acres of grazing land, with 10,000 acres flooded from San Joaquin River below that canal and 2,000 acres flooded from Blythe Canal, all in 1912. Sometimes this total flooded area reaches about 60,000 acres.

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[1] U. S. Dept. Agr., Bureau of Soils, Soil Survey of Madera Area.

[2] 1878-84, California Engineering Dept., Physical Data and Statistics, Wm. Ham. Hall, 1886.

[3] U. S. Dept. Agr., Office Expt. Stas. Bul. 239.

[4] U. S. Geol. Survey Water Supply Paper No. 222, p. 44.

Merced River is the only important stream crossing this area, although the San Joaquin forms the western boundary. Discharge records covering sixteen years are available for the Merced,[1] the mean annual flow having been 1,700 cubic feet per second, equivalent to 1,230,000 acre-feet per year. April to June are the months of highest discharge, the mean flow in May, the maximum month, having been 4,600 cubic feet per second. September is usually the minimum month of minimum discharge, the mean discharge for that month being 185 cubic feet per second. The total run-off in the year of maximum discharge of record has been one and three fourths times that in the mean year, and the run-off in the year of minimum discharge 0.4 that of the mean annual discharge.

Merced River, while diverted to a small extent to irrigate the narrow strip of bottom land between Merced Falls and Livingston, is used mainly on lands under the Crocker–Huffman Canal in the vicinity of Merced. There are 220,000 acres reported under the Crocker–Huffman Canal, of which 25,000 acres were irrigated in 1912. During this same season 4,700 acres were irrigated from pumping plants, and about 5,000 acres of pasture at the lower end of the Crocker-Huffman canal are flooded with surplus water from the canal. Water rights have been sold under this canal to cover something over 50,000 acres, this being the area classed as irrigated on the accompanying map. The principal irrigated sections at present are in the vicinity of Merced, Livingston, and Atwater. Water rights are sold for $10 per acre on an agreement to furnish one cubic foot per second for each 160 acres, but there has been little regulation of the quantity of water used and over-use in some cases is causing difficulties from the rising ground water. Except in the colonies, the holdings are generally large. A great variety of crops are grown, including forage, fruit, and truck. The various types of loams predominate in the soils, hardpan occurring at depths of from 3 to 10 feet in many parts.

Local streams besides Merced River for which discharge records are available are Mariposa and Bear creeks, the estimated total annual run-off being 33,000 and 47,000 acre-feet, respectively.[2] Like other creeks which drain small areas of the lower Sierra foothills, their flow is torrential and subject to great variations both annually and monthly. Maximum flow occurs from February to April, the streams generally ceasing to flow by June 1st. The flooding of wild grass pasturage near the San Joaquin is the only present use made of these creeks.

The only canal diversion from the San Joaquin River in this area is that of the Stevinson Colony, which includes about 12,000 acres, of which 11,500 acres of cropped lands were irrigated in 1912. In addition this canal distributed flood water for flood irrigation of about

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[1] 1878–84, California Engineering Dept., Physical Data and Statistics, Wm. Ham. Hall, 1886; 1901–1910, U. S. Geol. Survey Water Supply Paper No. 299.

[2] 1878–84, California Engineering Dept., Physical Data and Statistics, Wm. Ham. Hall, 1886.

36,500 acres of grazing land. Newman on the west side is the nearest railroad station. The soil is generally sandy loam and is adapted to a variety of products.

Extensive ground water supplies occur in the lower parts of this area, artesian flow being obtained west of the Southern Pacific main line, the lift generally varying from 15 to 30 feet on the remainder. As far as indicated by present scattered developments, the quantity of water gives promise of being sufficient to ultimately supply a considerable area.

Some storage sites have been surveyed on the upper portions of Merced River and others probably exist. With the use of such storage as can be secured, and by adapting the use to the seasonal variations of stream flow, it should ultimately be possible to irrigate at least the full area under the present systems and possibly more from gravity supplies. An area lying north of Merced River and above Turlock Irrigation District might be irrigated from the Merced.

MODESTO-TURLOCK AREA.

This division includes the valley and plains for which the Tuolumne River is the most natural source of supply. It extends from the Merced River on the south to the Stanislaus River on the north, excluding only a part of the plains area north of Dry Creek now largely included in Oakdale Irrigation District. The total area is 450,000 acres, of which 315,000 acres are classed as valley land and 135,000 acres as plains. Of the valley land 22,500 acres consist of low lands along the San Joaquin River and outside of the irrigation districts which are subject to more or less overflow, and about 14,000 acres along the Tuolumne and Stanislaus rivers. The area irrigated in 1912 was 135,760 acres, of which 38,250 acres were in Modesto District and 96,900 acres in Turlock District.

Tuolumne River, which is now used by Modesto and Turlock districts, has the largest flow of any tributary of the San Joaquin. Discharge records covering twenty-one years are available, the mean annual flow having been 2,870 cubic feet per second, equivalent to 2,080,000 acre-feet per year.[1] May and June are the months of greatest discharge, the mean flow then being about 7,600 cubic feet per second. This decreases until in September the mean flow is but 220 cubic feet per second. The run-off of the maximum year of record has been somewhat less than twice that of the mean year and that of the minimum year about one half of the mean. Underground water has been but little developed in this section, as the present gravity systems are already constructed for much larger areas than are irrigated. Some artesian flow is found in the lower portions, but it is not used for irrigation. Pumping supplies could be developed over practically all parts of the valley lands, although as the foothills are approached the lifts become greater and the total quantity which may ultimately be developed more uncertain.

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[1] 1878–84. California Engineering Dept., Physical Data and Statistics, Wm. Ham. Hall, 1886; 1895–1910, U. S. Geol. Survey Water Supply Paper No. 299.

Modesto and Turlock Irrigation districts were organized in 1887, the former covering 81,143 acres north of the Tuolumne and the Turlock district covering 176,210 acres on the south side. Although separate in organization, they have a common diversion dam near La Grange. Their progress met with similar difficulties of a legal and financial nature and it was not until 1901 that the Turlock system began delivering water, the Modesto District following the year 1904. Alfalfa is the crop of largest acreage, over two thirds of the total irrigated area being in this crop. Deciduous orchards, grapes, and garden products are also grown. The soils are generally of a sandy character,[1] those south of the river being more sandy than those on the north.

To increase the water supply in the late irrigation season, a foothill reservoir having a capacity of 30,000 acre-feet has been built by Modesto District, and the construction of two reservoirs holding 50,000 and 60,000 acre-feet, respectively, is contemplated by Turlock District. Other available sites are known in the upper drainage basin, the general opportunities for storage on the Tuolumne being better than on the other Sierra streams. Drainage has been found to be necessary in some portions of the districts, the ground water having risen to damaging heights since irrigation was started. Some drainage work has been done. Above the districts there are about 44,000 acres north of the Tuolumne and about 135,000 acres south of it that are properly classed as plains. Much of these lands can be irrigated from the Tuolumne if the water of the river is not taken to San Francisco for municipal use. The rights sought to be acquired by San Francisco cover water on the upper drainage area, including storage on Cherry and Eleanor creeks and at Hetch Hetchy. With the dams planned the proposed storage will have a total estimated capacity of approximately 500,000 acre-feet and furnish a supply of 400,000,000 gallons per day, equivalent to 450,000 acre-feet per day.[2] Other reservoir sites of various capacities have been surveyed. The total annual run-off in 1897–98, the minimum year of record, was 977,000 acre-feet. This is less than the estimated requirements of the two districts and of the city of San Francisco, but as the plans of San Francisco include sufficient storage to carry over some supply for low years, both the districts and the city should be able to secure the water needed, particularly as but one year of the twenty-four during which records have been kept gave less than the total estimated as being needed. With the development of additional storage, both in the mountains and in the foothills, much of the fine plains area above the districts should ultimately be susceptible of irrigation, even if a municipal supply is taken from the Tuolumne to San Francisco. In only five years of the twenty-one years of record has the run-off of the river fallen below 1,600,000 acre-feet, and in ten years it was over 2,100,000 acre-feet, the maximum recorded discharge being 3,750,000 acre-feet. By drawing upon the underground water to supplement the gravity supply, the irrigation of a very large portion of the Modesto-Turlock area will be feasible if the Bay cities do not withdraw the large supply they are seeking.

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[1] U. S. Dept. Agr., Bureau of Soils, Soil Survey of the Modesto-Turlock Area.

[2] Various reports submitted by City of San Francisco in the hearings on application for right of way in the Yosemite National Park for Hetch Hetchy reservoir site.

SOUTH SAN JOAQUIN-OAKDALE AREA.

This area covers the lands most feasibly irrigated from the Stanislaus River. This area extends from the Modesto-Turlock area north to the Mount Diablo base line and includes the South San Joaquin and Oakdale Irrigation districts which are now constructing new irrigation systems which will reclaim the greater part of their areas. The area included covers 129,000 acres of valley and 110,000 acres of plains, a considerable portion of the latter being an even second bench that is very similar in character to the valley land.

But little use for irrigation has thus far been made of the Stanislaus, 3,550 acres being irrigated by gravity supply from Stanislaus River and about 450 acres by pumping plants in 1912. Discharge records for the river covering 18 years[1] show a mean flow at Knights Ferry of 1,930 cubic feet per second, equal to 1,400,000 acre-feet per year. April to June are the months of greatest flow, May, the maximum month, averaging 5,000 cubic feet per second. September, with a mean flow of 180 cubic feet per second, is the minimum month. The total run-off in the maximum years of record has been twice that of the mean, the minimum year 0.3 that of the mean.

The owners of the land in the South San Joaquin and Oakdale districts organized in 1909 and after some difficulties in marketing their bonds have construction well under way. Both districts plan to have an entirely new irrigation system commencing with the season 1913. South San Joaquin District covers the land lying north of the Stanislaus and in the lower valley, while Oakdale District lies on both sides of the river above South San Joaquin and Modesto districts. The old Tulloch system, which irrigated land within the present boundaries of these districts, was purchased with its water rights by the districts in 1910. A storage reservoir to contain 75,000 acre-feet is included in the plans of South San Joaquin District. The upper Stanislaus is used to develop a considerable amount of power, some storage for which is being provided. The irrigation of areas lying north of that at present included in the district is probably physically feasible if a water supply can be provided. The joint canal of the two districts is to have a capacity of 1,700 cubic feet per second, which will require more than the full flow of the stream after June in normal years. The extent to which other areas can be supplied during the later irrigation seasons depends on the storage that can be provided. No large reservoir sites are known and the total amount which it will be practicable to store will probably be less than on the other streams, although it should be possible to supply more than the present 140,000 acres included in the two districts. Ground waters of excellent quantity, with lifts varying from 15 to 30 feet, underlie the valley lands of the area and can be used to supplement irrigation from gravity systems. Along the lower portions near San Joaquin River ground water stands sufficiently near the surface to make irrigation not necessary, and the plans of South San Joaquin District include drainage for these areas.

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[1] 1878–84, California Engineering Dept., Physical Data and Statistics, Wm. Ham. Hall. 1886; 1895–1900 and 1903–1910, U. S. Geol. Survey Water Supply Paper No. 299.

STOCKTON AREA.

This area includes the valley and plains land in San Joaquin County exclusive of that in the South San Joaquin-Oakdale area and the delta lands and contains 256,000 acres of valley and 73,000 acres of plains, of which 13,320 acres of the valley lands are reported irrigated. Calaveras and Mokelumne rivers are the principal available sources of surface water supply, although now but little used for irrigation. Much of the lower half of the valley lands is quite intensively cultivated in orchards and vineyards. The benefits to be derived from irrigation have been the subject of much debate and as excellent returns have been secured without irrigation, the construction of large systems has been retarded. Irrigation is largely in small units of 5 and 10 acres which were first served by windmill and later by small engines. The soils are generally clay loams and clay adobe, hardpan underlying some portions at sufficiently small depths to influence crop growth.[1]

Calaveras River is a stream of irregular flow. Measurements made at Bellota from 1878–84[2] gave an estimated mean annual discharge of 520 cubic feet per second, equivalent to 377,000 acre-feet per year. Some records for 1907 to 1910, at Jenny Lind, are also available.[3] While the total annual run-off is perhaps not more variable than that of the other streams of the valley, the monthly and seasonal flow is much more irregular, separate months varying many hundred per cent in different years. April is usually the month of greatest flow, the discharge decreasing until the stream becomes entirely dry in July or August. The sudden floods on the Calaveras have been the cause of much damage to the city of Stockton, which is situated between two of the lower branches or sloughs. Protective measures are now being taken and storage construction in the foothills for flood protection is also contemplated. Any extensive use of the Calaveras River for irrigation will require storage. There is a site with an estimated capacity of 80,000 acre-feet which it is planned could be operated for flood control and also supply, when combined with the late natural flow, 50,000 acre-feet for irrigation. Such a system if feasible should be able to irrigate about 20,000 acres. Mokelumne River is a stream of comparatively large flow, yet the low discharge in the later irrigation season has as yet limited its use to the irrigation of about 2,200 acres. With storage a much greater use of this stream can be made. Discharge records covering 12 years are available.[1] These give an estimated mean annual discharge of 1,380 cubic feet per second, equivalent to 1,000,000 acre-feet per year. April to June are the months of highest flow, the mean discharge for May, the maximum month, being 3,640 cubic feet per second. September is the minimum month, the mean discharge having been 110 cubic feet per second. The maximum year of record has been one and two thirds the mean and the minimum slightly less than one half the mean.

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[1] U. S. Dept. Agr., Bureau of Soils. Soil Survey of Stockton Area.

[2] California Engineering Dept., Physical Data and Statistics. Wm. Ham. Hall. 1886.

[3] U. S. Geol. Survey Water Supply Paper No. 299.

But one system, that of the Stockton and Mokelumne Canal Company, diverts water from Mokelumne River. This canal covers about 32,000 acres lying east of Stockton and Lodi, of which but 2,200 acres are receiving water at present. All the irrigated land lies less than 40 feet above tidewater, the underground water being within range of root penetration on the lowlands. The history of this canal system consists of a series of financial difficulties and changes in control, although the present owners have improved and developed it. Many pumping plants are also used in this section.

There are large areas of valley land lying east of the Stockton and Mokelumne Canal which are susceptible of irrigation by gravity from Mokelumne River. Many pumping plants are operating in this area and the number is being rapidly extended. Any intended use of the Mokelumne will require storage. Reservoir sites are at present known which are estimated to have a capacity of 180,000 acre-feet.[2] The benefits of irrigation are becoming better appreciated and further use of the water of this stream is probable. At present pumping from underground supplies is the largest source of water supply, the holdings being generally small intensively cultivated orchards or vineyards. While the northern end of the general artesian belt underlies this area it is but little used for irrigation, the quality being poorer and the quantity obtained less than in the areas further south. Ground water in good quantities is obtainable generally at lifts of from 15 to 30 feet in the valley lands. The area reported irrigated from pumps is 11,120 acres, the number of plants being about 1,500. Many of these plants are owned by foreigners, largely Italians, and while the new installations are being made in small units, in the aggregate the total increase is materially influencing agriculture in this section. The increase from 8,642 acres in 1909 to 11,120 in 1912 for areas irrigated by pumping is at the rate of 10 per cent per year. With underground water available in such large quantities and small lifts a continuation in the present rate of increase in use is to be expected. Eventually it is also probable that the flow of Calaveras and Mokelumne rivers will be utilized, more probably on the higher valley and plains lands where ground water is not so accessible.

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[1] 1878-84. California Engineering Dept., Physical Data and Statistics, Wm. Ham. Hall, 1886; 1905-10, U. S. Geol. Survey Water Supply Paper No. 299.

[2] Reports submitted by San Francisco in hearings for Hetch Hetchy permit, August, 1912.

SAN JOAQUIN DELTA AREAS.

The lower course of San Joaquin River is through an area of island and overflow land whose physical and agricultural characteristics are materially different from the general valley areas. This area includes the swamp land segregation from near Tracy and Lathrop to the north line of San Joaquin County and contains approximately 315,000 acres, of which 177,600 acres are considered irrigated by the standard adopted. San Joaquin River divides into 3 channels, Old River, the most westerly, Middle River, and the present San Joaquin, which passes near Stockton. The area between these channels, which unite near the mouth of the Mokelumne River, comprises about 120,000 acres, which is divided by the various sloughs and drainage canals into islands varying from 1,000 to 12,000 acres in size of which 89,000 acres are irrigated. Most of these islands have been reclaimed by the construction of levees to prevent overflow, the work being largely done by organized reclamation districts, and the reclamation of others is now in progress. The remaining unirrigated area consists largely of Bouldin, Madeville, and Bacon islands and various sloughs, lakes, and water channels. Efficient water transportation is furnished by these numerous channels.

The soils are composed of a mixture of silt and more or less decayed vegetable matter and are locally known as peat soils.[1] These are usually saturated at depths of 2 or 3 feet or less. Pumping plants are maintained both to pump water from the sloughs onto the land for irrigation and also for the reverse process of drainage. The usual method of irrigation is by the slow passage of water through ditches about 1 foot wide and 2 feet deep spaced 60 to 80 feet apart, these saturating the intermediate ground. Considerable alkali is present but its harmful rise is prevented by the low capillarity of the loose vegetable soil. Potatoes, beans, asparagus, onions, and celery are the most important crops, barley being also grown largely for rotation with potatoes. But little alfalfa is raised as the depth to water is not generally sufficient for deep root growth. The peculiar characteristics of these soils are quite fully utilized in the production of the crops for which they are best adapted. They are more affected by an over supply of water than by a scarcity and no development on the tributary rivers will ever be so complete but that waste and return flow will be sufficient for these lower areas.

Very similar to the islands between the channels of San Joaquin River are those between the main Mokelumne and the slough known as South Fork of the Mokelumne. About 20,000 acres are included in the three main islands, of which 13,000 acres are irrigated.

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[1] U. S. Dept. Agr., Bureau of Soils, Soil Survey of Stockton Area.

There is also a large area lying above the main sloughs that is subject to overflow and merges from conditions similar to those in the islands to those of the non-overflowed valley land. There are about 75,000 acres of this land lying west of Old River in Contra Costa County and 100,000 acres lying east of the main channel of the San Joaquin and the South Fork of Mokelumne River. These areas are largely protected by levees and are cultivated by methods similar to those used on the islands, and no shortage of water is felt. The area at present irrigated is 40,600 acres in the eastern portions and 35,000 acres in the western. The reclamation of further areas is to be expected here.

SUMMARY.

The summary of the various separate areas gives a total of 6,530,000 acres of valley and 1,046,000 acres of plains of which 1,705,745 and 23,230 acres are reported as now irrigated. The total discharge of the measured streams, which includes all of importance, has been 11,516,000 acre-feet per year in years of mean run-off and 4,955,000 acre-feet in the year showing the minimum discharge of record. The quantity which may eventually be secured from ground water may total 5,000 cubic feet per second.

Any statement of the present area irrigated or estimate of the ultimate area which can be irrigated in San Joaquin Valley must of necessity depend somewhat upon the standards of classification which are adopted. The present practice varies from intensive cultivation and irrigation from concrete pipe and stands in the orange groves, as about Porterville, to the crude, unrestrained overflowing of low land pastures. Any understanding of the possibilities of future development in irrigation in this valley requires a broad appreciation of the variable factors which may make each of these extremes the most economic use under certain conditions, although the circumstances that make the lower grade methods the more economic ones at present can be largely remedied in the future.

The area given as at present irrigated is based on careful reconnaissances covering the whole valley, checked by the reports of canal companies and the census of irrigation, and should be substantially correct. Land which generally receives water artificially for the benefit of any crops that may be grown, including pasturage, is classed as irrigated even though in occasional years of low stream flow no water may be applied. Any discussion of the areas which may ultimately be irrigated involves many variables and depends quite largely on the personal point of view. Developments which now excite no unusual comment would have been impracticable a generation ago and prophesies involving conditions a generation in the future may be similarly in error. In looking ahead, however, the present has one advantage over the past in that tendencies have now been established whose continuance is reasonably certain and from which the possibilities can at least be approximated. Among these are the increasing value of land and the necessity for its utilization in such a way as to produce returns in proportion to its value; the growing appreciation of the advantages and needs of irrigation if these higher returns are to be obtained; and the approach of the amount of water used to the easily available supplies, this approach stimulating both the more careful use of present direct flow and underground waters, and the development of those as yet unused. All these tendencies, which even causual study shows must continue at increasing rates, make it evident that economic conditions will eventually force a full utilization of available irrigation possibilities.

It is on this basis that the estimates of the area which may ultimately be irrigated have been made. Not only will the acreage be increased but the character of crops grown will be improved, although it is possible that wild-grass flooding will always be the most economical use of part of the most variable part of the stream flow.

While the surface flow of the streams and the underground waters are rather closely related, the developments which will be made from each of these sources can best be discussed separately, because of the differences in the amount of available data relative to their quantity and in the factors which will influence their use.

The low-water flow of all San Joaquin Valley streams can be considered either as fully used at present or as being appropriated by projects under active construction, except the waste and return water in the lower San Joaquin River itself. This applies to the discharge in the later months of the irrigation season. As the flood stages of all streams draining the higher Sierra occur generally in May and June, much of the discharge during this period is undiverted. There are two methods of more fully making crop uses and the seasonal variation of streamflow more fully coincide; viz: by storage of flood discharge for use as desired and by adapting irrigation to the available water supply, which is really ground storage. Only the second of these methods has been used to any extent in San Joaquin Valley. While but few data regarding feasible reservoir sites are available for this division as a whole, the general conditions and such detailed surveys as are known make it reasonable to conclude that much reservoir capacity can be secured at feasible costs. That this has not been done has been due largely to legal conditions which make uncertain the rights of those storing water as against the rights of riparian owners, and also to the general climatic conditions which permit irrigation during most of the year. It has been cheaper to use water when available, expecting the soils to retain a portion of the amount applied for the use of the crops in the months of low flow, than to undertake the uncertainties of reservoir storage. With the value of water increasing, the stage is being reached where it will be more economical to store excess waters for application when most needed than to use the larger quantities necessary in ground-storage practice. While the use of water whenever available is much to be preferred to no use at all, the best returns from the valuable fruit and forage crops can not be obtained unless late-season irrigation can be secured. A general examination of the annual and seasonal variations of stream-flow in this division shows that even with the use of as much storage as can be considered feasible, not over two thirds of the run-off can be made available for use on the most desirable seasonal distribution. That so many of the streams have already passed this figure is evidence of the advantages of the present practice of adapting the amount used to the available supply. It is for this reason that the construction of storage will add to the value of the irrigated crops more than to the total acreage.

The table below shows the comparative use which is now being made of the different streams. The use of Kings River is the most complete, due to several factors, among which are the high ground water plane, the irrigation of a large area of vineyards which require little water, and the use of practically all flood and waste water on forage crops in the lower areas.

Table showing discharge of and areas irrigated by principal streams in San Joaquin Valley.

River.	Mean annual run-off. Acre-feet.	Run-off in minimum year of record. Acre-feet.	Area irrigated by stream at present. Acres.	Mean annual run-off in acre-feet divided by area irrigated.	Minimum annual run-off in acre-feet divided by area irrigated.
South of San Joaquin River:					
Kern	770,000	288.000	176.220	4.4	1.6
Tule	148,000	70,000	47,775	3.1	1.5
Kaweah	533,000	252,000	109,700	4.9	2.3
Kings	1,920,000	884,000	628,780	3.05	1.4
Totals	3,371,000	1,494,000	962,475	3.5	1.6
North from San Joaquin River:					
San Joaquin	2,060,000	924,000	[1]344,100	6.0	2.7
Merced	1,228,000	518,000	[2]67,800	18.1	7.6
Tuolumne	2,080,000	977,000	135,320	15.4	7.2
Stanislaus	1,400,000	389,000	4,800	--------	--------
Calaveras	377,000	174,000	------------	--------	--------
Mokelumne	1,000,000	479,000	2,200	--------	--------
Totals	8,145,000	3,461,000	554,220	--------	--------
Grand totals	11,516,000	4,955,000	1,516,695	--------	--------

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[1] Includes 177,600 acres of delta lands partially supplied by run-off of tributary streams, but does not include 122,000 acres of pasture artificially flooded from San Joaquin River in 1912 or 68,000 acres of pasture naturally flooded in 1912 from the same stream. In normal years the pasture artificially flooded from San Joaquin River is about 14,000 acres more and the naturally flooded pasture 5,000 acres more.

[2] Includes all lands holding water rights under Crocker-Huffman canal; only 19,500 acres actually irrigated under that canal in 1912.

While the same average of 1 acre irrigated for each 3 acre-feet of mean annual run-off may be attained on the Kern, Tule, and Kaweah rivers as on the Kings, it is hardly to be expected on those farther to the north where, so far as is known, the same opportunities for utilizing flood-flow do not exist. This average may be attained on the main San Joaquin, exclusive of its tributaries, if the delta lands are included, by the use of pumping to the northern west-side valley areas and further use in the upper portion through storage. At present the streams from Kings River south average 1 acre irrigated for each 3.5 acre-feet of mean annual run-off. While the utilization appears to have approached the economic limit on these streams, storage and prevention of seepage losses in canals and stream beds should permit some increase in area. By including the minor streams not in the table, the total discharge of the streams from Kings River south in mean years is 3,820,000 acre-feet which at a duty of 1 acre for each 3 acre-feet would supply 1,270,000 acres by gravity. On Kings River, the area irrigated may be increased through storage and improvements in canals, so that the streams in this portion of the valley may be estimated as capable of supplying a total of 1,350,000 acres as a probable maximum. This increase should be accompanied by a large increase in crop returns due to more intensive cultivation, as it is only by such intensive cultivation that much of this increase will be economically practicable. As this is only about one third of the available agricultural land, no detail study as to whether land and water can be brought together is needed. The streams are distributed so that ample land is available for each source and it is only on the west-side lands that no part of large continuous areas will be irrigated.

While the division between the streams from Kings River south and the San Joaquin and its direct tributaries is a natural one, the individual differences between the northern streams and their agricultural areas make a more detailed consideration of the possibilities advantageous. As shown by the preceding table, the use of these streams is much less complete than the use of the southern ones. This has been due most largely to the greater possibility of obtaining fair returns by the dry-farming of grain. With the greater returns of irrigation now fully appreciated, full utilization of the opportunities is to be expected.

The San Joaquin is the river of next to largest discharge and of largest present use in the northern part of the valley. As shown by the average of 1 acre irrigated for each 6 acre-feet of mean annual run-off, this stream should be capable of supplying a much larger area. Such an increase is to be expected eventually, for while much of the tributary land is now perhaps best adapted to grain and forage crops irrigated by wild flooding, yet there is sufficient land capable of intensive cultivation on the lower west side and in Madera County to fully utilize its discharge. There is also a greater opportunity to make use of any flood or waste waters on this river due to its greater length. Besides the run-off of its own mountain drainage, it receives the excess of the east-side streams which are available for use in the lower delta lands. Considering these delta lands as part of the area irrigated from the San Joaquin, a general duty of 1 acre for each 3 acre-feet of mean run-off should be attained, or a total of nearly 700,000 acres. The present conditions of ownership of riparian lands and control of water rights will probably postpone any such complete utilization of this stream, although eventually the value of its use should force the full economic development.

Tuolumne River is slightly larger than the San Joaquin. It is the only stream in the valley whose discharge is capable, when fully utilized, of irrigating its adjacent valley and plains land. The mean annual run-off can supply the 473,000 acres of agricultural land reported available at the rate of 4.4 acre-feet per acre. As the opportunities for storage are considered better than on any other Sierra stream, the Tuolumne can be considered as capable of irrigating this full area and also supplying some municipal water supply for the Bay cities, although the ultimate diversion of 400,000,000 gallons per day for use by the cities of San Francisco Bay, as now estimated to be required, will leave a mean annual run-off of 3.5 acre-feet for each of the 473,000 acres of agricultural land or only 1.1 acre-feet in minimum years.

Of the other streams, the Stanislaus and Merced rivers are the most important. Although present use is not large from these, constructed systems can serve much additional area. It is hardly to be expected that as large an area proportionately will be irrigated as on the southern rivers, as rainfall conditions are more favorable. Stanislaus River should irrigate the 140,000 acres of the two present districts and eventually additional area to the north. The irrigation of 300,000 acres from this stream would be at the rate of 1 acre for each 4.5 acre-feet of mean annual run-off and should be feasible when the demand for its use arises. A somewhat larger use of Merced River is probable as irrigation is more necessary in this portion of the valley, and 300,000 acres may ultimately be irrigated.

The only other stream of large run-off is the Mokelumne, which as yet has been little used. While agriculture without irrigation or irrigation by pumping is already well established in its tributary areas, so that its use will be slower than on the other streams, it can be considered as capable of ultimately irrigating probably 100,000 acres. The other various streams have a total mean annual run-off of 668,000 acre-feet. Calaveras River furnishes over one half of this and with storage may supply 40,000 acres. The remaining run-off is derived from the Fresno, Chowchilla, Mariposa, and Bear creeks in Madera and Merced counties and with storage may supply 60,000 acres.

Summarizing the various streams from the San Joaquin River north, the total area for which it may be estimated that a surface water supply may be obtained is 1,900,000 acres.

The above discussion covers the sources of surface water supply of San Joaquin Valley. The records of stream-flow furnish fairly complete data as to the available water from these sources, leaving only the extent of its use to be estimated. With the underground water both the quantity and its probable use must be estimated. A general description of the ground waters based on field work in 1905 has been published.[1] It is estimated in this report that the ultimate amount of ground water developed may be ten times that then developed in southern California, or 5,000 cubic feet per second.[2] At that time about 300 cubic feet per second was being developed in the San Joaquin Valley. This has been more than doubled since. If 5,000 cubic feet per second is obtained for 6 months of the year it will equal a total of 1,810,000 acre-feet or approximately 15 per cent of the total mean annual discharge of the streams at the edge of the valley. Considering the generally open structure of the subsoils the seepage of this amount or more can be considered as reasonable. Increase in gravity irrigation should increase the quantity reaching ground supplies. Groundwater in sufficient quantity for irrigation can be obtained in all parts of the valley proper, except in the west-side areas. In the lower valley floor artesian flow can be secured, although this is not extensively used for irrigation. While the quantities available decrease and the lifts required increase from the valley trough to the east-side foothills, the value of the products which can be grown increases, so that the highest development may be found in the regions of smallest groundwater supply. As pumping for irrigation requires both an initial cost and an operation expense that are plainly evident to irrigators, the pumped water is generally used more economically than that from gravity canals. As a large portion of the water at present pumped is used to supplement the water received from canals, it is not reasonable to expect the area irrigated from ground water will be entirely additional to that irrigated from canals. While any estimate of the total possibilities of the ground supplies must be liable to much uncertainty, the area eventually irrigated wholly by this means will certainly be several times that at present supplied and may reach a total of 600,000 acres. While use of ground water will be rather general throughout the lower valley floor and east-side plains, the largest use will be where gravity supplies are the least accessible, as in San Joaquin County, or where supplemental pump supplies are the most profitable, as in the Fresno district.

Any such extensive development as has been outlined both from stream and groundwaters can only occur by gradual increase through a long period of time, even with favorable legal and economic conditions. A large population is a first requisite for such intensive cultivation as will be required and settlers can not be obtained for such large areas in a short period. Removing all possible legal hindrances to legitimate development and uncertainties as to water-right conditions will hasten the time when the possibilities of this great valley may be realized.

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[1] U. S. Geol. Survey, Water Supply Paper No. 222.

[2] It is understood that a new report is being issued by the Geological Survey on the underground waters of San Joaquin Valley and the preliminary estimates given in Water Supply Paper No. 222 are likely to be changed to conform to results of their later studies.

Summarized briefly, the situation may be stated as follows: In San Joaquin Valley from Kings River south are 4,662,000 acres of valley and plains land of which 1,136,910 acres are now irrigated and 1,650,000 acres for which it is estimated a water supply can be obtained. Of the agricultural area which must remain without a water supply, roughly 1,400,000 acres can be considered as being west-side and south-side lands and the remaining 1,750,000 acres as divided among the east-side areas. From San Joaquin River north are 2,914,000 acres of valley and plains lands with 592,065 acres irrigated and 2,200,000 acres for which it is estimated a water supply can be obtained. The areas which will remain unirrigated are scattered. Taken as a whole the valley and plains lands total 7,576,000 acres, with 1,728,975 acres irrigated and 3,850,000 acres irrigable. Present development is approximately 45 per cent of the estimated ultimate, and the estimated ultimate approximately 50 per cent of the whole area.

SIERRA FOOTHILLS ABOVE SAN JOAQUIN VALLEY.

The Sierra foothills in central California comprise a belt of land on the western slope of the Sierra Nevada bordering the San Joaquin valley and plains. The foothill territory covered in this report extends southerly from Mokelumne River to the Kern. Between the Kern and Tehachapi Mountains, at the southern end of San Joaquin Valley, the foothills rise abruptly from the valley floor and are followed by ranges gradually increasing in height until the summit of the Sierra is reached. The cultivable areas are found largely along the foot of the slopes or in small valleys or coves back of the first range of hills, as in the Tulare County citrus belt. This area south of Kern River is comparatively small and has therefore been included in the San Joaquin Valley plains. In investigating the arable areas in the foothills an altitude of 2,500 to 3,000 feet was taken as the upper limit, since above this irrigation is little practiced. The agricultural areas included are largely broken and scattered and while in some cases owing to topographic features and shallow soil no irrigation may be practiced, it has not been practicable to eliminate minor areas. The upper portions of the foothills are generally covered with a coarse growth of underbrush, small oak, and a second growth of yellow pine. In the lower portions adjacent to the plains grain is principally grown without irrigation.

The Sierra foothills have been so closely identified with mining that until recently little attention was paid to agricultural pursuits. Early miners who set out small orchards demonstrated the success of fruit-growing, but generally only enough fruit was raised to supply the local demand. Stock raising will always be an important industry. The lack of transportation has been a serious handicap to agricultural development and there are still fertile sections whose products must be hauled long distances to railroads. In many places ditches are already provided, having been constructed at an enormous cost for mining operations. Irrigation and the generation of power give new ways for the continued use of these ditches.

The streams which have their source in the Sierra constitute the available supply for the foothills as well as for San Joaquin Valley. The available discharge records and possibilities of the various rivers are discussed with the more important areas in San Joaquin Valley. Generally there are larger areas of valley lands available for each source than can be supplied. While the water resources may generally be considered as equally available for foothills or valley lands, extensive areas under single projects are not to be expected in the foothills, because of the generally broken character of the topography. Underground waters are not usually available, although springs are used to a certain extent.

The following tabular summary gives the location of the arable land in the foothills in central California by counties according to their location between the principal river systems, with the acreage of agricultural and irrigated land:

Summary of agricultural land in Sierra foothills above San Joaquin Valley.

Area.	County or counties.	Foothill agricultural land. Acres.	Areas irrigated. Acres.
Between Mokelumne and Calaveras rivers	San Joaquin	37,500	0
Between Mokelumne and Calaveras rivers	Calaveras	54,500	560
Between Calaveras and Stanislaus rivers:			
Lower foothills	San Joaquin, Stanislaus and Calaveras	115,000	40
Salt Springs Valley	Calaveras	47,000	100
Vicinity of Andreas and Angels Camp	Calaveras	15,000	570
Between Stanislaus and Tuolumne rivers:			
Lower foothills	Stanislaus and Tuolumne	46,000	40
Vicinity of Sonora	Tuolumne	81,000	2,300
Between Tuolumne and Merced rivers:			
Lower foothills	Stanislaus, Merced, Tuolumne, and Mariposa	53,000	0
Vicinity of Coulterville	Tuolumne and Mariposa	22,000	230
Between Merced and San Joaquin rivers:			
Upper Bear Creek drainage area	Merced and Mariposa	67,000	0
Upper Mariposa Creek drainage area	Mariposa	62,000	0
Upper Chowchilla Creek drainage area	Mariposa	50,000	40
Upper Fresno River drainage area	Mariposa	27,000	200
Madera County areas	Madera	18,000	40
Upper Kern River valleys	Kern	35.000	6,500
Totals		730,000	10,620

AREA BETWEEN MOKELUMNE AND CALAVERAS RIVERS.

This area comprises a total of 92.000 acres of agricultural land, of which 560 acres are reported irrigated from Mokelumne River and tributaries. Irrigation is confined to vegetables and small orchards, water being obtained from old mining ditches. In the lower foothills grain is grown without irrigation and conditions are similar to those in the adjacent San Joaquin plains. The mean annual rainfall at Mokelumne Hill at an elevation of 1,500 feet is 32.5 inches. All kinds of deciduous fruits can be profitably grown with irrigation. It is probable, however, that stock raising will continue to be the principal industry in this area.

AREA BETWEEN CALAVERAS AND STANISLAUS RIVERS.

This area, comprising 177,000 acres, has been segregated into three principal divisions. The lower foothills, including 115,000 acres adjacent to the San Joaquin plains, are utilized largely for grazing and the growing of grain. Salt Springs Valley, lying between Gopher Ridge and the Bear Mountains, forms the second group of 47,000 acres. The remaining 15,000 acres are found in the upper foothills between San Andreas and Angels Camp. The agricultural areas here follow along the creek bottoms, the hills being too steep and rocky for farming. Mining still predominates in the upper foothills, agriculture having been developed only to the extent of supplying local markets. The irrigated area in 1912 amounted to 710 acres, consisting mostly of small orchards and vegetable gardens. The soil is generally of a red clay or gravelly loam and when of sufficient depth is well adapted to the growing of fruit. Numerous ditches are already built capable of supplying a large area when the demand for irrigation is created.

AREA BETWEEN STANISLAUS AND TUOLUMNE RIVERS.

Lying between Stanislaus and Tuolumne rivers it is estimated that there are 127,000 acres of agricultural land, of which 2,340 acres are irrigated mainly by diversions from the South Fork of Stanislaus River. Owing to the more important industries of mining and lumbering there has been no real impetus to agricultural development. Farming is limited to the growing of grain and hay. The early miners set out a number of small orchards for the purpose of supplying fruit for domestic use. Where the trees received sufficient care, fruit of good quality was successfully grown.

The success of the fruit industry must depend largely upon irrigation. The soils are the result of the weathering or decay of underlying rocks, and on the hilltops it may be only a few inches deep. The average annual precipitation at Sonora for twenty-three years is 35.79 inches, almost all of which falls during the winter months. Owing to the shallow soils, steep slopes, and consequent natural drainage, very little of the moisture is retained in the soil for the dry season.

The principal water supply for irrigation is supplied by the Sierra and San Francisco Power Company, which has succeeded to the rights and properties of the Tuolumne Water Company. Water is diverted from the South Fork of Stanislaus River and delivered to lands in the vicinity of Sonora, Columbia, Jamestown, Soulsbyville, and Tuolumne. The charge for water is 12½ cents per miner's inch per 24-hour run. It is locally estimated that 24,000 acres in this territory are so situated that irrigation could be easily accomplished, and by constructing present known storage it has been estimated that water can be furnished for about 19,000 acres. The remaining areas are best adapted to grain and grazing. Transportation is afforded by the Sierra Railway, which connects Tuolumne with Oakdale on the Southern Pacific.

AREA BETWEEN TUOLUMNE AND MERCED RIVERS.

This consists of 53,000 acres of low rolling hills and 22,000 acres of scattered areas in the vicinity of Coulterville. Two hundred and thirty acres are reported irrigated. Conditions are similar to those in the area north of the Tuolumne River. The lower foothills are devoted almost exclusively to the growing of grain and grazing, and it is probable that in the higher foothills the stock industry will continue to predominate. A few oranges and lemons have been grown successfully for many years at La Grange, indicating what may be accomplished in time in favored localities of the foothills.

AREA BETWEEN MERCED AND SAN JOAQUIN RIVERS.

Soils in this area are chiefly of red clay loam characteristic of the Sierra foothills. The topography in general consists of numerous irregular plateaus separated by the narrow valleys of Merced River and Bear, Mariposa, and Chowchilla creeks, which are the principal streams. Merced River has a large run-off, but does not flow through the larger areas of agricultural foothill land, so its full use is more profitable in the main San Joaquin Valley. The run-off of the smaller streams is torrential and uncertain. Irrigation is confined to a few small gardens and fruit farms which depend upon springs and wells for their water supply. About 280 acres were irrigated from these sources in 1912. The agricultural area included in this group comprises 206,000 acres.

The only railroad which traverses this section is the Yosemite Valley Railroad, which follows along Merced River and connects with the Southern Pacific and Santa Fé railroads at Merced. Owing to the lack of transportation facilities, diversified agriculture has been limited to the demands of the local markets and any extensive irrigation development will be retarded until railroads are provided. In some cases, such as Chowchilla Valley, where soil and climatic conditions are adapted to special crops such as apples, local development may be important. Irrigation development as a whole will likely be slow, since the greater part of the available water may be had only after expensive storage works are constructed. Large areas of fertile land in the valley below which must look for their water supply in the Mariposa watershed will naturally be the first to be benefited. South of the Mariposa areas are 18,000 acres of foothill land in Madera County included in this division. The rolling hills are broken in numerous places by outcroppings of rock and are chiefly valuable for growing grain and grazing. It is doubtful if irrigation will ever be practiced, although the possibility of growing citrus fruits in sheltered portions may lead to some local development.

UPPER KERN RIVER VALLEYS.

The valleys of upper Kern River, while not distinctly a part of the Sierra foothills, have been included in this division. The area comprises about 35,000 acres, the greater part of which lies along the South Fork of Kern River at a mean elevation of 2,500 to 3,000 feet. Six thousand five hundred acres are reported irrigated, consisting mostly of alfalfa, wild grasses, and a few orchards. Kernville, Isabella, and Onyx are the principal towns and are reached by stage connecting with the Southern Pacific Railroad at Caliente. Stock raising and mining will always predominate. No great increase in irrigation can be expected in this section owing to the valuable hydroelectric power rights which have become vested on upper Kern River and its tributaries.

SUMMARY.

An estimate of the area which may ultimately be irrigated in this division is more difficult to make than in others of central California. The valley areas available are generally larger than can be supplied from the streams on which development in the foothills must also depend. The lower foothills, which comprise over one half of the total area, while similar to the valley plains are generally more rough in character and will probably be the last to be benefited by irrigation. In the upper foothills the agricultural areas are more scattered, and being smaller in extent it is doubtful if costly storage works would be justified for their reclamation. With better transportation facilities and a more general interest in diversified agriculture, it is safe to predict that from 40,000 to 50,000 acres may eventually be irrigated in the Sierra foothills above San Joaquin Valley.

VALLEYS EAST OF THE SIERRA NEVADA.

This division includes the portion of central California lying east of the Sierra Nevada and in the Great Basin drainage. The altitude of the agricultural areas varies from 3,700 to 7,000 feet, the streams arising at elevations of from 8,000 to 14,000 feet. In the valleys the available records of rainfall show a mean annual precipitation varying from 3.06 inches at Keeler to 14.49 inches at Bodie. The general agricultural characteristics are quite similar to those of the plateaus and valleys in northern California, forage crops and some grain predominating. Of a total area of 8,700,000 acres in the three counties, 472,000 acres are classed as agricultural and so situated as to be irrigable if a sufficient water supply can be procured, of which 137,760 acres were reported irrigated in 1911.

While this section has long been settled and irrigation has long been practiced, its fullest development has been retarded by the lack of adequate transportation facilities. The recent construction of a railroad to Owens Valley from the south has greatly improved this feature. The crops raised have been largely those consumable by the stock industry and as is usual in such cases the methods of irrigation are more crude than with the more intensive agriculture.

The separate agricultural areas are not numerous, as shown by the following table:

Summary of agricultural and irrigated areas in the valleys east of the Sierra.

Area.	County or counties.	Agricultural land. Acres.	Area irrigated. Acres.
Alpine County	Alpine	3,500	3,350
Antelope Valley	Mono	22,100	16,700
Bridgeport Valley	Mono	24,200	19,100
Area southwest of Mono Lake	Mono	19,000	2,720
Area north of Mono Lake	Mono	63,000	1,360
Owens River areas:			
Adobe Meadows	Mono	27,000	0
Valley north of Bishop	Mono and Inyo	77,000	260
Long Valley	Mono	21,500	18,700
Round Valley	Inyo	8,700	5,630
Owens Valley, Bishop to Aberdeen	Inyo	100,000	47,400
Owens Valley, Aberdeen to Owens Lake	Inyo	98,000	21,900
Owens Valley, west and south of Owens Lake	Inyo	8,000	640
Totals		472,000	137,760

ALPINE COUNTY.

Irrigation in Alpine County is confined to the valleys of the west and east forks of Carson River, 2,950 acres being irrigated from the west fork and 400 acres from the east fork. The former area extends from Woodfords to the Nevada line; the latter lies in the vicinity of Markleeville. But 3,500 acres are reported as being susceptible of irrigation from reported ditches. Forage crops predominate and general conditions are similar to those in the other larger areas of this division.

ANTELOPE VALLEY.

Antelope Valley, in the northern part of this division, lies at an altitude of from 5,000 to 5,500 feet and extends into Nevada along West Walker River, by which it is watered. Forage crops are raised almost entirely, meadow hay predominating. The Rickey Land and Cattle Company own the main part of the valley land and also the irrigation canals. Records of the discharge of West Walker River at Coleville gave a total run-off of 156,000 acre-feet in 1905 and of 490,000 acre-feet in 1907, the drainage area being 306 square miles.[1] The statement of the total area of irrigable land in this valley in California is based on the investigations made by the United States Reclamation Service, which contemplated using Alkali Lake as a reservoir for the irrigation of lands in Smiths Valley, Nevada. The total area of agricultural land reported in Antelope Valley is 22,100 acres, of which 16,700 are irrigated more or less completely, the area at present unirrigated lying above the canals and being of a generally rougher character. A water supply can be considered available for the total area, as with economy in present methods the amount now used would be sufficient. However, the irrigation of the remaining area is not considered probable for some time at least. Over-irrigation has caused the swamping of a large area in the vicinity of Topaz, and more care in the application of water as well as drainage in some portions is needed.

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[1] U. S. Geol. Survey, Water Supply Paper No. 300.

BRIDGEPORT VALLEY.

Bridgeport Valley consists of 24,200 acres of agricultural land lying in the broad bottoms formed by Robinson, Buckeye, and Swager creeks and East Walker River, of which 19,100 acres are classed as irrigated, including about 1,200 acres in Huntoon Valley on upper Swager Creek, which is separate from the main area. The mean elevation is approximately 6,500 feet, meadow hay and pasture being the only crops raised. These are irrigated by the wasteful wild flooding methods prevalent in other similar areas where land holdings are large. The land classed as agricultural but not at present irrigated is in the upper portion of the valley along East Walker River and at the lower end above the irrigated land. A swamp area of about 4,000 acres caused by over-irrigation occurs in the valley and is excluded from the agricultural area. The water supply is more than required for all the agricultural land, its abundance having been the chief cause of its over-use. The irrigation of the remaining area, which is rougher and more rocky than the main valley, may be accomplished in time, although drainage of the swamps whose area is being increased, if economically practicable under present crop returns, is the most urgent need.

MONO LAKE AREAS.

Lying southwest of Mono Lake, in the vicinity of Rush and Leevining creeks, is an area of 19,000 acres, of which 2,720 acres are reported irrigated. Mono Lake, at an elevation of 6,400 feet, has an area of approximately 85 square miles, the evaporation from which is a measure of the run-off received. No evaporation measurements have been made on this lake, but at Owens Lake to the south and 3,000 feet lower in altitude it is approximately 70 inches, and at Lake Tahoe in the mountains to the north it is about 30 inches, so that the mean evaporation here may be estimated as 50 inches per year, equivalent to 225,000 acre-feet from an area of 85 square miles. Rush and Leevining creeks drain 150 square miles of the eastern slopes of Mount Lyell and the higher Sierra and are estimated to furnish one half of the run-off received by the lake. Many small lakes are formed along these creeks and by the use of some storage the water supply can be considered sufficient for the area reported. Its use is not probable, however, because of the climatic conditions, which largely limit agriculture to the growing of native hay, so that it is to be expected that this area will continue to be devoted at as present mainly to stock interests.

There is also an area lying north of Mono Lake containing 68,000 acres, 1,360 of which are irrigated. Mill and Wilson creeks are the principal streams and are used to supply the area at present irrigated. Mill Creek is one of the principal tributaries of Mono Lake, and with storage could be made to supply considerable additional area, general conditions being similar to those in the lands along Rush and Leevining creeks. The agricultural land lying in the eastern part of this area is backed by an arid drainage area of approximately 200 square miles, from which there is practically no surface run-off. The irrigation of this land can not be considered feasible, as because of climatic conditions the crop returns would not be sufficient to make any expensive systems financially successful.

OWENS RIVER AREAS.

The remaining areas of this division lie in the general Owens River drainage basin. Owens River receives the drainage from a length of about 100 miles along the east slope of the Sierra, its valley land comprising the largest agricultural area in this division. White, Inyo, and Coso mountains on the east yield but little run-off. Including Long and Round valleys, there is a total of 340,200 acres of agricultural land reported, of which 94,530 are irrigated. The mean elevation is 3,900 feet. The temperature at Independence ranges from 105 degrees to 3 degrees, the mean being 58 degrees, with a mean annual rainfall in the valley of approximately 5 inches. The 160-acre homestead is the typical holding and forage and grain are the principal crops, both alfalfa and native grasses being raised.

In 1903 the United States Reclamation Service carried on various investigations for the purpose of determining the feasibility of constructing further irrigation systems. Storage in Long Valley was contemplated. A reconnaissance of the lands in the main valley was made and it was estimated that there were 75,000 acres of first class and 50,000 of second class land requiring only water to be of value, 80,000 acres requiring drainage and washing, with 75,000 acres too rough for irrigation or waste land from other causes. The soils of the west side are derived from the Sierra and are granitic, those from the mountains on the east having a general limestone character. Over-irrigation has caused much of the bottom land to be affected with alkali. Drainage has been successfully tried on a few individual farms and more comprehensive systems should be feasible. The proposed project of the Reclamation Service was abandoned in favor of the Los Angeles aqueduct. The city of Los Angeles is building an aqueduct at an estimated cost of $24,500,000 to convey a mean flow of 430 cubic feet per second from the Owens River drainage a distance of 220 miles to provide for its future municipal needs. Large areas of land and five canals were purchased in Owens Valley in order to obtain their water rights. Storage in Long Valley is contemplated, other reservoirs along the aqueduct line also being included in the system. Diversion is made from Owens River, near Aberdeen, about 12 miles north of Independence, the capacity of the canal being 700 cubic feet per second at this point. This capacity is increased to 900 cubic feet per second as the various west-side creeks are collected and added to the canal. Haiwee reservoir south of Owens Lake will be used to equalize the seasonal flow, the capacity of the canal being 430 cubic feet per second below this reservoir.

Extensive hydrographic studies have been carried on in connection with this project, particularly in regard to the recovery of underground water. Much water seeps from stream beds and from irrigation ditches and irrigated fields which experiments have shown is now largely lost by evaporation from the lower valley lands, the depth to ground water fluctuating between 3 and 8 feet. By lowering this ground water below the effects of surface evaporation, it is estimated that a mean flow of 75 cubic feet per second can be developed. It is planned to use such waters as part of the Los Angeles supply, as the surface stream flow in some years falls below requirements. Artesian flow is secured in some deep wells bored near Independence. Underground water occurs in good quantities, with low lifts beneath the lower lands in much of the valley, and these sources may ultimately be used to some extent.

While the agricultural land is continuous throughout the main Owens Valley, it can be separated into sections for the purposes of discussion.

ADOBE MEADOWS.

The so-called Adobe Meadows comprise 27,000 acres of mountain upland used for spring range. Dexter Creek drains the low mountains to the west, but its channel does not extend across the meadows. There is no cultivation here, and irrigation is not probable, due to uncertain and insufficient water supply and other adverse conditions.

VALLEY NORTH OF BISHOP.

The valley extending along the railroad north from Bishop is supposed to have been the original course of Owens River.[1] There is no defined stream through much of this area and the only land irrigated is supplied from small creeks. There are 77,000 acres of this agricultural land north of present canals. While canals at higher levels might be built to cover some of the southern portion, it will not be feasible to irrigate the much larger part of the area.

LONG VALLEY.

Long Valley is the upper agricultural area reported on Owens River, including 21,500 acres, of which 18,700 acres are irrigated. All land along Hot and Convict creeks which is classed as agricultural is irrigated. Along the upper river there are about 2,800 acres of agricultural land which is above present irrigation. The land is held in a few large stock ranches and irrigation consists mainly of the flooding of meadows for hay and pasture. The altitude is 6,500 to 7,000 feet and the growing season shorter than in the lower valley. The irrigation of all agricultural land reported is feasible, but unlikely under present general conditions. The lower end of the valley will be flooded by the proposed reservoir of the Los Angeles aqueduct.

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[1] U. S. Geol. Survey, Water Supply and Irrig. Paper No. 181.

ROUND VALLEY.

Round Valley, comprising 8,700 acres, of which 5,630 acres are irrigated, lies along Pine, Rock, and Horton creeks west of Bishop, at an altitude of 4,500 to 5,000 feet. In general characteristics it is similar to the main Owens River Valley. The tributary drainage area of 190 square miles furnishes sufficient water for all the land, that remaining unirrigated being generally too rough to have made its cultivation profitable up to the present time.

OWENS RIVER VALLEY, BISHOP TO ABERDEEN.

Extending from the vicinity of Bishop to just above the diversion for the Los Angeles aqueduct, near Aberdeen, is the main irrigated area of the valley. Of the 100,000 acres of agricultural land reported here, 47,400 acres are irrigated under both incorporated and private canals, Bishop Creek as well as Owens River being used. The Nevada-California Power Company has a power plant on Bishop Creek and partially regulates its flow by storage. Principal diversions in this section are by Owens River and Mesa Canal, Bishop Creek Ditch, Farmers Ditch, Upper McNally Ditch, Lower McNally Ditch, Rawson Ditch, Dell Ditch, Collins Ditch, Owens River and Big Pine Canal, Sanger Ditch, and by numerous small ditches on Bishop Creek that are within the Bishop Creek Water Users' Association. Present use of water is excessive and it is considered probable that by economical methods the water at present diverted can be made to irrigate most of the agricultural land in this portion of the valley. More economical methods of irrigation will also do much to relieve the rise of alkali over large areas of the valley land.

OWENS RIVER VALLEY, ABERDEEN TO OWENS LAKE.

From the aqueduct intake south to Owens Lake all irrigation not under control of Los Angeles receives its water supply from the tributary west-side creeks. Valley land below the aqueduct is practically controlled by Los Angeles, the city now irrigating to some extent under East Side and Stevens ditches. Surplus rights in the various creeks are controlled by Los Angeles and increase in irrigated area will depend mainly on more economical use under present acquired rights. There are 98,000 acres of agricultural land reported in this portion of the valley of which 21,900 are irrigated at present.

OWENS RIVER VALLEY, WEST AND SOUTH OF OWENS LAKE.

Lying west of Owens Lake is a strip of agricultural land extending as far south as Olancha, containing 8,000 acres, of which 640 acres are irrigated. The water supply is derived from local creeks, the run-off being less than that from similar streams farther north. Surplus rights are also controlled here by the Los Angeles aqueduct and much increase in irrigation is not probable.

SUMMARY.

Irrigation has probably reached nearer to its ultimate acreage in this division than in the other mountain sections of the State. Present practice follows the typically wasteful methods of the mountain meadows where water is generally abundant and where the native grasses are less injured by over-use than the crops of the more intensively farmed sections. There is a total of 472,000 acres of agricultural land reported that is topographically suited for irrigation, with 137,760 acres irrigated in 1911. In Alpine County, and Antelope and Bridgeport valleys, but a small portion of the agricultural area is unirrigated and the water supply is sufficient for the whole. The area southwest and northwest of Mono Lake should be capable of considerable increase in irrigated area if better transportation is provided. The areas northeast of Mono Lake and Adobe Meadows present but little possibility for irrigation and their inclusion in the classification of this report may be questioned. In the valley areas in the Owens River drainage a variety of conditions exist. In Long and Round valleys but little increase in irrigated area is to be expected as, while the water supply can be made to also serve the unirrigated agricultural land, the best of the meadow lands are already improved. In the area extending north from Bishop but little irrigation is probable except on such land as may be covered in the southern portion by higher Owens River diversions. In Owens Valley, extending from Bishop to Olancha, increase in irrigated area will come most largely through the more economical use of present acquired rights. Ultimately it may develop that it will be practicable to store water for local use in excess of the requirements of the Los Angeles aqueduct. Considering this division as a whole the increase of irrigated area from the present 137,760 acres to 200,000 acres would seem to be feasible, and ultimately, if more intensive cultivation of crops of higher return should become established, even this figure may be exceeded. The increasing injury of lower lands by over-irrigation, which is so noticeable at present, must be remedied, however, before a higher agricultural development can be expected.

SUMMARY FOR CENTRAL CALIFORNIA.

The following table resummarizes the agricultural and irrigated areas of central California and gives the areas it is estimated will eventually be irrigated in each main divison:

Summary of agricultural, irrigated, and estimated irrigable areas in central California.

Division.	Total areas of valley agricultural land. Acres.	Total areas of valley plains. Acres.	Total areas of foothill agricultural land. Acres.	Total areas at present irrigated. Acres.	Estimated area which will ultimately be irrigated. Acres.
Coastal valleys	887,000			82,000	200,000
San Joaquin Valley	6,530,000	1,046,000		1,728,975	3,850,000
Sierra foothills above San Joaquin Valley			730,000	10,620	50,000
East of Sierra Nevada	472,000			137,760	200,000
Totals	7,889,000	1,046,000	730,000	1,959,355	4,300,000

The standards adopted for the classification of the irrigable agricultural land and the present irrigated area are given in the introduction. The estimated areas which may ultimately be irrigated are discussed under each division and are based on consideration of all available information as to water supply, topography, soils, etc. While required information concerning many areas is at least partially lacking and present developments in many cases are not sufficiently complete to form the basis for an estimate of the total resources, yet it is believed that the total figures given for each of the four main divisions are fairly representative of their irrigation possibilities, and while their attainment may require a long continuation of the present rate of progress and may be retarded by present conflicting interests and lack of adequate legal control, eventually the financial returns from irrigation should force the fullest use of all available resources. The generally fair returns obtainable without irrigation in the coast valleys may make the full development slower in that portion, yet the high value of the agricultural products will justify the use of any methods which will increase the yields. In San Joaquin Valley the present rate of increase in irrigation is sufficiently rapid to furnish irrigated lands for all the new settlers who are being secured, and the construction of further systems can be expected to keep pace with the colonization demands. In the Sierra foothills increase will be slower due to the lack of transportation facilities and to the smallness of the separate areas. In the lands east of the Sierra increase in area will result from a more economical use of present supplies. With an area irrigated at present of 1,964,355 acres and with over 2,300,000 acres more whose irrigation can be considered feasible, the importance of any factors which materially influence the increase in use of these resources cannot be questioned. When the full significance of the population and the auxiliary industries which will be supported by such a development as it is reasonable to expect is appreciated, the direct interest of the State in all the problems of this development can be readily realized.

IRRIGATION RESOURCES OF SOUTHERN CALIFORNIA.

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INTRODUCTION.

The belief that the water resources of southern California are completely developed and used is erroneous. This is true for limited areas only. The waters of southern California are more fully used than those of the northern and central portions of the State or than those of other states, but development is not measured by the same standards as elsewhere. The highest duty of water, the most efficient and costly systems for transmission and distribution, and the most economical methods of application generally to be found in the irrigated sections of the United States are in this region. The agricultural industries include many of those prominent throughout the West, such as growing of alfalfa, grain, sugar beets, and deciduous fruits, the raising of live stock, dairying, and in addition, the growing of crops restricted to the semi-tropical climate of the Southwest, such as citrus fruits, English walnuts, olives, and Lima beans.

It is sufficient to say regarding lands that more territory remains unclaimed than water can ever be made available for and that these comprise areas where soil and climate are as favorable to agriculture as the best lands now being irrigated. The accompanying map shows the areas of agricultural and irrigated land, together with the more important irrigation canals. Practically all valley and agricultural land within the coastal drainage was formerly, and much of it is yet, embraced in Spanish grants. Under such condition, speculation in land begins with settlement. Nearly all of the deserts were originally Government land and settlement is under the national land laws.

Practically all reclamation has been by private enterprise. The most popular form of organization for the control and management of irrigation systems is the mutual water company, formed by landowners to provide water for their own use, and not for sale and profit. The area reclaimed by the Government is 16,500 acres and that irrigated under state irrigation districts is 15,500 acres.

A conspicuous feature of irrigation development in southern California is its rapidity, the water resources having been developed in spite of uncertainties regarding rights to use water. Storage has been discouraged more than other kinds of development, owing to the difficulty in determining the effect of storage in the mountains on pumping underground waters in lower basins. Investors have been willing to take chances on entering upon litigation and they have in many cases constructed works where it was known that litigation was inevitable.

While construction of irrigation works has been rapid, settlement of lands has kept pace with or been in advance of construction, and in this respect southern California is an exception to the general rule throughout the West. The experience has been the same on the coast and on the desert, whether the lands were public or private.

The development of electrical power has not been detrimental to irrigation in southern California, as power plants are usually located in mountain canyons above diversions for irrigation. In some cases the use of the water for power is beneficial in preventing loss by conveyance in pipes that would otherwise occur in the stream channels.

The surface waters were the first to be used. Pumping of underground waters then began in the older districts and portions of the flood waters were stored. The greatest activity in late years has been in pumping from wells. A great increase in irrigation is still possible from pumping and it remains for the flood waters to be much more completely conserved for the highest development of southern California's irrigation resources.

SANTA BARBARA AND VENTURA COUNTIES.

These are counties that have not so completely used their water resources as some others in the southern end of the State. This condition is accounted for in part by the fact that irrigation there is not altogether necessary for the successful production of crops. This division, and Santa Barbara County especially, in former years was one of less industrial activity than were the districts farther south. The owners of Spanish grants and large tracts have been slower to dispense with the comparatively free and independent life of grain growing and ranching on a large scale for the lure of greater financial profit in subdividing properties for sale and intensive culture. In this respect, this section partakes somewhat of the conditions in some of the large valleys of the northern and central parts of the State.

While it is true that very fair crops are secured in the moist atmosphere of the coast valleys, there is no longer doubt of the advantage of irrigation in either of the two counties. Formerly it was believed that English walnuts, near Santa Barbara, were better unirrigated, but experiments within the last few years have shown that the increased production and profits from irrigating the orchards more than compensate for the cost of irrigation. Even some oranges were grown without irrigation, and lemons alone were regarded as being unprofitable without water. With the success of the lemon industry has come increased interest in irrigation. Grain ranches and bean fields, even though beans themselves give good returns, are being replaced by lemon orchards where water can be secured for irrigation.

Development in Santa Barbara and Ventura counties depends largely upon the storage of flood waters. The first movement for storage will no doubt be taken by the city of Santa Barbara, owing to the need for more water for future growth. Santa Maria and Santa Clara River valleys and the Oxnard Coastal Plain are large areas where much extension of irrigation should result from pumping and storage.

SANTA MARIA VALLEY.

Santa Maria River flows westward to the Pacific coast, forming the boundary between San Luis Obispo and Santa Barbara counties. Nearly all the valley lies south of the river and in Santa Barbara County. The lower 15 miles of the river traverses Santa Maria Valley. The river's chief tributary, the Sisquoc, enters the valley at its extreme eastern end and joins the main stream on the south side.

Santa Maria Valley contains 147,000 acres of agricultural land, of which 11,441 acres are now irrigated. Most of the land holdings are from 80 to 160 acres, although there are a number of holdings exceeding 1,000 acres. Apparently the land has been formed by débris of the river filling a bay of the ocean. Some alkali is present near the coast, but much of this land may be reclaimed by drainage. A local sugar company is at present dredging a 20-foot open drain near the mouth of the Santa Maria which will reclaim about 1,000 acres of land now too moist for agricultural purposes, and has already drained 250 acres near Oso Flaco. This company also contemplates the drainage of 275 acres near Guadalupe in the western end of the valley.

Irrigation has not been regarded as necessary in this section and the water resources have not been very fully developed. Grain, lima beans, corn, and to some extent sugar beets have been grown successfully without irrigation. The sugar company supplies water to about 7,000 acres of land in the lower portion of the valley by pumping from wells and from Guadalupe Lake, a small body of water south of the river and having no connection with it and no outlet to the sea. This company also diverts water from the river in the upper portion of the valley. The Santa Maria Water Company takes water from the river for a small tract of alfalfa east of Santa Maria. The Sisquoc Water Company diverts water from the Santa Maria for the irrigation of alfalfa by means of a submerged dam. In addition to the crops already mentioned some deciduous fruits and garden truck are irrigated. Sugar beets are given one irrigation only, this occurring when the crop is about two and one half months old. Approximately 1 acre-foot per acre is used in the irrigation of sugar beets. The Union Sugar Company gives the cost of pumping water for this one irrigation from $2.80 to $3.77 per acre and the cost of water diverted from the stream about $1 per acre, also the cost of applying water from $2.50 to $4 per acre.

That portion of the Santa Maria above its junction with the Sisquoc is known as Cuyama River. This stream traverses mountain country throughout its entire course excepting one basin situated 30 miles back from the Pacific coast at an elevation of 2,200 feet known as Cuyama Valley. This basin includes 45,000 acres of agricultural and grazing land. Some grain is grown in the upper end of the valley but the greater part is devoted to grazing. The only irrigated land is one small tract in alfalfa supplied with water pumped from the river. Land holdings are large. Cuyama Valley is not reached by railroad.

The only available measurements of the Santa Maria are of 1904 and

1905. These are incomplete but show the discharge above the Sisquoc for 1905 to be about 61,000 acre-feet.[1] The watershed of the Santa Maria is 1,050 square miles and of the Sisquoc 530 square miles. The mean annual rainfall at Santa Maria for a 25-year period is 14.34 inches and is is probably 20 to 25 inches in the mountains where the elevations range from 500 to 6,500 feet above sea level. The river is subject to floods in winter and spring but becomes very low in summer. It is probable that further development may take place as result of storage of flood waters, although there is no definite knowledge of suitable reservoir sites. Santa Maria Valley is underlaid with an abundant supply of underground water as shown by wells already drilled and a large increase in irrigation should come from this source. Water stands in wells at depths of 15 to 30 feet in the lower part of the valley and at greater depths in the upper part. Practically all land in the valley should eventually be irrigated.

SAN ANTONIO AND LOS ALAMOS VALLEYS.

San Antonio Creek is the next stream south of the Santa Maria. It traverses in its middle course for a distance of 10 miles a long, narrow valley, the upper portion of which is known as Los Alamos and the lower San Antonio. Los Alamos and San Antonio valleys have an area of 15,800 acres. Large land holdings are an obstacle to rapid development by irrigation. There is very little irrigation on San Antonio Creek aside from the sugar beets of the Union Sugar Company of which there are 1,000 acres in Los Alamos Valley and 750 acres in San Antonio Valley. The beets are irrigated principally by pumping from wells but some of the water for those in San Antonio Valley is diverted from the creek. The surface flow of the creek during the irrigating season is small and the principal source of water must be the underground supply which appears to be plentiful. The watershed of San Antonio Creek is 140 square miles in area and the highest portions reach elevations of only about 1,500 feet. The watershed is of less value as a water producer than its area would indicate. No measurements of San Antonio Creek are available but its discharge is small. It is hardly probable that the irrigated area will exceed 5,000 acres.

SANTA YNEZ AND LOMPOC VALLEYS.

Santa Ynez River is the largest stream wholly within Santa Barbara County. It has a total length of 70 miles and flows westward to the Pacific, paralleling Santa Barbara Channel and being distant from it only 5 or 6 miles. The crest of the Santa Ynez range forms the dividing line between the drainage of the river and that to the Santa Barbara coast on the south. The principal tributaries enter the Santa Ynez from the north, draining a mountainous country which is an extension of the Coast Range. Practically all the valley land bordering the Santa Ynez is on the lower 18 miles of the river. There are two main basins, the lower one touching the coast and known as

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[1] U. S. Geol. Survey, Water Supply and Irrig. Paper No. 177.

Lompoc Valley, and the upper one being separated from it by the Santa Rita hills and known as Santa Ynez Valley.

Lompoc Valley contains 29,300 acres of agricultural land of which only 1,590 acres are irrigated. Both heavy and light soils are found. The crops grown include mustard, grain, sugar beets, lima beans, onions, garden truck, and deciduous fruit. The rainfall at Lompoc is about 16 inches which, together with the moist atmosphere of the coast, permits crops to be grown without irrigation with fair results, so that land owners have been somewhat indifferent to irrigation development. The Union Sugar Company irrigates about 1,000 acres of beets by pumping from wells and from a stream. A few small tracts are irrigated from pumping plants. At one time plans were made to irrigate both sides of the valley from a dam on the river two and one half miles above Lompoc. Wells are from 30 to 70 feet in depth and the pumping lifts are low. Near the coast wells from 60 to 70 feet in depth flow. Santa Rita Valley is an eastern extension of Lompoc Valley. Burton Mesa borders the ocean north of Santa Ynez River and is devoted to grain growing and grazing.

Santa Ynez Valley has an area of 29,000 acres of land that may be classed as agricultural. The land is held principally in large tracts and grain growing and grazing are the main industries. About 60 acres of the Indian reservation near Santa Ynez is irrigated with water from Santa Cota Creek, and 25 acres of alfalfa near Los Olivas is supplied with water by pumping from a well. Plans are being made to irrigate 200 acres by pumping from wells. Underground water stands at a depth of 10 to 20 feet and a number of small wells are drilled 30 to 100 feet deep.

All of the discharge of the river in the dry season is claimed and used. The greater part of the watershed of the river is within the Santa Barbara national forest reserve. The precipitation varies from 20 to 25 inches throughout the watershed. Light snows lie on the higher peaks in the winter and spring. Measurements of the river near Lompoc from 1906 to 1910 show a mean annual discharge of 167,000 acre-feet.[1] The watershed above Lompoc is 785 square miles and the mean annual rainfall is estimated at 25 inches. Several good storage sites are located on the upper river and its tributaries, but it is probable that one or more of these will be utilized for the benefit of Santa Barbara by carrying the water through the Santa Ynez Range by tunnel. A considerable portion of Lompoc and Santa Ynez valleys may be irrigated from underground waters and the flood waters if stored and used in these valleys would be sufficient for all the remaining land.

SANTA BARBARA COASTAL PLAIN.

The Coastal Plain bordering Santa Barbara Channel has a southern exposure and stretches from Naples to Carpinteria with a total length of 30 miles and a width of from one half to three miles. Back of the plain is Santa Ynez Range. The plain is divided by hills into four parts. Beginning at the west these are: Goleta Valley, Santa Barbara, Montecito, and Carpinteria Valley. The entire coastal plain embraces 30,750 acres of agricultural land including 450 acres irrigated, together with other small tracts of irrigated land, the exact area of which is not known. This is a section of natural beauty, the valleys being broken by hills dotted with live oak and bordered with sand dunes along the coast. The climate of Santa Barbara is tempered by the sea and very equable. The winds are moderated by the mountains and by the Catalina Islands across the channel. The valleys are rolling and the soil varies in character from heavy loam to light sandy soil. Bays of the ocean once extended into each of the chief basins, these having now been filled by marine deposits and stream alluvium. This filling still continues at such places as Carpinteria and Goleta landing. Land bordering the sea marshes is strongly impregnated with alkali and will not have agricultural value for many years to come. Much of the land is held in tracts of from 5 to 40 acres, the small holdings being in orchard. There are some large holdings of several hundred acres devoted to grain growing in Goleta Valley.

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[1] U. S. Geol. Survey, Water Supply Paper No. 300.

The chief crops are English walnuts, lemons, oranges, olives, apricots, figs, lima beans, and grain. This is a section where irrigation has not been been considered necessary for successful farming, although there is a growing belief that an increase in production in some crops, such as English walnuts and deciduous fruits, can be secured by irrigation that will more than justify the cost of applying the water. No attempt has been made to grow lemons without irrigation and most of the oranges are irrigated, although but few oranges are grown. The mean annual precipitation at Santa Barbara for forty-three years is 17.32 inches. While the rainfall is not much greater than for other localities farther south and inland where irrigation is very necessary, it has a better distribution. This with a moist atmosphere and mild climate produces luxuriant vegetation. The success now being had with lemons is prompting the conversion of much of the grain and bean land into lemon orchards, although lima beans themselves have given good profit in late years. Lemons are irrigated four times in a season, oranges three times, and walnuts once in the few places where they have been irrigated at all. Strawberries and garden truck are irrigated where grown. Where walnuts have been irrigated the results have proven beyond doubt the value of irrigating them. The duty of water near Santa Barbara is a little higher than in the fruit districts farther south and inland, and 1 miner's inch serves 10 acres of citrus fruit while walnuts and deciduous fruits require less water.

The numerous streams draining the southern slope of the Santa Ynez Range are short with small drainage basins and rapid fall. They are torrential following rains and the discharge becomes very low in the summer. The total watershed contributing to the coastal plain is about 100 square miles. The hills and mountains are covered with a thick mat of brush with a little timber on the higher peaks. Few of the streams have well-defined channels across the valley owing to the water all being absorbed by the sands except for short periods in the rainy season.

The following streams drain to Goleta Valley: Tecolote, Winchester, Elwood, Glen Anne, Bartlett, and San Pedro, Las Vegas and San José creeks, Maria Ygnacio Canyon, San Antonio Creek, Arroyo Burro, and Alascadero Creek. Of the foregoing Maria Ygnacio is the most important stream. The streams leading to Santa Barbara are: San Roque, Diablo, Mission, Rattlesnake, and Sycamore canyons. Those draining to Montecito are: Cold Spring, Dinsmore, and Romero canyons and Ficay Creek. The streams discharging into Carpinteria Valley are: Toro Canyon, Arroyo Parida, Santa Monica, Franklin, and Sutton canyons, Carpinteria and Gobernador creeks and Rincon Canyon.

All of the surface water of the streams is used for irrigation during the summer. Water is diverted through small ditches and pipe lines. An idea of the size of these streams may be gained by the measurements of Mission Creek, one of the larger streams. These show extremes of .02 and 2.80 cubic feet per second from 1888 to 1903, inclusive.[1] Mission Creek has been one of the sources of supply for the city of Santa Barbara. The city also secures water from a tunnel 5,080 feet long in Cold Spring Canyon. The tunnel is closed by a bulkhead in the winter until a head of over 100 feet is raised over the outlet. On being opened it delivers 1 cubic foot per second for three months in the dry season. The city recently completed its Mission Canyon tunnel, 19,560 feet in length, extending entirely through the Santa Ynez Range, with the north portal in position to receive water from Santa Ynez River and from one or more protected reservoirs on this stream. The discharge of Mission tunnel in 1910 varied from 2.42 to 5.18 cubic feet per second. Several small privately owned tunnels collect water from Sycamore and Franklin canyons and Arroyo Burro. Much of the water used in this section is secured from wells, some of which flow. The city supplements its domestic supply from Mission Creek and tunnels by pumping the De La Garra wells, seven in number, and with depths from 200 to 700 feet. Wells in Goleta Valley are usually from 80 to 100 feet in depth. Cienagas lie back of low hills in Goleta Valley, where the pumping lift in wells is not over 20 feet. Water can be pumped with gasoline engines for $.0075 per miner's inch per hour. Some wells near Montecito are from 1,000 and 1,400 feet in depth and others in the gravels along the stream are from 100 to 300 feet in depth. Wells at Carpinteria 200 feet deep produce salt water unfit for irrigation, indicating that the source is the sea, while wells only 50 feet deep in the same locality furnish fresh water. It is possible that wells could be drilled through the salt water to penetrate the same strata found in the mountains, in which case fresh water should be secured. There are artesian wells near Carpinteria about 140 feet deep. A large portion of the coastal plain can be supplied with water for irrigation by wells.

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[1] U. S. Geol. Survey, Water Supply and Irrig. Paper No. 116.

The fall of the mountain streams on the south side of the Santa Ynez is so great that there are few opportunities for storage. Gobernador Creek is said to have a reservoir site, but it is doubtful if there is enough water for storage. As the grain lands are converted into walnut and citrus orchards water will be required to produce the best results. The construction of Mission tunnel by Santa Barbara leaves the city in a position to carry out a comprehensive plan for storing the flood waters of the Santa Ynez and conducting them through the range. The high cost of the tunnel has had a tendency to discourage, for the time being, further investment for storage works, but it seems certain that this opportunity for a water supply will eventually be taken advantage of. The flood waters of Santa Ynez River would, in addition to supplying the city, furnish water for the irrigation of considerable agricultural land. Water has such a high value at Santa Barbara that the city should be able to withstand an unusually high expense for storage. A miner's inch or the one-fiftieth of a cubic foot per second of water flowing continuously at Montecito sold for $4,000 and some of the water has a much higher value for irrigation and domestic use on suburban estates. The plan involves the construction of Gibraltar reservoir to be located on the Santa Ynez below the junction with Mono Creek. Another site that has received serious consideration is on Mono Creek, the chief tributary of the river. Several other reservoir sites are located on the main river and tributaries. For the complete and best utilization of the flood waters storage must be provided to hold over water from years of high flood for use in the dry years. The Gibraltar site is most likely to be first utilized, although the discharge of the river should justify the final construction of supplemental reservoirs at one or more of the other sites. A 100-foot dam at Gibraltar would store 6,480 acre-feet while a dam 155 feet high would give a capacity of 15,793 acre-feet.[1] A 100-foot dam at the Mono site would give a capacity of 8,763 acre-feet. Measurements of the Santa Ynez at the Gibraltar dam site from 1906 to 1910 show a mean annual discharge of 94,000 acre-feet. The watershed above this site is 207 square miles. The reservoirs, if constructed, would be primarily for Santa Barbara, but some water should be available for irrigation and practically the entire coastal plain should eventually be irrigated from reservoirs and wells.

VENTURA AND OJAI VALLEYS.

The Spanish name, San Buenaventura, is usually shortened to Ventura in speaking of the city, river, and valley to which the original name was applied. The headwaters of Ventura River are collected into Ojai Valley and adjoining territory. This upper basin is drained to the Pacific through a narrow valley seven miles in length known as Ventura Valley.

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[1] U. S. Geol. Survey, Water Supply and Irrig. Paper No. 116.

VENTURA VALLEY.

Ventura Valley has 3,700 acres of agricultural land of which 1,180 acres are irrigated. The crops consist chiefly of citrus and deciduous fruits, walnuts, olives, figs, alfalfa, and grain. The city of Ventura is located between mountain and sea at the mouth of the river. The valley is widest adjacent to the city where the width is only one and one half miles. Conditions in general are quite similar to those near Santa Barbara, irrigation not being absolutely necessary to the growing of crops. The mean annual rainfall at Ventura for a period of twenty years is 16 inches. The principal diversions from Ventura River are those of the Ventura Power Company which operates two small canals.

OJAI VALLEY.

The name Ojai is derived from the Indian and means ''nest.'' It well describes this mountain valley. Live oak and ivy abound in the valley and on the surrounding hills. The valley is 12 miles back from the Pacific coast, and Nordhoff, centrally located in the basin, is 750 feet above sea level. The valley contains 11,300 acres of agricultural land, of which 850 acres, mostly above Nordhoff, is irrigated. Crops include citrus fruits, almonds, apricots, apples, grapes, alfalfa, and grain. The land is held in farms of generally less than 40 acres when in orchard but larger when in grain. Numerous pumping plants supply water for the irrigation of orchards and small tracts and the San Antonio Water Company takes water from San Antonio Creek, a tributary of Ventura River, for use in the upper part of the valley. All of the surface flow during the irrigating season is used but large quantities of flood waters run to the sea during the winter season. The Matilija reservoir site is located on the creek by that name which is one of the chief tributaries of the river. Water stored here could be conveyed to lands in Ventura Valley or the lower portion of Ojai Valley.

Ventura River has a watershed of 190 square miles. The run-off is estimated at .15 cubic feet per second per square mile giving a mean discharge of 28 cubic feet per second. The flow becomes very low in the fall and any large extension of irrigation depends on storage. Some increase is expected from additional pumping plants in Ojai Valley.

UPPER OJAI VALLEY.

Upper Ojai Valley is at an elevation of 1,500 feet on the divide between Ventura River and Santa Paula Creek. It has an area of 1,900 acres of rolling land. It is divided from Ojai Valley by hills. The greater portion is drained to San Antonio Creek and Ventura River. The Upper Ojai Valley is less developed than Ojai Valley and the conditions for agriculture are not quite so favorable as in the larger and lower basin. The winter temperatures are too low to permit citrus fruit culture and aside from a few apricots and apples grain is the only crop. There is little or no irrigation and the extent of the underground water supply is undetermined. Water is secured from wells for domestic purposes. The upper end of the valley is productive of oil. The watershed tributary to the Upper Ojai is 27 square miles in area. No reliable estimate can be formed as to the probable future development as no knowledge is at hand regarding available storage sites and it is more probable that the flood waters, if conserved, would be used along Santa Clara River.

SANTA CLARA RIVER VALLEY.

Santa Clara Valley of Ventura County should not be confused with the valley of the same name lying just south of San Francisco Bay. Santa Clara River is the largest and most important stream in Ventura County. It is formed by the junction of Laguna and San Francisquito canyons in the northwestern portion of Los Angeles County. The Santa Clara flows westerly from this junction and soon enters Ventura County and discharges into the Pacific between the cities of Oxnard and Ventura. The Santa Clara has no tributaries of consequence from the south, but three large streams, viz., Santa Paula, Sespe, and Piru creeks, from the north, drain a larger mountain territory than the main river itself. The valley is 40 miles long and gradually widens toward the west until the open coastal plain, being the delta of the river, is reached. The valley contains a total of 120,800 acres of land suitable for agricultural purposes and of this 31,020 acres are now irrigated.

All of the usual varieties of soils are found in Santa Clara Valley. In the coastal plain the soil is generally heavy while in Santa Clara Valley proper the heavy soil is confined to the low lands bordering the river. The higher lands are sandy and close to the foothills the material is very coarse and many boulders are found. Alkali is present in large quantities in the lands bordering the coast and is also found in the low lands along the river. The greater part of the irrigated land is in the central portion of the valley about the towns of Piru, Fillmore, Santa Paula, and Saticoy. The irrigated crops include oranges, lemons, English walnuts, deciduous fruits, grapes, alfalfa, beans, and garden truck, while sugar beets are grown usually without irrigation. Some grain is also produced but never irrigated. Lima beans constitute the largest crop, there being an annual production of about 63 million pounds, more than one half of the world's lima bean supply. Sugar beets also occupy a large acreage on the coastal plain, the product being taken to Oxnard for manufacture. Beets are grown on land strongly alkaline. They are usually planted early so that the tops shade the ground by the time hot weather begins, thus preventing excessive evaporation of moisture from the soil and the concentration of salts at the surface. In general beans are grown on land a little higher than the beet lands. Beets are not irrigated except in very dry years, when in some cases a little water has been supplied.

At the head of the delta of the Santa Clara is the town of Saticoy, the center of a section where deciduous fruits and English walnuts predominate. Apricots lead among the fruits, but a variety is grown. In the middle portion of the valley, about Santa Paula, Fillmore, and Piru, there are many orchards, but the crops are much diversified. This section is adapted to lemons and some valuable lemon orchards are in the vicinity of Santa Paula. On some of the low land suitable for the growing of citrus fruits located close to the foothills the removal of brush and boulders is costly, but it is being cleared very rapidly for the setting of lemon trees. In the extreme upper portion of the valley, in Los Angeles County, there is little or no irrigation, practically all of the land being used for grain and grazing.

All of the summer discharge of Santa Clara River is taken out for irrigation and about forty pumping plants take water from wells. Diversion from the river is made by ditches and pipe lines, no attempt being made, as a rule, to install permanent dams or headworks on account of the torrential character of the stream, but temporary dams are constructed at the beginning of each irrigation season with the expectation that they will not remain through the winter. A few pumping plants are located near Fillmore and Santa Paula and more on the north side of the river near Saticoy. Some of the wells in this section flow. The following companies supply water in Santa Clara Valley:

Companies supplying water in Santa Clara River Valley, 1909.

Name.	Source of supply.
De Valle Company	Santa Clara River.
Piru Water Company	Piru Creek.
South Side Improvement Company	Santa Clara River and wells.
Sespe Land and Water Company	Sespe Creek and well.
Fillmore Irrigation Company	Sespe Creek.
Interurban Land and Water Company	Santa Clara River.
Turner Ditch	Santa Clara River.
Santa Clara Water and Irrigation Company	Santa Clara River.
Vineyard Ditch Company	Santa Clara River.
Santa Paula Water Works	Santa Paula Creek.
Thermal Belt Water Company	Santa Paula Creek and Santa Clara River.
Cerurga Water Company	Well.
Saticoy Irrigation Company	Wells.
Saticoy Water Company	Flowing wells.
Montalvo Irrigation Company	Well.

The distributing systems for orchards are of concrete pipe laid underground and those for flooding consist of open, unlined ditches. The quantity of water used varies greatly. Citrus orchards are usually irrigated every four or five weeks from May until September, inclusive, 1 miner's inch being sufficient for from 5 to 10 acres. The quantity of water applied to orchards under pumping plants does not exceed 1 acre-foot per acre, but under the ditches the duty is from 1 to 2 acre-feet per acre. Deciduous fruits, including English walnuts, are irrigated with less regularity than citrus fruits and require less water. Alfalfa is irrigated once after each cutting except the last and is given 3 acre-feet or more per acre each year. Sugar beets are sometimes irrigated once before they are up and once afterwards, although their irrigation depends much on the character of the land.

The mean annual rainfall for the valley as shown by records at Oxnard and Santa Paula is about 16 inches. Winds blow inland from the coast daily throughout the summer tempering the heat of the valley. In the winter the direction of the movement of air is often reversed when winds sweep down through the valley, often with disagreeable effect but sometimes preventing much damage to citrus fruits by frost. The idea has prevailed in Ventura County, especially on the coastal plain, as it has in Santa Barbara County, that irrigation is not necessary and the success of the lima bean industry without irrigation has done much to divert attention from the development of the water resources of the county. Within the last few years more interest has been taken in irrigation through the belief that the lands now giving fair profit without water would yield a much larger one if irrigated. The principal development taking place at the present time consists in the installation of private pumping plants. The underground water of both delta and valley is very extensive and a very large portion of the land could be supplied from this source. Where flowing wells can be secured it is usually necessary to bore only about 200 feet in depth. Water can be secured in nearly any part of the valley at less than 50 feet and near the coast sometimes at less than 10 feet below the surface. Much of the land about Oxnard requires drainage for the highest development and comparatively small portions have already been tile drained.

As the lands near the coast become less moist it is probable that higher-priced crops will be grown on them and these in time will require irrigation. If the water be supplied by pumping from wells, with a corresponding general lowering of the water plane, the lower lands will be further dried and gradually the entire section may become irrigated, as has been the case in a number of other similarly located sections in the southern part of the State.

The utilization of all the underground water of the valley, together with the conservation of the flood waters of the main stream or its tributaries, would furnish all the water necessary for the irrigation of every acre of valley land. A reservoir site on Sespe Creek near its mouth has been examined by engineers and pronounced feasible for the storage of flood waters. It is probable that other reservoir sites exist in such a large area of mountainous country. The drainage basin of the Santa Clara is 1,576 square miles in area, the larger portion of which is from 4,000 to 7,000 feet above sea level. The three main tributaries are very torrential. Much water sinks on reaching the valley and underground water is so abundant that pumping has had little effect on the level.

Measurements of Santa Clara River at a point above Santa Paula made in June, July, August, and September, 1903, indicate that the summer flow of the river varied from 30 to 45 cubic feet per second. The river was discharging 127 cubic feet per second when measured in May of the same year.[1] The run-off of the Santa Clara is estimated at not less than 200,000 acre-feet, which is sufficient for all of the unirrigated valley land.

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[1] U. S. Geol. Survey, Water Supply and Irrig. Paper No. 134.

SIMI AND LAS POSAS VALLEYS.

Simi, Little Simi, and Las Posas valleys are situated south of Santa Clara Valley along a stream which is dry the greater part of the year and which is known as Arroyo Simi in its upper course and Arroyo Las Posas in the lower. The Arroyo joins Calleguas Creek, which empties into the Pacific at Mugu Laguna. Simi Valley, which is the upper one of the three basins, is separated from San Fernando Valley in Los Angeles County by the Santa Susana pass. The basin contains 13,900 acres of cultivable land, of which 530 acres are now irrigated. The Little Simi is west of and below Simi Valley. It contains 13,500 acres of valley land of which 600 acres are irrigated. Las Posas Valley, the lower one of the three basins, opens to the coastal plain about the city of Oxnard. It contains 32,300 acres of agricultural land. Connejo Valley is situated in the hills south of the Little Simi at an elevation of about 1,000 feet and has an area of 15,000 acres devoted entirely to grazing and stock raising.

Conditions in the three main valleys on the arroyo are very similar. The farms vary from 40 acres to several hundred acres, the larger ones being parts of ranches of several thousand acres extending into the hills and mountains. Crops grown include grain, beets, deciduous fruits, alfalfa, and some grapes in the Little Simi. The principal crop in Las Posas Valley is lima beans although there is a little deciduous orchard. Underground water conditions are fairly good in Simi Valley and wells bored to a depth of 80 feet in the lower portion flow. Where the flow is light pumps are used to increase the discharge. The underground water is apparently not so extensive in the Little Simi and wells must be pumped. Ground water is found at depths of 60 to 100 feet in Las Posas Valley, most of the wells being for domestic use.

An irrigation system has been planned for Little Simi Valley to be operated by a mutual company of land owners, the water to be secured from wells in the upper part of the basin. In a well 90 feet deep in this locality water stands at 10 feet beneath the surface. The water is to be used on about 300 acres located principally below Moorpark. The hills surrounding the valleys are low and some of them are denuded of brush and are used for grazing. The arroyo and its tributaries discharge no water on the surface except for short periods following storms and development of valleys by irrigation depends almost entirely on underground water. It is possible that the western portion of Las Posas Valley, sometimes called Pleasant Valley, might be supplied with water from Santa Clara River brought around the point of the hills at Springville, provided all of the water is not needed on the Santa Clara. The irrigated area should be doubled by pumping.

Summary for Santa Barbara and Ventura counties.

Area.	Agricultural land. Acres.	Irrigated land. Acres.	Estimated area that will ultimately be irrigated. Acres.	Possible sources of water for further development.
Santa Maria and Cuyama valleys	192,000	11,441	140,000	Storage on Santa Maria and Sisquoc rivers and underground waters.
San Antonio and Los Alamos valleys	15,800	1,750	5,000	Underground waters.
Santa Ynez and Lompoc valleys	58,300	1,675	25,000	Storage on Santa Ynez River and tributaries and underground waters.
Santa Barbara coastal plain	30,750	600	25,000	Storage on Santa Ynez River and tributaries and underground waters.
Ventura and Ojai valleys	16,900	2,040	5,500	Storage on Matilija Creek and underground waters.
Santa Clara River Valley	120,800	31,020	120,000	Storage on tributaries of Santa Clara River and underground waters.
Simi and Las Posas valleys	74,700	1,130	2,000	Underground waters.
Totals	509.250	49,656	322,500	

LOS ANGELES AND SAN GABRIEL RIVER LANDS.

These lands are considered together, not so much because the streams supply the same underground water basin underlying the coastal plain as on account of other conditions which they have in common. This division, together with the territory of Santa Ana River, constitutes the principal belt of southern California's coastal drainage. but its continued development depends upon some events that do not affect lands on the Santa Ana. All parts of this division, San Fernando Valley, San Gabriel Valley, and coastal plain, may receive water from another watershed. The Los Angeles aqueduct, costing $23,000,000, will deliver water by 1913 from Owens River, 270 miles distant, for irrigation at the rate of 360 cubic feet per second, or enough to irrigate over 100,000 acres of orchard, for use on land adjoining the city limits.

Water rights on Los Angeles River have been on a somewhat different basis from those on other streams, due to the city's pueblo right, strengthened by the superiority of domestic over agricultural and mechanical uses.

Land values throughout this division are influenced by the growth of Los Angeles and its suburbs, and the excellent county roads and network of electrical railroad lines extending from the city in all directions. In some areas, as for example near Pasadena, land that meets all the ordinary requirements for agricultural use has not been given such classification, because present indications are that it will be used for suburban residence instead of for agricultural purposes.

Flood waters have not been stored in the mountains, but preparations are being made for impounding the headwaters of Los Angeles River and similar improvements are expected in time on the San Gabriel.

SAN FERNANDO VALLEY.

San Fernando Valley is a basin 101,150 acres in extent, lying north and west of the city of Los Angeles. A narrow strip of land back of Verdugo hills and connected to the main valley at Verdugo and Tejunga canyons adds 9,350 acres to the agricultural area. The San Rafael hills divide the basin from San Gabriel Valley on the southeast. There is comparatively little drainage to San Fernando Valley from the south, west, and northwest. Numerous small creeks rise in the mountains and hills but they are dry throughout most of the year and their channels disappear altogether on reaching the valley. Brown's Canyon is the largest of these streams. The western extension of the San Gabriel Range is drained by Tejunga River, the Little Tejunga, and Pacoima Creek into the valley from the northeast. An extensive débris fan spreads across San Fernando Valley below Big and Little Tejunga canyons. All waters at ordinary states of the river disappear on reaching the valley. The waters entering San Fernando Valley from all sides and disappearing in the sands and gravels are brought to the surface in the lower and southern part of the valley, giving rise to Los Angeles River. This stream finds an outlet toward the Pacific through the narrows just above the city where the entire drainage of the valley is forced to pass either on the surface or as subterranean flow, making a very favorable condition for the recovery of underground water.

The floor of San Fernando Valley is a broad plain of gentle slope with some rolling land on the borders. The land in its natural state is covered with a sparse growth of cactus, sage, and chaparral, with some willow along Los Angeles River. The soil varies in hardness but the greater portion of the valley is sandy or gravelly loam. Some adobe is found near the southern hills while a sandy silt soil borders the lower course of Los Angeles River. About 10,000 acres of Tejunga and Pacoima washes lined with gravel and cobble must be considered uncultivable unless it is demonstrated that it is adapted to fruits or other crops high enough in value to justify clearing. The general slope of the land in the western portion of the valley is from 40 to 50 feet per mile but in the eastern portion the slopes reach 200 feet per mile near the hills. A large portion of the land in the southwestern part of the valley is contained within the Lankershim and Van Nuys ranch. This property is being sold to settlers in tracts of from 5 to 20 acres. Grain ranches along the bordering hills vary from 80 to 300 acres in size. A 1,500-acre olive grove, the largest in the world, is located near San Fernando. The McClay Rancho Water Company and the Mission Land and Water Company control a large acreage near San Fernando in this section of the valley while individual holdings are from 10 to 40 acres. The Tejunga Water & Power Company has subdivided a large tract of land below Tejunga Canyon and some small tracts have been purchased by settlers. Near Burbank the land holdings range from 20 to 80 acres while on the extreme lower portion of the river about Glendale the holdings are smaller and seldom exceed 40 acres. Many vegetable gardens of 5 to 10 acres are within the city limits.

The southwestern portion of the San Fernando Valley, comprising fully one half of the entire area, has been used for grain growing and grazing for many years. In 1912, 11,000 acres of sugar beets were grown by the American Sugar Beet Company without irrigation in this district. Some alfalfa is irrigated near Chatsworth and throughout the northern portion of the valley citrus fruit, olives, alfalfa, and grapes are irrigated; also some garden truck in the Tejunga area. The citrus orchards near Burbank and Glendale are all irrigated; also some of the walnut orchards. Some alfalfa near Burbank is irrigated. A great variety of garden vegetables are irrigated along the river just above the city of Los Angeles. Citrus and deciduous fruits, olives, and grapes are irrigated at La Canada and La Crescenta. Some deciduous fruits are grown in the eastern portion of the main valley but they are not generally irrigated.

A total of 10,010 acres in the main valley, and 800 acres in La Canada Pass is irrigated. Most of the irrigation in the main valley is near Fernando and Burbank. The Chavez-Feliz ditch covers 300 acres of the vegetable district on the west side of Los Angeles River in the city. Land near La Canada, La Crescenta, Glendale, Fernando, and Roscoe are furnished water by small companies. Pumping plants are scattered throughout the northern and eastern portions of the valley and in many cases they are used to supplement water from company systems when the supply is low. The land near Burbank is irrigated exclusively from private pumping plants.

The city of Los Angeles, in planning for the disposal of water brought from Owens River by the aqueduct, places the duty of water for San Fernando Valley at seven and one half acres per miner's inch flowing continuously, or 5 acres per miner's inch for a season of 250 days, which is equivalent to 2 acre-feet per acre. Near San Fernando the companies now operating estimate that 1 miner's inch is sufficient for from 7 to 8 acres and orchards are giving good results with the use of 1.1 to 1.5 acre-feet per acre annually. Tejunga Water and Power Company allows 1 miner's inch for 5 acres at a rate of 1 cent per 24-hour inch. A miner's inch under the Verdugo Canyon system serves 7 acres. The Monte Vista Water Company delivers 60 miner's inches for twenty-four hours to 20 acres every twenty-three days, making the amount applied .9 acre-feet for a season of six months. The average amount of water used in the vegetable gardens is from 3.5 to 4 acre-feet per acre per year. Some of the walnut orchards near Burbank receive from .5 to .8 acre-feet per acre while others are not irrigated. In this locality alfalfa produces seven crops per season, there being an irrigation for each. The duty of water for alfalfa, based on the discharge of pumping plants claimed by farmers, is from 2.5 to 2.8 acre-feet per acre. Alfalfa is irrigated by being flooded between field borders and by the use of detachable surface pipe. Water is usually distributed in the truck gardens by board flumes. For citrus orchards concrete underground pipe systems are used. The conditions for drainage in the San Fernando Valley are good. The sandy character of the soil and the rapid fall in the land are conducive to natural drainage.

The Spanish Pueblo of Los Angeles was granted all of the waters of Los Angeles River. The Supreme Court of California in upholding this right has ruled that all the waters of the river and its tributaries both above and below the ground surface may be used by the city if needed. As this includes the entire drainage basin of San Fernando Valley development of water by private corporations has been somewhat discouraged. The city's pueblo right is strengthened by domestic use being superior to agricultural use. In late years the city has enjoined a number of individuals from operating pumping plants in the valley but it is understood that the right is to be enforced only in case of shortage, which contingency is not likely to arise in the future as the aqueduct will supply more water from Owens River than is needed for domestic use. The rights of the Chavez-Feliz ditch are defined by the court decisions and some water is allowed for use under this ditch. Water from Brown's Canyon is claimed by the San Fernando Water Company. Water from San Fernando Creek is used by the Mission Land and Water Company while that from Pacoima and Little Tejunga creeks is diverted by the McClay Rancho Water Company. Rights on Tejunga River seem well adjusted between the company and the private appropriators. Litigation over the water from Verdugo Canyon has now been settled. The Tejunga Water and Power Company has filed on all of the unused waters of Tejunga River to be used for both power and irrigation and this company controls ten mountain reservoir sites on the river which it is proposed to develop in the future. It is probable that construction of one or more of these will be begun as soon as water from Owens River becomes available for use in Los Angeles and the surrounding country. The use of the water for power will not be adverse to irrigation as it can afterwards be delivered for use on lands below Tejunga Canyon and too high to be covered from the aqueduct reservoirs.

It is probable that reservoir sites might be found on Little Tejunga and Pacoima creeks suitable for storage of the flood waters. The San Fernando Water Company holds a reservoir in Brown's Canyon with an estimated capacity of 2,500 acre-feet but the watershed of this stream is so poor that the reservoir has not been of great value. Two reservoirs, with a combined capacity of 40,000 acre-feet, are to be constructed in connection with the Los Angeles aqueduct northwest of Fernando and another is projected for a site southwest of Chatsworth with capacity of 45,000 acre-feet. A reservoir at this point would be in a position to serve 23,700 acres in the southwestern portion of the valley.[1]

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[1] Report of Advisory Engineers on distribution of surplus water from Los Angeles aqueduct.

The chief source of water for the further development of San Fernando Valley will be the Los Angeles aqueduct. The city was taking about 60 cubic feet per second by pumps from the river in 1911 and it was estimated that about double this amount will be required for domestic use within a few years. Allowing for this increased use there remains 360 cubic feet per second of water to be brought by the aqueduct by 1913 for use in irrigating lands adjacent to the city. The plans being formulated for the disposal of this water will confine its use to districts now adjacent to the city which can be conveniently annexed if the population spreads until it covers these lands. If the water is used for irrigation at the rate of 1 miner's inch per seven and one half acres and at some future time the water is required for domestic instead of agricultural uses on these lands there will be more than a sufficient amount for domestic use. The surplus water from the aqueduct will be more than is needed for the irrigation of all of the land of San Fernando Valley. It is proposed to give the land owners of this valley preference in subscribing for the use of water from the aqueduct because its application in San Fernando Valley will be advantageous to the city in several respects. It would no doubt require less distributing pipe than for the conveyance of water to districts south and east of the city. The chief advantage, however, is the favorable condition for the recovery of water that returns to Los Angeles River from the soil. It is estimated that one fourth of the amount applied to land in San Fernando Valley will reach the narrows above the city as surface or underground water. It is the plan of the city to construct and retain ownership of the main distributing pipes from the aqueduct and to charge an annual rental to associations of water users taking the water. The price proposed is reasonable compared with prices for water for citrus orchards south of the Sierra Madre Range. The terminus of the aqueduct north of San Fernando is at an elevation of 1,400 feet above sea level. From this point the water will drop 300 feet to the San Fernando reservoirs, the resulting head being used for the development of power. The reservoirs have an elevation that will command 95,000 acres by gravity in the valley. The extreme northern portion of the valley above these reservoirs can be fully irrigated from Tejunga River, Pacoima Creek, and other local sources.

If the restriction imposed by the city on the pumping of underground waters in San Fernando Valley is withdrawn it is expected that development will proceed rapidly. The underground water conditions already favorable will be improved by seepage from land supplied with aqueduct water.

Water can be pumped for $.005 to $.015 per miner's inch per hour throughout the greater portion of the valley. In general the depth to ground water becomes less from the north and west to the southwest. Water stands at 80 feet below the surface in a well 300 feet deep on the olive grove above San Fernando. Wells north and east of San Fernando from 80 to 100 feet in depth require the water to be lifted about 60 feet. Water stands at from 50 to 80 feet in wells drilled from 250 to 300 feet in the vicinity of Van Nuys. Near Burbank the depth to water is usually not over 30 feet and wells are bored from 60 to 100 feet deep. The pumping lift on the Orange Cove tract is 212 feet. It is not expected that the irrigated area near Glendale will increase as this is fast becoming a suburban residence district to the city. Eagle Rock Valley near Glendale formerly contained some irrigated land but this is now being transformed into a suburb. Water must be lifted about 160 feet near La Canada. It is probable that this section will also become a residential district. Near Sunland south of Tejunga River water must be lifted from 60 to 80 feet in wells.

The entire watershed tributary to the San Fernando basin is 310 square miles in area. The most valuable part of the watershed as a water producer is that drained by Tejunga River, Little Tejunga and Pacoima creeks with an area of 190 square miles. The run-off from this area should be sufficient with storage to supply all of the lands in San Fernando Valley that cannot be economically reached by laterals from the aqueduct or from wells.

SAN GABRIEL VALLEY.

San Gabriel Valley, like San Fernando Valley, is almost completely surrounded by hills and mountains. Its only drainage exit is Paso de Bartolo, two miles wide. Besides San Gabriel River, small streams that enter the valley from San Gabriel Mountains, to be lost in the sands but which may be considered tributaries of the main stream, are: San Dimas Creek, Big Dalton, Little Dalton, Sawpit, Santa Anita, Little Santa Anita, Eaton, Los Flores, and Rubio canyons. Arroyo Seco enters the northeastern corner of the basin above Pasadena, but finds an outlet to Los Angeles River through the hills on the west. Millard Canyon joins the arroyo. San Gabriel Valley consists of the débris fans or cones of the river and tributaries. The alluvium has been raised until it is certain, as shown by borings, that the depth to bedrock at places exceeds 1,000 feet. It is evident that there is some barrier to the passage of underground water southward from Pasadena and that this barrier, now buried by the alluvium, is an extension of Raymond Hill and Oak Knoll toward the northeast, although the surface contour shows but little evidence of such extension. A similar condition is found at the eastern extremity of the valley near the head of San Dimas wash where hills intercept the underground waters. The head of this wash is very favorable for securing good wells, although the summer discharge of San Dimas Canyon is very small. The débris cones of the streams are very coarse and porous near the canyons and readily absorb large quantities of water. Boulders, cobbles, and gravel are found in great abundance along the washes. The material becomes gradually finer and grades to sand and silt in the lower courses of the channels. The water of all tributaries of San Gabriel if not taken out for irrigation would be entirely absorbed before reaching the river except during floods. The river itself has considerable discharge throughout the year, although all of the water is diverted in the canyon for irrigation during the summer. The lower part of San Gabriel Valley has an abundance of underground water due to all water absorbed above having to go through Bartolo Pass.

Portions of San Gabriel Valley are highly developed, due to their natural surroundings and to their proximity to Los Angeles. The portion of the valley east of the river includes the famous citrus districts of Covina, Azusa, Glendora, and San Dimas. The higher lands in the western section about Pasadena, South Pasadena, Alhambra, San Gabriel, Altadena, Sierra Madra, Monrovia, and Duarte, are as well adapted to citrus culture as the eastern portion of the valley, but, excepting Duarte, are not so advantageously situated for water from streams. The upper portion of the San Gabriel basin has gravelly and sandy loam soils and good drainage, the slopes being from 100 to 200 feet per mile. The lower portion of the valley slopes at the rate of about 50 feet per mile and has soils finer in texture. These low areas are frequently visited with frosts and are not adapted to citrus culture. A variety of crops are raised, including alfalfa, deciduous fruits, English walnuts, strawberries, and garden truck, all of which are irrigated, and barley for hay and grain grown without irrigation. A large part of the Baldwin ranch, including the La Puente grant, is devoted to grain growing. This property borders San Gabriel River and has an area of 3,300 acres. Aside from this ranch holdings are generally small, the usual size of an orange orchard being about 10 acres. Walnut orchards are from 10 to 40 acres.

The San Gabriel Valley has a total of 78,636 acres of agricultural land, of which 36,536 acres are irrigated. Water for the foothill districts on the west side of the river is secured from pipe lines and tunnels in the small mountain canyons and from pumping plants. Several water companies furnish domestic water to Pasadena and surrounding settlements, the service including the irrigation of small tracts of fruit, garden, lawns, and shrubbery. Two submerged dams have been constructed in the channel of Arroyo Seco, which have been effective in raising the water level behind them and thereby reducing the head against which pumping plants must work. The Azusa and the Covina irrigating companies supply about 1,000 acres of citrus orchards near Azusa, Covina, and Glendora on the east side of the river, the water being diverted from San Gabriel Canyon by a dam and tunnel and conveyed to the orchard by cement-lined ditches and underground cement pipe. The Duarte Mutual Company diverts water on the west side of the river for citrus orchards. A small amount of gravity water is secured from San Dimas Canyon by the San Dimas Irrigation Company, but the main supply of this company is from pumping plants in the head of the wash near San Dimas. Water is pumped in the wash below San Dimas Canyon and conveyed to lands near Glendora, Azusa, and Covina. There are in all over 40 water companies. Nearly all of these supply water for agricultural purposes alone and are mutual organizations of the land owners. The systems of the private companies that formerly furnished domestic water to Pasadena were purchased by the city in 1912. There are no flowing wells, but pumping plants are found throughout most of the valley. Some of the most productive wells to be found are those in the vicinity of Irwindale, pumped to supplement the gravity supply of the Azusa and Covina Irrigating Company. Single wells in this locality are claimed to deliver upwards of 300 miner's inches. The gravels which they penetrate are supplied by water percolating southward from San Gabriel wash. These gravels are so coarse that they not only give up the water with which they are saturated very readily, but are soon recharged by the flood waters from San Gabriel Canyon. The Irwindale wells are bored to depths of 400 to 500 feet and the water must be lifted from 60 to 100 feet. The depths of wells in San Dimas wash is about the same, but the lift is higher and varies from 150 to 225 feet. There is an abundance of underground water south of El Monte and just above Bartolo Pass, the plane being from 5 to 10 feet below the ground surface. North of El Monte the depth to well water increases to about 90 feet. In the vicinity of San Gabriel and Alhambra the water level stands at from 50 to 100 feet below the surface.

The following companies operate in San Gabriel Valley, nearly all of which are mutual organizations:

San Dimas Irrigation Company.
Artesian Belt Water Company.
Le Verne Irrigating Company.
Frostless Belt Water Company.
New Deal Land and Water Company.
Glendora Mutual Water Company.
Glendora Irrigating Company.
Azusa Irrigating Company.
Azusa Agricultural Water Company.
Citrus Belt Water Company.
Covina Irrigating Company.
Columbia Land and Water Company.
La Puente Coöperative Water Company.
Duarte Mutual Irrigation and Canal Company.
Beardslee Water Ditch Company.
Monrovia Water Company.
Monrovia Acres Water Company.
Walnut Grove Mutual Water Company.
Sierra Madre Water Company.
Baldwin Park Water Company.
West Coast Water Company.
Lincoln Avenue Water Company.
Euclid Avenue Water Company.
Rubio Canyon Land and Water Association.
Los Flores Water Company.
Precipice Canyon Water Company.
Craig Lambert Water Company.

Garvey Water Company.
Fairlee Water Company.
Pasadena Land and Water Company.
Pasadena Lake Vineyard Water Company.

The duty of water for citrus orchards throughout this belt may be stated as about 10 inches in depth annually on the land or as from 7 to 8 acres per miner's inch flowing continuously. In the lower part of the valley walnut trees are sometimes set with an unusually wide spacing and alfalfa grown between the rows. For this land it is usual to apply from 2 to 3 acre-feet of water per acre annually. Walnuts alone require less water than citrus fruits. Agricultural practice is as good as can be found in any irrigated district in the West, the culture being very intense, especially in the orchards. Every precaution is taken to conserve the moisture applied. Several areas of moist land on the Potrero Grande grant have been tile-drained with good results. The water previously stood within 5 feet of the surface. As more wells are drilled to supply the unirrigated lands of the Baldwin ranch it is probable that the ground water will be sufficiently reduced to dry some of the land that is now moist along the southern boundary of the basin. Alkali is not present in these localities to any great extent.

The rights of most of the companies diverting water from the streams have been fixed by court decrees. The San Gabriel Power Company utilizes a portion of the waters in San Gabriel Canyon for the development of electric power. The company has constructed a submerged dam across the canyon, which is one of the most effective dams of this type and which enables practically all of the normal flow, both surface and underground, to be conducted through the power house. The conveyance of the water in pipes for power results in a saving. The salvage has been determined and has been purchased by the Covina Irrigating Company, by which it is used.

Considerable of the land now being dry-farmed in San Gabriel Valley can be irrigated with underground water, but it is not probable that this supply will be sufficient for all of the dry land and it is doubtful if there will be any material increase from a more economical use of water. The Los Angeles aqueduct engineers report that water could be conveyed from the aqueduct at a point north of San Fernando, through La Canada Pass to lands at Pasadena, South Pasadena, and Alhambra, and estimate that the city can afford to furnish water for the irrigation of 13,920 acres after first providing for San Fernando and Cahuenga valleys. It would also be possible to extend the service of the aqueduct to an area of 38,250 acres west of the river and 40,000 acres east of the river in San Gabriel Valley, provided the water is not asked for by the land owners of San Fernando or Cahuenga valleys. Water, if received from the aqueduct, will be at the rate of 1 miner's inch for seven and one half acres. The discharge of the stream is so erratic from season to season that storage reservoirs, to be serviceable, should have sufficient capacity to hold back enough water from years of copious rainfall for use in dry years. A high cost for storage should be justified by the value of the water for citrus orchards. One of the most serious problems in the maintenance of reservoirs on such streams as the San Gabriel is to prevent the rapid filling up of the basin by the débris carried by the streams. Reservoirs in some of the main canyons would have to pay for themselves in a comparatively short period of years, as their capacity and usefulness would be reduced. So long as dams are not constructed for the storage of flood waters much could be accomplished in replenishing the underground waters of San Gabriel Valley by the spreading of the flood waters over the gravels below San Gabriel Canyon. This kind of storage has been effective on other streams in southern California where the conditions are no more favorable than those on the San Gabriel.

The San Gabriel has a mountain watershed of 222 square miles, over which the annual precipitation varies from 15 to 40 inches. The winter snows are held on the higher peaks well into the summer. The gagings[1] of the river above Azusa since 1896 show a maximum discharge of 11,000 cubic feet per second occurring in March, 1905. The minimum discharge is 3 cubic feet per second in July; also September of 1899, and September, 1900. The greatest total annual discharge is 351,000 acre-feet, the amount for 1906-7, and the lowest 10,000 acre-feet, the amount for 1898-99. The mean annual discharge is 104,500 acre-feet. Without storage the entire discharge of San Gabriel River and of the other small streams entering the valley is not sufficient in the driest years for the irrigation of all of the agricultural land, but with storage capacity sufficient to take care of all of the flood waters in ordinary years and with further development of underground waters it is possible that all of the land can be irrigated.

SAN JOSE CREEK VALLEY.

The territory included under this heading is the valley of San José Creek, reaching from Puente to a point about 2 miles below Spadra. The valley is from 1 to 3 miles in width only and lies between Puente and San José hills, the latter range separating it from Covina Valley on the north. San José Valley contains a total of 10,350 acres, of which 3,401 acres were irrigated in 1909. The greater portion of the land lies within Rancho La Puente, but the lower valley lands which are irrigated have been cut up into holdings of from 5 to 40 acres. The higher lands bordering the hills on both sides of the valley are used for grain and hay and are dry farmed in larger tracts. Several small ditches take all of the surface flow of San José Creek during the irrigating season. In recent years many pumping plants have been installed in the bottom lands close to the creek. Oranges, lemons, deciduous fruits, strawberries, and alfalfa are the principal crops irrigated, while many of the English walnuts also receive water. Alfalfa and deciduous fruits are not grown in large quantities, but the valley has developed very rapidly during the past few years by the increase in citrus and walnut orchards and berry patches.

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[1] U. S. Geol. Survey, Water Supply Paper No. 300.

The ditches along San José Creek have rights based on the riparian land irrigated and on appropriation and use. One case of litigation hinged principally on whether underground water was the subterranean flow of the creek or percolating water saturating the valley. In the recent suit entitled *Hudson* vs. *Daily,* the court enjoined the defendant from driving a tunnel where it would draw water already appropriated directly from the creek itself.

San José Creek has no mountain watershed and the local drainage from San José and Puente hills is of little consequence. A few flood water channels reach back into the hills for 3 or 4 miles, but there is scarcely any surface flow in any of these when water is needed for irrigation. Further development by the extension of the irrigated area must come entirely from sinking more wells or from a more economical use of water. At the present time a goodly number of wells are being drilled in the lower part of the valley, from Walnut to Puente, and it is difficult to estimate the ultimate acreage that can be irrigated without an overdraft on the underground supply. There has been some reduction in the underground level during the past few years, but as yet the pumping lifts are not comparatively high. It is probable that at least two thirds of the agricultural land will eventually be brought under irrigation. Owing to the proximity of the hills inclosing San José Valley the precipitation is greater than in the more open and larger valleys on both the east and west. The section about Walnut, in spite of its comparatively low elevation with reference to Pomona, Covina, and other neighboring fruit districts, is favorable for the growing of oranges, and damage which would otherwise result from frosts in this lower area is prevented by the unusual air movement through the narrow valley. Berry growing and truck gardening will no doubt continue to be one of the principal industries.

LOS ANGELES COASTAL PLAIN.

The coastal plain south of Los Angeles and east of Orange County is 242,500 acres in area and is one of the largest bodies of agricultural land in southern California. The plain is limited on the north by Santa Monica Mountains and Puente hills. On the west is the Pacific Ocean and on the south San Pedro Bay. The part from Hollywood to Santa Monica is known as Cahuenga Valley. The plain has a gentle slope from elevations of 200 to 300 feet along its northern boundary to sea level. The land probably originated in part from the alluvial deposits of Los Angeles and San Gabriel rivers and in part by the wash of the sea. There is no exact demarcation between the lands of these two rivers and those of Santa Ana River, farther to the east. A conspicuous break in the slope of the plain itself is a ridge or line of knobs running southeast from Cahuenga Valley to Alamitos Bay at the mouth of San Gabriel River on the southern coast, the highest point of which is Los

Cerritos, just back of Long Beach. This ridge is an important factor in the action of underground water by holding a high level on the upper side.

The soils throughout this area are generally fine in texture. A large area on Ballona Creek has dark brown loamy soil. Some clay is found in the vicinity of Inglewood, but the most of the soil is sandy and silt loam, the latter occurring along the river channels. The bench lands near Whittier consist of an open surface soil with good drainage underlaid with a more compact subsoil. Some adobe occurs in the lowest portions of the plain and limited areas of peat border Alamitos Bay, Wilmington Lagoon, and several sloughs. Lands containing from 1 to over 3 per cent of alkali are near Wilmington Lagoon, northeast of Inglewood, south of Gardena, near Nigger Slough, north of Dominguez hills at the mouth of Ballona Creek, and in a few other isolated spots.[1] Some of the land along Los Angeles and San Gabriel rivers has from .6 to .4 per cent, while throughout the remainder the alkali content is less than .4 per cent. Much of the low land between the two rivers is moist and has been used principally for pasture. Sugar beets are grown on portions where there is too much salt for other crops.

In the vicinity of Whittier the land has a slope of about 50 feet per mile, but the lower portions of the plain are very flat. This entire area was originally in Spanish grants, which, after passing into the hands of American owners, were first operated as large ranches, but in later years some have been colonized. As a result of this the land holdings are either very large or very small. Near Inglewood and Gardena tracts are usually from one half to 5 acres. Throughout the coastal plain the subdivided land holdings seldom exceed 40 acres and the majority are from 5 to 10 acres.

Citrus and deciduous fruits, garden truck, strawberries, and alfalfa are always irrigated as are most of the walnuts. The irrigation of sugar beets usually consists of a single irrigation of the land before the seed is planted. Beans irrigated in 1911 under the Rodeo Land and Water Company system gave an increased yield of about one third. Citrus fruits are confined nearly altogether to the bench lands bordering Puente hills, near Whittier. Just below these lands is a strip of country reaching as far south as Downey, devoted largely to the culture of the English walnut. Throughout the rest of the plain the crops are diversified, barley, corn, melons, and beans being grown without irrigation in addition to the irrigated crops previously mentioned. Lima beans occupy a large area in Cahuenga Valley and English walnuts and alfalfa are grown along Ballona Creek. Some citrus orchards are located near Hollywood. The territory immediately adjoining the Los Angeles city limits on the east and south and including the settlements of Newmark, Gardena, Moneta, and Inglewood, is devoted largely to garden truck and berries, while sugar beets are best adapted to the low-lying lands near the southern coast. Alfalfa is grown throughout the central portion of the plain and about Artesia and Norwalk. Some orange groves are found in the Whittier hills. Whittier is one of the important walnut sections in the State and has an association with 180 members representing about 3,000 acres in groves. The value of the walnut crop of this district is estimated at about one million dollars annually. Some walnut orchards are, however, being replaced with Valencia oranges.

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[1] U. S. Dept. Agr., Bureau of Soils, Soil Survey of Los Angeles Area, Cal.

A total of 117,507 acres is irrigated on the coastal plain. Except for the territory about Whittier and Downey, the greater portion of the land is supplied from pumping plants and artesian wells. The Whittier district is supplied by a number of old ditches taking water from San Gabriel River, near Bartolo Pass. The East Whittier Irrigation Company ditch of later construction supplies 5,600 acres, principally at East Whittier. Twenty small water companies are operating on the coastal plain. Most of these secure water by pumping from wells.

Alfalfa is irrigated five times, and 1 miner's inch for 250 days serves about 3 acres. For fruits and berries 1 miner's inch is sufficient for about 7½ acres. The old ditches on the San Gabriel are owned and operated mutually by the landowners, while some of the smaller water companies are private corporations selling water.

The water rights of the old San Gabriel River ditches are based on appropriation and use; also in most cases on the riparian character of the land served. The summer flow of Los Angeles River below the narrows is very small as all of the surface water and nearly all of the underground water is diverted by the city above the narrows. There is a small surface flow in the lower course of the river, but this is very unreliable and the American Colony ditches are usually dry when water is most needed, so that wells are now being bored to insure a more certain supply for these lands. Since the greater part of the land on the coastal plain is supplied with water from wells there has been very little litigation over water rights outside of the Whittier district. A suit entitled *Arroyo Ditch and Water Company* vs. *San Antonio Irrigating Company,* over the diversion of water in San Gabriel River, begun in 1886, was compromised.

Bartolo Pass is extremely favorable for securing both surface water and underground water, as all the drainage into San Gabriel Valley must pass through this gap. The coastal plain has comparatively little local watershed. The run-off from Puente hills occurs immediately after rains and is of little consequence. That from Santa Monica Mountains adds somewhat to the underground waters of Cahuenga Valley and to Ballona Creek. The rainfall over the coastal plain varies from 12 to 16 inches, being least at the coast and greatest near the hills. The record at Los Angeles for a period of thirty-four years is 15.60 inches. The underground water must be looked upon as the most available source of supply for further development of this region. Cahuenga Valley is to be given opportunity to subscribe for water from the Los Angeles aqueduct for 30,000 acres and there is a possibility of 21,000 acres near Inglewood and 29,000 acres near Redondo receiving water from the aqueduct in case it is not all taken for higher lands.[1] Water supplied from the aqueduct will be at the rate of 1 miner's inch for 7½ acres, or with storage in Franklin Canyon of the Santa Monica Mountains, 1 miner's inch for 5 acres for 250 days. It is probable that the underground waters are sufficient for the irrigation of a portion of the land not now being watered. The largest artesian basin in southern California lies within this plain and good wells can be secured in almost any locality. The artesian area was reduced somewhat in 1905 and 1906 following years of low rainfall, but since that time there has been a slight rise in the level of the underground water. The source of the underground water is the precipitation over the drainage basins of Los Angeles and San Gabriel rivers and it is probable that the winter floods in these streams contribute most to the underground supply. The water which is absorbed by the sands and loose sediment along the streams percolates toward the sea. It is arrested somewhat by the ridge running northwest from Alamitos Bay and a level is maintained on the northeast side of this ridge, which is considerably higher than the level on the side towards the sea. This brings the ground water to the surface of the lowest lands bordering the upper side of the ridge and accounts for the large area of moist soil near Los Cerritos and for numerous marshes in this section. As the artesian area enlarges and contracts with wet and dry periods its upper boundary shifts north and south. At one time the upper edge of the area was as far north as the Laguna between Los Angeles and Whittier, but at the present time it extends no farther north than Norwalk and Downey. The area includes most of the country about Compton, Clearwater, and Artesia and extends towards the southeast across the Orange County line, where there is an area about as great as that in Los Angeles County. In general, flowing wells are secured by boring into strata from 200 to 700 feet in depth. Near Artesia wells 200 feet deep do not as a rule flow all summer, but wells 600 feet deep continue to flow throughout the dry season. A new well 700 feet deep one mile east of Norwalk gives a discharge of 20 miner's inches, a large portion of the water being from a stratum about 400 feet in depth. The Compton wells, from 300 to 700 feet deep, flow following years of good precipitation, but they must be pumped during dry periods. The water stood from 6 to 8 feet below the surface in 1912. Wells 150 feet deep in this locality flowed 25 years ago. At Fruitland, just south of Los Angeles, at an elevation of 200 feet, the water stands at a depth of 60 feet from the surface in wells bored to a depth of 300 feet. The artesian area at one time reached this locality, but its northern limit is now about 8 miles to the south. Near Downey, in a new well 171 feet deep, the water stands at 7 feet below the surface and is pumped down an additional 18 feet when discharging 100 miner's inches. Wells 700 feet deep in the same locality are flowing. The well of the Santa Gertruda Water Company, near Los Nietos, is 700 feet deep and requires a lift of 30 feet when pumping 200 to 300 miner's inches. In the area directly east of Los Angeles and north of the Laguna water must be lifted from 10 to 50 feet by pumps, the wells being 500 or 600 feet in depth. About Gardena and Inglewood wells are bored from 150 to 600 feet in depth. The water usually rises to within from 50 to 65 feet of the surface. The depth of wells in Cahuenga Valley is as follows: Near Santa Monica 75 to 150 feet, near Sawtelle 75 to 200 feet, near Ballona 100 to 300 feet, and near Hollywood 150 to 300 feet. Wells for irrigation usually deliver from 50 to 100 miner's inches of water each. A well 912 feet deep on the American Colony lands north of Long Beach delivers 75 miner's inches when pumped. Water stands at 5 feet below the surface. The fluctuations in the ground water level seldom exceed 20 feet in one year. In most localities the water level is higher in winter than in summer, a noticeable rise beginning in August.

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[1] Report of Advisatory Engineers on distribution of water from Los Angeles Aqueduct.

The land about Whittier and Downey is already highly developed, although extensions of the citrus orchard district are encroaching on the foothills. The principal reason why development has not been more rapid in some localities is that all the land being in Spanish grants has been acquired in large tracts by companies and held at high prices.

The central portion of the plain is not so desirable for residences as the terraces bordering the Santa Monica Range and has been more strictly on an agricultural basis. A large area of moist land near Long Beach needs drainage to make it highly productive and profitable. Some of this land is now producing sugar beets but with drainage more valuable crops could be grown. Where there is much alkali drainage alone may not be sufficient to reclaim the land, but the leaching of the soil resulting from irrigation may accomplish the desired result. The Bixby Land Company has tile drained 300 acres with the result that the salt content of the land is much reduced. Portions of the coastal plain are adapted to alfalfa and dairying and there is a ready market for dairy products.

Summary for Los Angeles and San Gabriel River Lands.

Area.	Agricultural land. Acres.	Irrigated land. Acres.	Estimated area that will ultimately be irrigated. Acres.	Possible sources of water for further development.
San Fernando Valley	110,500	10,010	105,000	Los Angeles aqueduct, storage on Tejunga River and underground waters.
San Gabriel Valley	78,636	36,536	70,000	Los Angeles aqueduct, storage on San Gabriel River and underground waters.
San José Creek Valley	10,350	3,401	6,500	Underground waters.
Los Angeles coastal plain	242,500	117,507	200,000	Los Angeles aqueduct and underground waters.
Totals	441,986	167,454	381,500	

SANTA ANA RIVER LANDS.

This division is different from that including Los Angeles and San Gabriel rivers by having its water supply entirely within its boundaries. A miner's inch of water serves 7 to 8 acres of citrus orchard, 10 or more acres of deciduous orchard, and 3 acres of alfalfa in districts at the base of the San Gabriel Range, and 5 acres of citrus orchard at Redlands and Riverside. That production has not been lessened by lack of water is shown by the large shipments of citrus fruit and by the high market value of alfalfa ranches.

Values are not so much affected by city suburban influences as in the division embracing Los Angeles and San Gabriel rivers, although the Santa Ana division includes choice residential districts. Orchards must produce fair interest on the investment and values are on this basis.

Part of the flood waters of Santa Ana River are already stored in the mountains, but there is opportunity for further improvements of this kind. Much more pumping will also be done from wells along the Santa Ana. The principal thing which remains undetermined is the extent to which pumping in the upper basins will affect the water supply in Orange County. Water rights are based on appropriation and use and filings are regarded as superficial. The litigation on the Santa Ana, of which there has been much, has developed some of the fundamental principles of water rights in California, especially with reference to underground waters.

POMONA VALLEY AND CUCAMONGA PLAINS.

The territory included under this heading is at the southern base of the Sierra Madre Range from San Dimas to Lytle creeks and is limited in area. It is bounded on the south by Chino hills, Jurupa Mountains, and the Santa Ana River. The region embraces several débris fans spreading from small canyons in the Sierra Madre Mountains and which combine to form a gently sloping plain toward the south from this range. The drainage is to Santa Ana River, but the surface flow of the stream does not ever reach the river and the territory is considered apart from the Santa Ana River drainage in the San Bernardino basin. In former years the flood waters of San Antonio Creek sometimes crossed the valley and reached Chino Creek without sinking into the sands and were then carried by this stream to the Santa Ana. The waters of Chino Creek are brought to the surface by the hills which intervene to prevent further passage of underground waters percolating southward from San Antonio Canyon.

This section includes Pomona, Lordsburg, Claremont, Ontario, Upland, Cucamonga, Etiwanda, and Chino. The chief industry about these settlements, except the last mentioned, is the growing and shipping of citrus fruits. The alluvial lands, like those of the San Gabriel Valley, are very coarse in the upper areas below the mountain canyons, the material becoming gradually finer as the low areas by the southern hills are approached. The washes of the streams branch out into numerous gravelly channels below the canyons where some land is so rocky that it is doubtful if it will ever be reclaimed for agricultural purposes even though water should be available for irrigation. Farther away from the foothills the soil is gravelly but is very productive when the boulders and cobbles are removed and water applied. Sandy loams predominate farther down the slope and black adobe is found in the lowest areas. Before the country was developed these adobe lands were very moist and the long continued growth and decay of vegetation blackened the soil. A few mesas or bench lands bordering the foothills differ in character from the gravelly lands about the mountain canyons. These bench lands are reddish in color as contrasted with the decided gray of the wash. Conspicuous among them are the heights about Le Verne and Lordsburg, Indian Hill just above Claremont, and Red Hill northwest of Cucamonga. Alkali is not in evidence except in the low moist lands bordering Chino Creek and Santa Ana River. Several hundred acres south of Chino have been drained by the American Beet Sugar Company for the growing of sugar beets. Drainage has been effective in removing much of the salt. The principal purpose of drainage, however, was to rid the land of its moisture in order that early planting of beets might be practiced. The soil, too salty for ordinary crops, would produce sugar beets without drainage. The slope of the land is very steep near the base of the mountains, averaging 200 feet per mile. The lower part of the valley has a fall of only about 50 feet per mile. Practically all of the upper lands are planted to citrus fruits, the orchards being in almost solid areas wherever water can be secured for their irrigation. In the southern and southeastern portion of the division, where the soil is too tight and the frost too severe for the growing of citrus fruits, the crops consist principally of alfalfa, deciduous fruits, English walnuts, sugar beets, berries, and garden truck. The eastern portion of this territory is the least developed, there being little or no water for irrigation. The Italian and other vineyards occupy several thousand acres of sandy soil from Cucamonga and Etiwanda southeast to Jurupa Mountains. Portions of this section which are without water for irrigation, not planted to grapes, are utilized for grain. Orchards are usually about 10 acres and alfalfa ranches from 20 to 80 acres. A large portion of the lower plain is occupied by the Chino grant on which there is 19,000 acres of tillable land. This grant, after passing into the hands of American owners, was under mortgage for a number of years, preventing sale of the land and causing settlement to be slow compared to other places in southern California with equal opportunities. In 1906 the indebtedness against this property was cleared and since that time development which had previously been begun around Chino has extended rapidly toward the south and east until at the present three fourths of the land is occupied.

The chief source of water for irrigation, especially at Pomona and Chino, is the underground supply. All of the summer discharge from the mountain canyons was appropriated and used years ago. After first satisfying an old right, the summer discharge of San Antonio Creek is divided about equally between Pomona and Ontario up to a total 624 miner's inches, in accordance with a court decree. The waters of Cucamonga Canyon are diverted and used by the Cucamonga Water Company and those of Etiwanda and Day canyons by the Etiwanda Water Company. Besides the surface water the subterranean flow of all these canyons is drawn upon by means of tunnels which have been driven into the gravels. The greater portion of the land about Ontario and Upland is under the system of the San Antonio Water Company, which serves approximately 5,000 acres. The canyon water, however, has been supplemented by a goodly supply from pumping plants. The Canyon Water Company uses the greater part of Pomona's share of canyon water, the Irrigation Company of Pomona and Del Monte Irrigating Company depending on water from wells. The following companies supply water to lands in this area:

At Pomona, Claremont, and Lordsburg:

Canyon Water Company, of Pomona.
Irrigation Company of Pomona.
Del Monte Irrigation Company.
Palomares Irrigation Company.
Kingsley Tract Water Company.
Currier Tract Water Company.
Orange Grove Tract Water Company.
Packard Water Company.
Mills Tract Water Company.
Old Baldy Water Company.
Mesa Land and Water Company.
La Verne Land and Water Company.
Live Oak Water Company.
Citrus Water Company.
Illinois Land and Water Company.
Richards Irrigation Company.
Indian Hill Water Company.
Claremont Coöperative Water Company.
Pomona Ranch Water Company.
Harrison Avenue Water Company.
Monte Vista Water Company.
Monte Vista Irrigation Company.
Mont Antonio Water Company.

At Ontario and Upland:

San Antonio Water Company.
Mountain View Water Company.
Ontario Water Company.
Canyon Ridge Water Company.
Upland Water Company.
Ranchers Mutual Water Company.

At Cucamonga:

- Cucamonga Water Company.
- Old Settlers Water Company.
- Hermosa Water Company.
- Iamosa Water Company.
- Sunset Water Company.

At Etiwanda:

- Etiwanda Water Company.
- Rochester Water Company.

At Chino:

- Chino Water Company.
- Southern California Colonization Company.

Most of the foregoing secure water from pumping plants, and about 400 pumping plants owned by individuals in addition to those of the water companies are operating. Water is conveyed by underground concrete pipe. The amount used in orchards varies, but averages about .8 acre-foot per acre for citrus trees and less for deciduous trees, 1 miner's inch flowing continuously through the irrigating season being sufficient for 8 acres of citrus orchard. The alfalfa growers on Chino ranch depend entirely on pumping plants and wells for water. The distributing systems for alfalfa are of underground concrete pipe while the method of applying water to the land is by detachable galvanized iron surface pipe. Ordinarily 6 crops of alfalfa are cut, the first as a rule being produced without irrigation by the moisture retained in the soil from the spring rains. Measurements of the amount of water used in irrigating alfalfa made in 1905 and 1908 show an application of 2.4 acre-feet per acre. The mean annual rainfall at Claremont for a period of 18 years is 16.95 inches. This rainfall, while high for an arid or semi-arid country, is poorly distributed, the greater part falling in the late winter and early spring. Canyon water has a capitalized value of $1,500 to $2,500 per miner's inch while pumped water is valued at $1,000 per miner's inch. Acre water rights in mutual companies pumping water are worth about $125 while those having some of the best established rights to canyon water are worth about $300 each.

The rights of most of the appropriators of canyon water have been determined through litigation although recently a suit was filed which involves both the rights to use surface and underground waters from San Antonio Canyon. This district has been unusually free from litigation over underground waters in the past, considering that there are so many pumping plants and wells.

It is remarkable that about 20,000 acres are irrigated with the surface and underground waters from a mountain watershed of only 40 square miles. The drainage basins of the streams in this division lies within the Angeles forest reserve, San Gabriel Mountains culminating in Mount San Antonio with an elevation of 12,000 feet above sea level.

Snow remains on the higher peaks throughout the late winter and spring, the last of it sometimes not disappearing until midsummer. The canyons are so precipitous that no sites of large capacity for storage reservoirs are to be found for the impounding of flood waters. One small dam has been constructed across Evy Canyon, a branch of San Antonio Canyon, by North Palomares Irrigation Company. Many small concrete reservoirs are in use throughout the valley in connection with pumping plants. These reservoirs are entirely artificial and merely act as regulators in the distribution of water. Brown's Flat, located in the San Gabriel Mountains west of San Antonio Canyon, has been investigated as a storage site but was not given further consideration on account of the high cost.

Effective work has been done in the spreading of storm waters below the mouth of San Antonio Canyon over the coarse gravels where they are absorbed and stored in the underground basins to be drawn on later by the pumps taking water from wells. In the absence of suitable storage sites this is the best means for conserving flood waters resulting from the melting of the snow in the spring at a time too early for direct use on the orchards. The maximum discharge of San Antonio Creek is estimated at 100,000 miner's inches or 2,000 second feet. Floods of this size do not occur every year. The average summer discharge for a 22-year period as shown by the measurements of water companies is as follows: July 820 miner's inches, August 738 miner's inches, and September 557 miner's inches. The other streams entering the valley are much smaller.

The underground waters of the citrus districts have been drawn on so heavily by pumping plants that is doubtful if new wells can be made that will not affect the supply from existing wells. On Chino ranch the water level has not been seriously affected by pumping and it is probable that many more wells can be made in this section without serious damage. Water which is absorbed along the base of the foothills above Upland, Cucamonga, and Etiwanda percolates in a general southerly direction. Water entering the gravels below San Antonio Canyon is in large part forced to move to the southwest by what is evidently an extension of San José hills now buried by alluvium. Wells drilled in the cienegas at Claremont and Pomona flow following periods of good rainfall but the water must be lifted in them from 50 to 100 feet during dry periods. Below these cienegas are wells in which water must be lifted from 100 to 400 feet. A vast water plane with slope toward the south much less than that of the surface appears to be south of Ontario. The pumping lift is about 100 feet at the northern border of Chino ranch. An artesian area which varies in size with wet and dry periods borders Chino Creek. It now occupies about 20 square miles. Many new pumping plants have been installed on wells in the eastern part of Chino ranch within the past few years and some single wells are producing 200 miner's inches. Wells near the foothills as a rule do not produce over 50 miner's inches.

It is probable that all of the alfalfa district can be irrigated from wells but it is doubtful if there can be any material increase in the citrus districts without an overdraft on the underground supply for these upper lands. Water is already used in these districts with as much economy as can reasonably be expected and it is doubtful if there will be any increase from a more economical use. Pomona Valley and Cucamonga Plains contain 131,448 acres of agricultural land, of which 44,823 acres are irrigated. The total mountain watershed contributing to this territory is 56.9 square miles, over which the precipitation is estimated at 20 to 40 inches annually.

All of the normal flow from San Antonio Canyon is used for the development of electric power before being used for irrigation. The plants of the Pacific Light and Power Company and the Ontario Power Company are located in the canyon. The water from these is returned to the creek above the diversion of the Pomona and Ontario water companies. A portion of Ontario's share is again used in the plant of the Ontario and San Antonio Heights Power Company before it is used for irrigation. The use of water for power is not in conflict with its use for other purposes.

SAN BERNARDINO VALLEY AND RIVERSIDE.

This area contains more irrigated land than any other within the coastal drainage of southern California. Although it lies in two counties, it is considered as one area on account of the common water supply. The supply is Santa Ana River and tributaries, in the San Bernardino Basin, above Colton. The principal tributaries are Lytle and Mill creeks, but Cajon Creek, Devil's and Waterman canyons, Twin, City, and Plunge creeks also discharge into the basin. Warm Creek rises from springs in the cienegas of the basin and flows into Santa Ana River. The Santa Ana has no other important tributaries until Rincon is reached, where Temescal wash and Chino Creek enter the river.

The agricultural lands may be divided into four main divisions. The country north of Jurupa Mountains and west of Lytle Creek, including Rialto, Bloomington, and Colton, contains 48,576 acres, of which 14,250 acres are irrigated. The central portion of the basin, between Lytle Creek and Santa Ana River, including San Bernardino and Highlands, contains 37,817 acres of good land, of which 13,862 acres are irrigated. The Redlands district, lying south of the Santa Ana River, has 21,830 acres of agricultural land, of which 16,080 acres are irrigated. Riverside Valley and Mesa contain 92,300 acres, and 35,800 acres are irrigated. The totals are: Agricultural land 200,523 acres, and irrigated land 79,992 acres.

In general, soils are sandy loams of different grades. The mesa soils of Riverside and Redlands are red and rather heavy, but they contain some sand. Adobe is found in some of the low areas in the San Bernardino Basin and along the river in the vicinity of Arlington. The washes of the Santa Ana River, Lytle and Cajon creeks occupy large areas and it is doubtful if much of this land will ever be reclaimed. Some gravelly soil is found along the base of the San Bernardino Mountains and north of Rialto. Soils near Wineville are very sandy. Alkali does not appear in quantities that would be damaging to plant life.

Farms are small where the land has been subdivided, the common size of an orchard being 10 acres. Alfalfa ranches contain from 80 to 160 acres. This area includes, however, several large properties, such as the Arlington Heights groves, under company ownership, 1,500 acres in extent, and several others of several hundred acres. A number of large tracts, usually Spanish grants, which have been acquired by land companies, are being subdivided and colonized. It is customary for the land and water companies to develop water for irrigation, organize subsidiary mutual water companies, and sell the land in small tracts, together with water rights in the mutual companies, to settlers. Tracts of this kind are in West Riverside, and at Fontana, near Rialto.

The value of a right to pumped water is $1,000 to $1,500 per miner's inch, and of gravity water, under company systems, with well-established rights, $2,000 to $3,000 per miner's inch.

Practically all of the upper lands of this area are devoted to citrus fruits. The mesa and higher valley lands have comparatively little frost and soils are medium as regards texture, being neither light nor extremely heavy. Riverside, Highgrove, Arlington, Redlands, Highlands, and Rialto are among the most important citrus districts of southern California.

Highlands and Rialto grow lemons, as well as oranges. Colton, Bloomington, and West Riverside districts are also adapted to citrus fruits. Olives have given excellent results near Bloomington. Alfalfa is grown in the basin below San Bernardino, Highlands, and in Riverside Valley. The section about Wineville is in vineyard. Some deciduous fruit orchards are scattered throughout the territory, where the land is not adapted to citrus culture. Large areas of grain occupy the slopes of the surrounding hills and some of the valley land about San Bernardino and north of Jurupa Mountains where water for irrigation has not yet been provided.

All of the normal surface waters of the streams entering San Bernardino Valley are diverted directly by water companies. Most of the streams discharge throughout the summer. Water absorbed by the gravels below the stream canyons has been collected in the bottom of the basin and a high level of underground water is maintained by Bunker Hill and its extensions, now buried by alluvium. An artesian area, which was originally about 32 square miles, is located in the basin. This section is one of the most valuable for producing underground water thus far found in southern California. Heavy drafts have been made on the underground waters for the past twenty years, and during the dry period ending about 1904 there was a decline in the water level, measuring from 10 to 30 feet in the various wells. Years of better rainfall followed this period, and for a time after 1906 the level was maintained. The draft on the supply, however, increased with new wells, the most of which were both larger in diameter and deeper than the older wells, and within the last two or three years there has been an additional slight decline in many wells. The artesian area occupied about 13 square miles in 1904.[1] Some of the new wells are from 800 to 1,000 feet in depth, and some along Lytle Creek and near San Bernardino are claimed to produce between 100 and 200 miner's inches. Many wells outside of the artesian area are pumped, as are some of them that flow slightly. The springs and flowing and pumped wells of the San Bernardino Basin have furnished a large portion of the water for irrigation for the Riverside citrus district during the dry season when water is most needed. Many pumps are also operating on wells in the Riverside Valley. The draft on the underground water in this locality is in general a later development than that in the upper basin. All of the surface waters of the Santa Ana are first taken out at the mountain canyon for use at Redlands and Highlands. The subterranean flow is brought to the surface near Colton and water is here diverted by the Riverside canals. They are again brought to the surface above the Riverside Narrows and the water level is at or near the surface at many points in the lower Riverside Valley. All unused waters of the upper basins must finally enter the canyon below Rincon.

Nearly all water companies securing water from Santa Ana River are mutual organizations. The Bear Valley Mutual Water Company takes water from Santa Ana Canyon to be furnished several mutual companies of the land owners in the various districts of Redlands and Highlands. Among those supplied are:

Crafton Water Company,
Redlands Water Company,
Redlands Heights Water Company,
East Redlands Water Company,
West Redlands Water Company,
Mentone Irrigation Company,
Lugonia Water Company,
Gladysta Mutual Water Company,
Barton Pipe Line and Water Company,
Bear Valley Extension Water and Pipe Line Company,

with lands on the south side of the river; and

North Fork Water Company,
West Highlands Water Company,
Cram-Van Leuvan Water Company,
Green Spot Pipe Line Company,

with lands on the north side of the river.

Formerly these mutual companies purchased water from the Bear Valley Irrigation Company, a corporation which failed financially and went into the hands of a receiver. Its property was acquired by the Bear Valley Mutual Water Company, organized by the water users.

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[1] U. S. Geol. Survey, Water Supply and Irrig. Paper No. 142.

Other Redlands water companies are:

Mill Creek or Old Town Water Users,
East Barton Water Company,
Jewel Water Company,
Gladysta Well and Water Company,
South Mountain Water Company.

Some of the Redlands companies are interrelated by one company owning stock in another and by exchanges of water and rights. For example, the Crafton Water Company exchanges water from the Santa Ana with the Old Town Water Users, for water from Mill Creek.

Companies with lands near San Bernardino are:

Del Rosa Water Company,
West Twin Creek Water Company,
City Creek Water Company,
McKenzie Ditch Company,
Stout Ditch Company,
Rabel Dam Ditch,
Hawes Ditch.

The Del Rosa Company takes water from East Twin Creek and the McKenzie and Stout ditches from Warm Creek.

The following companies receive water from wells and pumping plants in the vicinity of San Bernardino and Colton:

Rancheria Water Company,
Terrace Water Company,
Rosedale Water Company,
North Colton Water Company,
Linda Vista Water Company,
Vista Grande Water Company,
Jumal Water Company,
Merryfield Water Company.

Lands at Rialto and Fontana are supplied by the Lytle Creek Water and Improvement Company, Fontana Water Company, and Mt. Vernon Water Company, with water from Lytle Creek and from pumping plants. Lands near Bloomington are supplied by the Citizens Land and Water Company.

The Riverside Water Company supplies 8,658 acres of Riverside Valley lands. It is mutual in some respects. Water is secured from Santa Ana River, Warm Creek, and flowing wells near Colton, with a supplemental supply during the dry season from pumping plants in the river. The Gage Canal Company and its subsidiary company, the East Riverside Water Company, are mutual companies, serving the upper mesa or citrus lands, including East Riverside and Arlington Heights. Water for this canal is received from Santa Ana River and flowing and pumped wells above Colton. The Riverside-Highlands Water Company is strictly a mutual organization, serving the citrus orchards of the terrace south of Colton. Water is secured from flowing wells in the Colton basin and from pumping plants along Lytle Creek, it being lifted to the mesa by large pumping engines. The Jurupa Ditch Company secures water from the Santa Ana River, and the Alvitrez Ditch Company from Spring Brook. The Rivino Water Company secures water from pumping plants.

The following mutual water companies, some of which are related as regards stock ownership, are entitled to water from the river, or have wells and pumping plants, but have water carried by the canal of the North Riverside and Jurupa Canal Company:

Meeks and Daley Water Company,
West Riverside 350 Inch Water Company,
La Sierra Water Company,
Sunny Slope Land Company,
Alta Mesa Water Company,
Union Water Company,
Salazar Water Company.

The distribution systems of water companies consist of cement or concrete lined canals, and cement and steel pipe. The Bear Valley Mutual Water Company used some redwood stave pipe for many years in Santa Ana Canyon, above the cement-lined canals, but the wood pipe is now being replaced with concrete. The Gage canal, 20 miles in length, is lined throughout with cement plaster, three fourths of an inch thick. The greater part of the Riverside Water Company's canals are lined. Steel pipe has been used for conduits under pressure; also for lateral lines under some of the systems.

Orchard irrigation systems are of cement concrete head flumes or underground pipe, with stands. Alfalfa is irrigated with detachable galvanized iron surface pipe and by flooding from open unlined field ditches and field borders. Power for pumping is usually furnished by electric motors or gasoline engines.

The duty of water for citrus fruits, stated in terms of depth on the land, varies in general from 1 to 2 feet; the higher figure being for systems receiving all or part of the water by gravity and with winter irrigation, and the lower figure for orchards where all of the water is pumped from wells and without much winter irrigation. The duty may also be stated as 1 miner's inch for 5 acres of citrus fruits at Riverside and Redlands. Under the Fontana system at Rialto, 1 miner's inch serves 7 acres of citrus orchard. A miner's inch is sufficient for 2 to 3 acres of alfalfa in San Bernardino basin and Riverside Valley, and the quantity of water applied to alfalfa is from 2 to 5 acre-feet per acre. Water is delivered to orchards by rotation under a thirty or forty-five day schedule. The rainfall at San Bernardino is 15.92 inches, at Redlands 14.94 inches, and at Riverside 10.46 inches, most of it occurring in late winter and in spring.

The principal areas where drainage is needed are along the Santa Ana River near Arlington and in the upper basin. Lower Riverside Valley lands have been damaged to some extent by return seepage water from the higher lands. Preparations are being made to drain some of this land.

Some of the older ditches, such as those at Redlands, have been given fixed amounts of water from the streams by the courts. In general, rights have been adjudicated frequently, yet new cases of litigation are continually coming up, due to extended operations of the older companies, and to new appropriators entering the field. Companies have been desirous of owning riparian land, to strengthen their rights. Many companies and individuals claim riparian, appropriation, and prescriptive rights, appropriation being used in the sense of actually applying the water, and prescription with reference to the Statutes of Limitations. Redlands companies have been involved in much litigation in connection with the failure of the Bear Valley Irrigation Company, as well as over water rights in Santa Ana River. Several irrigation districts were organized under the State law in the eighties and all failed. Some of the litigation coincident with these failures, as in the case of the Rialto and Grapeland districts, was yet in the courts a few years ago. The courts have been called upon to settle questions of right to use water from the river, between the Orange County and the Riverside County canal companies. One of these important cases was compromised and withdrawn from trial. Questions have also arisen between the Riverside and San Bernardino County water users. Recently suit was brought by Riverside to restrain the Bear Valley Mutual Water Company from storing additional water in their new reservoir in the mountains. Litigation over rights to use underground waters and to convey underground waters to distant lands has followed as a result of the Riverside companies securing water from San Bernardino basin. The governing principles of late decisions relating to the use of underground waters were first laid down by the Supreme Court of the State, in *Katz* vs. *Walkinshaw*. A later decision in *Barton* vs. *Riverside Water Company* is more comprehensive. These cases have general application, inasmuch as the same questions may arise in any locality where there are disputes over rights to use underground water.

The Bear Valley Mutual Water Company completed a multiple arch concrete dam, about 85 feet high, costing about $300,000, in 1911, to replace the old Bear Valley dam. The new structure increases the capacity of the reservoir from 26,464 acre-feet to 65,000 acre-feet. Another reservoir site is located on the South Fork of the Santa Ana River. It is reported to have a capacity of 35,000 acre-feet. About 8,000 acres is being added to the citrus district of Rialto by further development of water in Lytle Creek Canyon and by boring of wells and installation of pumping plants by the Fontana Development Company. Large areas of land are being reclaimed on La Sierra Heights and in the West Riverside district by companies and individuals. The decision of the court in a late case brought by the Orange County water companies to stop the pumping of underground water from new wells was decided in behalf of the defendants. This will probably encourage pumping in the upper basins. An abundance of underground water is available, but it is difficult to estimate the amount that can be pumped without reducing the supply for Orange County. The discharge of the river at Riverside narrows and at Rincon has held up well during the dry season in late years, notwithstanding the increased diversions in the upper basins, and it appears that return waters from irrigated land have in a measure the effect of regulating the summer flow of the river.

The Gage Canal Company is now constructing a dam across Mockingbird Canyon to store flood waters.

Storm waters from Santa Ana Canyon and Mill Creek are spread over the gravels north of Redlands with good effect, by the Riverside and Orange counties water companies. From 10,000 to 12,000 miner's inches for about 100 days are diverted from the streams and put into the gravels when the snow is melting in the mountains. At the request of the association conducting this work, the Government has reserved 1,100 acres of land below Santa Ana Canyon for the use in storing flood waters. The work has been very beneficial in maintaining a high level of ground water in the San Bernardino basin, and in increasing the supply to users below. The president of the association has estimated that the supply to the Riverside canals alone amounted to 1,000 miner's inches last year. The level of the underground water was 6 feet higher than in previous years. Flood waters are also spread over gravels at the mouth of Lytle Creek Canyon, by the Fontana Development Company. The method employed here has varied somewhat from that employed in other localities of southern California. Water diverted from the stream channel is conducted to vertical shafts excavated in the gravel of the débris fan to depths of 50 feet or more.

The mean annual discharge of the Santa River near Mentone, from 1896 to 1910, was 59,200 acre-feet.[1] The river has 483 square miles of mountain watershed above Colton. It is estimated that the area irrigated in this territory may be increased 10,000 acres from further development of underground waters, and an additional 10,000 acres by storage in the mountains. It would be possible to deliver water near San Bernardino from Arrowhead reservoir, located in the Mojave River drainage, by tunnel through the San Bernardino Range. This disposition of the water has been considered, but the indications at present are that the stored water will be used on the northern side of the mountains. This reservoir will furnish sufficient water for the irrigation of about 15,000 acres of orchard.

Electrical power is developed in Santa Ana, Mill, and Lytle canyons. Power development is all above diversions for irrigation, and the two uses do not conflict. Power is also developed by the Riverside Water Company and at a plant between Arlington and Corona.

YUCAIPA VALLEY AND SAN GORGONIO PASS.

San Gorgonio Pass is between the San Bernardino and San Jacinto mountains and connects San Bernardino Valley with Coachella Desert. The elevation of the divide is 2,500 feet. Yucaipa Valley is at the base of Mt. San Gorgonio and has a mean elevation about the same as the pass. It is connected to the pass near Beaumont and is separated from Redlands by Crafton Hills. The pass includes 24,400 acres of tillable land, sloping to the west, and 29,200 acres sloping to the east. The area irrigated is 5,230 acres, the greater part being near Beaumont and Banning. Yucaipa Valley contains 18,400 acres, of which 2,500 acres are irrigated.

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[1] U. S. Geol. Survey, Water Supply Paper No. 300.

The water supply of San Gorgonio Pass is from San Gorgonio, Little San Gorgonio, Noble, Potrero, and Millard creeks, all from San Bernardino Mountains. Little San Gorgonio and Noble creeks drain towards San Timoteo Canyon, while the others drain eastward to the Whitewater. The northern slope of the San Jacinto Mountains is more precipitous than the southern slope of the San Bernardino Mountains, and there are no streams from the south that furnish any material amount of water for irrigation. The streams are torrential in character, although most of them discharge some water throughout the year. The normal flow, if not diverted for irrigation, would all be absorbed by the gravels. The gravelly channels of the washes indicate that flood waters sometimes cross the land, the wash of San Gorgonio River especially being evident. The eastern end of the pass drains to Coachella Desert and Valley and Salton Basin by way of Whitewater River. The western drains through San Timoteo Canyon to San Bernardino Valley.

The streams entering Yucaipa Valley are Potato, Water, and Wildwood canyons. The valley is drained by Yucaipa Creek to San Timoteo Canyon. The valley and pass are visited with too much frost for the growing of citrus fruits, but they are adapted to apples, pears, cherries, figs, and other deciduous fruits, while almonds have been grown successfully. The summers are cool, owing to the elevation and the proximity of snow-capped mountains. There is a marked change in temperature at the eastern end of the pass, where it partakes of conditions prevailing on Colorado Desert. The difference gives rise to winds which rush through the pass from the coast region to replace the heated atmosphere of the desert. The winds become more pronounced toward the east, where they render this end of the pass, together with the desert beyond, almost useless agriculturally.

Soils in the pass range from sandy loam to gravel. Some of the unimproved land near Cabezon is held in large tracts, but most of the improved land is in tracts of about 20 acres.

The upper or bench lands of Yucaipa Valley are of sandy loam, sloping 200 feet per mile to the west. The lower, and more properly the valley lands, are loamy. Ground water is brought to the surface in the lower area and good wells are secured by boring to comparatively shallow depths.

Apples are grown in Potato Canyon and miscellaneous crops in lower Yucaipa Valley, but the major portion of the valley has produced nothing but grain for many years. The South Mountain Water Company of Redlands developed water in canyons above the valley, and after using the water for five years, suit was brought by the Yucaipa Land and Water Company, owners of the Dunlap ranch, to stop the taking of water to Redlands. The court limited the South Mountain Company to fifty-two and one half miner's inches. In 1910 the Redlands and Yucaipa Land Company acquired the property of the Yucaipa Land and Water Company, including the Dunlap ranch. The South Mountain Company now receives the amount awarded by the court from the system of the Redlands and Yucaipa Company and from wells in the lower valley in exchange for rights in the mountain canyons. The Redlands and Yucaipa Company is increasing its water supply by further developments in the canyons with tunnels and wells, and has constructed a small storage reservoir commanding their distributing system of underground pipe. The water supply, if all conserved, is claimed to be sufficient for 11,000 acres on the basis of 1 miner's inch for 10 acres.

The Beaumont Land and Water Company supplies 1,900 acres with water from Edgar and Noble canyons, 2 artesian wells, and 3 pumped wells. The total maximum supply is approximately 450 miner's inches. Water from the canyons is conveyed in steel pipe, there being a total of 50 miles of pipe including the distributing system. The steep grade of the main conduit allows 65 electrical horsepower to be generated for pumping water from wells. The Banning Water Company takes water from San Gorgonio Creek by means of a small concrete dam and 8 miles of ditch, lined with rubble masonry, and with a capacity of 900 miner's inches. The main conduit leads into 2 small concrete-lined reservoirs situated above a distributing system of steel pipe. The Malone Land and Water Company is at present irrigating 180 acres near Cabezon from Millard Canyon. Water rights are based on the long-continued use of water and on riparian land.

The Beaumont Land and Water Company allows 1 miner's inch for 10 acres. The land irrigated is principally in young deciduous trees. The practice under the Banning system is to use 1 miner's inch for 6 to 7 acres of deciduous orchard.

The Consolidated Reservoir and Power Company is at present constructing a ditch to convey water from Whitewater River to lands near Banning, a distance of 6 miles. The water will be diverted at an elevation of about 7,000 feet and opportunity will be given to develop a large amount of electric power before the water is used for irrigation. The conduit will have a capacity of 900 miner's inches. In addition to this conduit, a storage dam is to be constructed in Whitewater Canyon. As the discharge of Whitewater River is all absorbed in its attempt to cross Coachella Desert, and as undoubtedly this stream is the source of the underground water in Coachella Valley, diversions from Whitewater Canyon for lands in San Gorgonio Pass will probably affect the water supply of Coachella Valley. Irrigators at Coachella are protesting against the contemplated diversion by the Consolidated Reservoir and Power Company.

Of the watershed draining directly into San Gorgonio Pass that going westward is 50 square miles, practically all of it being on the north side. That drainage eastward is 145 square miles, that on the north side, 82 square miles, being the most valuable for water supply. The rainfall at Beaumont and Banning is about 16 inches and that in the mountains is much greater.

Storm waters from San Gorgonio Creek have been spread over the gravels of the wash below the canyon with good effect. The average flow of this stream is reported to be 550 miner's inches. It is the largest stream entering San Gorgonio Pass.

It is hardly probable that more than one fourth of the land in San Gorgonio Pass will be irrigated. Some increase should take place from further draft on the underground waters. Most of the wells now existing are located along the north side of the pass near Beaumont and Banning. Some of these flow and others must be pumped. In a new well drilled by the Beaumont Land and Water Company, the water began to flow on reaching a depth of 72 feet below the surface. Another well of this company in Edgar Canyon discharges 55 miner's inches, the water being lifted over 200 feet. The area to be irrigated in Yucaipa Valley is 11,000 acres.

SAN JACINTO VALLEY AND CORONA.

San Jacinto River drains the southwestern slope of San Jacinto Mountains and after crossing a broad valley somewhat broken by hills, empties into Lake Elsinore. In periods of high precipitation the lake overflows by way of Temescal wash to Santa Ana River near Corona. The chief areas of agricultural land in this drainage are San Jacinto Valley proper, including the territory around San Jacinto, Hemet, Winchester, Lakeview, Perris, and Moreno, the mountain valleys south of the main basin, the valley adjacent to Lake Elsinore, the rolling land of the El Sobrante ranch, and the Corona citrus district. San Jacinto Valley is higher than Riverside and is separated from it by hills. The areas of agricultural land and irrigated land are: San Jacinto Valley, agricultural 249,700 acres, irrigated 23,112 acres; Corona, agricultural 18,500 acres, irrigated 6,750 acres.

Most of the soils of San Jacinto Valley are loams, containing some sand and gravel in places. Some adobe is found and some alkali in low places, such as near Mystic Lake northeast of Lakeview. Most of the mesa soil is reddish in color and resembles the lands of Riverside and Redlands. Hardpan is present in some localities. The El Sobrante grant contains 21,000 acres of good land. The Corona mesa is sandy loam adapted to citrus culture and sloping to the north at the unusually high rate of 300 feet per mile. Most of San Jacinto Valley has been producing grain for many years. Orchards are from 5 to 20 acres in extent; alfalfa ranches from 20 to 200 acres; and grain ranches sometimes contain from several hundred to several thousand acres.

Water for irrigation is furnished users at San Jacinto and Hemet at fixed rates, by public service companies. The Citizens Water Company, which recently acquired the property of the old San Jacinto Water Company, supplies 2,700 acres of citrus and deciduous fruit orchard near San Jacinto, and the Lake Hemet Water Company, and Fairview Land and Water Company supply 5,300 acres of orchard land near Hemet. The Hemet system receives water from the Lake Hemet dam on the South Fork of the San Jacinto River. This structure is 125 feet high, of masonry, and the reservoir has a capacity of 8,000 acre-feet. The Citizens Water Company secures water from a perforated collecting pipe or gallery in the mouth of San Jacinto Canyon, and from wells. The duty of water under the Citizens and Hemet systems is 1 miner's inch for 5 acres. Water is conveyed through cement pipes and cement-lined ditches.

The rate under the Citizens company is $3 per acre per year and under the Lake Hemet Water Company $2 per acre per year. The rate of the Lake Hemet Company has not paid operating expenses and it will probably be raised.

The Moreno Valley Water Company supplies water from wells to 400 acres near Moreno and water is conveyed from Mill Creek near Redlands to 450 acres near Allesandro through Allesandro pipe line. Aside from these water companies there is much irrigation from private plants scattered throughout the valley, although the greater number are near San Jacinto and Elsinore. Alfalfa is the principal crop irrigated from pumping plants. Olives and English walnuts have been grown near Elsinore and Wildomar in late years. The olive is the only unirrigated crop aside from grain.

The companies at Corona are mutual organizations. The Temescal Water Company furnishes water for 4,682 acres of citrus lands. The water is secured from branches of Temescal Canyon, twelve pumped wells in Perris Valley, and one flowing well. Electric power is generated at a steam power plant near Ethenac and transmitted to the pumping stations. Water is conveyed by two pipe lines by way of Temescal wash to Corona. One miner's inch has a value of $1,000 and serves 5 acres under the Temescal system. The cost of water to the user is $24 per acre per year. Water is delivered according to a thirty day rotation.

Other companies near Corona are the Foothill Lemon Company and Corona Pumping Company, which secure water from wells. The latter is for alfalfa lands.

The Cajalco Water Company furnishes water for the irrigation of lands on El Sobrante ranch. Water is secured from Cajalco or Hoag's Canyon.

Much of the irrigation of alfalfa in San Jacinto is from pumping plants and artesian wells. An artesian area, originally 14 square miles, stretches northwestward from San Jacinto. The area has contracted at its upper end owing to the drafts made on the basin by wells and to the dry period ending about 1906, but many wells still flow. Where the flow is light, the wells are pumped. The older wells were usually from 100 to 300 feet in depth, but during the last few years some deeper wells have been drilled and these yield good flows. The deepest is 700 feet, which is reported to deliver 65 miner's inches. The artesian basin owes its existence to Lakeview Mountains which intercept the underground water in its passage westward from San Jacinto Canyon. In other parts of the valley underground water is usually found at depths of 10 to 50 feet. Water must be lifted about 10 feet near Perris, while originally it stood practically at the surface of the ground. In other wells about 300 feet deep the pumping lift was 65 feet, in 1912. Water can be secured at depths of about 30 feet, at Moreno, also south of Elsinore. Many wells deliver 100 miner's inches each. Wells near Lakeview are about 200 feet in depth but do not stand much pumping. Underground water has not been found in Diamond Valley.

Several thousand acres of land along San Jacinto River near Lakeview and around Mystic Lake are subject to overflow during the winter and would be improved by drainage. Some alkali is present in these lands, but they have been used for sugar beets and pasture.

The Perris, Allesandro, and Pleasant Valley irrigation districts were organized soon after the passage of the State irrigation district law, but all failed, through insufficient water supply, mismanagement of funds, or other causes. Some of the questions relating to the validity of the bond issues of these districts are yet in the courts. The Lake Hemet Water Company claims all of the flow of the South Fork of San Jacinto River at the Hemet reservoir. The San Jacinto Water Company, which has now been superseded by the Citizens Water Company, purchased the rights of the old Pleasant Valley Irrigation District. The taking of water from Perris Valley for use at Corona led to litigation, in which the Temescal Water Company was limited to 850 miner's inches from this source, by the court.

The Lake Hemet Water Company may increase its acreage to 8,000 acres, provided additional water can be secured from wells. The Citizens Water Company has lately increased its water supply by the drilling of new wells near San Jacinto, and are now in a position to irrigate 4,000 acres, or an increase of 1,300 acres over the present area. A large increase in the irrigated area of San Jacinto Valley may be expected from the development of underground water. Many new wells are being bored and pumping plants are installed every year.

The Superior Land and Water Company expects to be able to deliver about 350 miner's inches from wells and pumping plants near Lake Elsinore for use on a tract of 2,000 acres of land. In 1912 underground water was developed in the cienega two and a half miles above San Jacinto. This cienega has been drawn upon by the collecting gallery of the Citizens Water Company, but its underground waters were not developed by wells until within the past year. It gives promise of yielding a large amount of water which may be used advantageously in the upper portion of the valley. The Ramona Power Company made filings in 1911 on the north fork of the river, Strawberry Creek, and Massacre Canyon. It is proposed to construct a storage reservoir on Strawberry Creek, where a suitable site has been located, and after utilizing the water for the generation of electric power under an 1,800 foot head, convey it to the lands in San Jacinto Valley.

As all of the discharge of the river and its tributaries during the irrigation season is claimed and used, only flood water will be available for storage. Lake Hemet has a drainage area of 50 square miles on the south fork and the capacity of the reservoir is 750 acre-feet and sufficient for the storage of the entire run-off in a normal year. Some years the water overflows the dam. The entire mountain watershed of the river is approximately 700 square miles and that portion drained by the north fork and Strawberry Creek is a much more valuable watershed than that of the south fork.

Water for the rolling land on Rancho El Sobrante de San Jacinto must be secured by pumping from wells. This property has been subdivided and is being colonized. The irrigated area at Corona is being extended by companies pumping water. The Foothill Lemon Company will supply 820 acres.

Lake Elsinore, into which San Jacinto River floods are discharged, has an area of 7 square miles. The waters of the lake, like most inland bodies of water, are too saline for irrigation. The loss of water is equivalent to about 5 feet in depth annually.

Plans have been proposed for the utilization of Lake Elsinore as a storage reservoir and the waters of the lake have been filed upon. Any successful plan involves the reduction of the percentage of salt in the water and it is not certain that this is practicable.

ORANGE COUNTY COASTAL PLAIN AND MESA.

This area includes all of Orange County excepting La Habra which is topographically connected with the Whittier district of Los Angeles County. The largest agricultural area in Orange County is the coastal plain, which is a continuation of the Los Angeles coastal plain toward the southeast. The land has been formed by the alluvium from Santa Ana and San Gabriel rivers, together with marine deposits. The mesa in the southern part of the county differs in character from the coastal plain and valley below Rincon. Other agricultural areas are along San Juan and Trabuco creeks near the San Diego County line. Orange County, though small, has comparatively little waste land. It has a total of 460,000 acres and of this 204,500 acres is classed as agricultural. The main district may be divided into three parts, one of 44,500 acres including valley above the coastal plain, bench lands bordering the hills, and the upper part of the coastal plain itself; a second comprising

80,000 acres of lower land principally in the artesian area; and a third 80,000 acres of mesa land. The upper area is devoted chiefly to the growing of citrus fruits although many English walnuts and some deciduous fruits are produced. The lower coastal plain contains large areas of sugar beets and celery, onions, potatoes, peanuts, alfalfa, corn; some deciduous fruits, and berries are also grown. The main crop on the mesa land is lima beans. Formerly dry-farmed grain was the principal crop. The hills north of Santa Ana Valley constitute one of the important oil-producing fields of California.

Much sandy and silt loam mixed with gravel is in evidence on both sides of Santiago Creek about Santa Ana, Orange, El Modena, Villa Park, and Tustin.[1] A large portion of the plain west of the river and around Anaheim and Garden Grove is classed as sandy loam and sandy adobe. These soils also occur on the mesa southeast of Tustin. South of Santa Ana and Tustin is an area of black adobe. Sand and sandy adobe are found back of Newport Bay and peat occupies limited areas near the ocean. Some of the black adobe soils south of Santa Ana and Tustin and in the marshes southwest of Fairview contain over 3 per cent of alkali. Small areas south of Anaheim and east of the river contain salts in amounts varying from .6 per cent to 3 per cent. The greater portion of the county does not have salts in excess of .2 per cent.

As in other parts of southern California, practically all valley land in this county was originally in Spanish grants. One of these now, the Irvine ranch, contains 109,000 acres and occupies the mesa south of the coastal plain. Holdings in the orchard district average about 10 acres while in the low lands they vary from 10 to 160 acres, 40 acres being common.

Orange County has the Valencia orange and the English walnut among orchard products. All crops in Orange county are irrigated excepting grain and beets. Sugar beets are not irrigated with regularity and grapes are irrigated in dry years only. At one time there was a large area in vineyards but this has been gradually reduced until very few acres are now devoted to that industry. Rotation of crops is much practiced below Anaheim and this often results in a change of the use of water from one tract of land to another from year to year. Some land owners who formerly depended upon shares in water companies have now disposed of their stock and depend upon pumping plants.

The citrus district of Orange County is furnished water by five irrigation systems. The surface water of the Santa Ana is divided equally between the Santa Ana Valley Irrigation Company and the Anaheim Union Water Company at a joint division weir in Bedrock Canyon just below the Riverside-Orange county line. The Anaheim Union canal leads from this weir along the base of the northern hills and covers 8,100 acres of land on the northwest side of the river about Anaheim, Fullerton, and Placentia. The water going to the Santa Ana Valley

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[1] U. S. Dept. Agr., Bureau of Soils, Soil Survey of the Santa Ana Area, Cal.

Irrigation Company follows the river channel for a distance below the division weir before being diverted into the canal. This canal is forced to follow close to the river channel until it has passed the point of hills at Olive. From here laterals branch southward covering 17,200 acres about Orange and Santa Ana, nearly all in citrus and walnut orchards. Both canals are cemented in large part. In late years the flow of both has been augmented by pumping plants taking water from wells near Horseshoe Bend, several hundred miner's inches being developed by each company in this way. The Anaheim Union Water Company secures additional water by pumping wells between Fullerton and Placentia. The Yorba reservoir is used in connection with this company's canal for the storage of surplus water not needed directly for irrigation. This reservoir has not been as serviceable as was anticipated, partially on account of a large loss by seepage, but it is probable that the basin will be lined with cement. The Santa Ana Valley Irrigation Company also has a distributing reservoir on the lines of its canal near Olive which has given good service as a regulator to the distributing system. These two companies use all of the normal flow of Santa Ana River and there are no diversions below their canals. It has been proposed to construct a submerged dam across the river at Sculley's Point as a permanent joint heading for the canals in an endeavor to secure the subsurface flow of the river more completely than is now done. The present weir of the companies is often destroyed or damaged by heavy floods in the winter time and must be reconstructed or repaired at the beginning of each irrigation season. Both companies are mutual organizations, the stock being made appurtenant to the land by the company by-laws. Distributing laterals under these companies are usually small cement-lined ditches. The waters of Santiago Creek, the chief tributary of the Santa Ana, are also divided equally between two coöperative water companies. The Serrano Water Company serves 1,050 acres on the north side near Villa Park and the John T. Carpenter Water Company supplies 750 acres on the south side near El Modena. A submerged dam which is one of the few that intercept all underflow was constructed across Santiago Creek at Point of Rocks jointly by the Serrano and Carpenter water companies. This enables most of the subsurface flow, as well as the surface flow, to be diverted. The water is carried by pipe line to a division box from which point equal parts go to the companies. The only other ditch receiving water from the river or its tributaries is the Yorba ditch which irrigated 627 acres in Santa Ana Canyon. This ditch has the oldest right to water from the river in the county. It is situated below the Anaheim Union Water Company's canal and originally diverted water directly from the river but now receives its supply through the Anaheim Union canal.

The other water companies in this part of the county are small organizations pumping water from wells. The lower part of the coastal plain depends on the underground water for irrigation. Several hundred pumping plants and flowing wells are drawing on the underground supply. The artesian area within the county at one time covered 38 square miles. In general there has been a gradual reduction in the water level during the past fifteen years and in some wells the water is 20 feet lower than formerly. This reduction carries with it a contraction in the artesian area along its upper edge. Here many wells have ceased to flow and must now be pumped while the discharge in some of the lower shallow wells has been diminished. The lowering of the water level has, however, been slight the past four or five years. While shallow wells have a diminished output, deeper wells reaching to lower artesian strata are producing large flows of water. The underground water no doubt comes chiefly from Santa Ana River. That underlying the northwestern portion of the county may come in part from San Gabriel River. The lessened decline since 1906 is due to the heavy precipitation of the late period with increased discharge of Santa Ana and San Gabriel rivers. A new well of the Holly Sugar Company near Huntington Beach reaches a depth of 521 feet and is one of the deepest in Orange County. It produces a good artesian flow. Single wells in Newport produce 75 miner's inches. The majority of the wells are from 150 to 300 feet deep.

Most of the land near the coast required drainage before it was suitable for cultivation. Four drainage districts under the State law have been organized and three of these already have systems in operation. The Bolsa district drains 2,400 acres near Smeltzer and Huntington Beach. Much of this land is peat and now produces the finest quality of celery. The crop for the past year brought the growers in the association $398,155. The Talbert drainage district covers 10,000 acres and the Delhi district 5,000 acres. The Newport district has been organized and will drain 3,000 acres. The section about Alamitos also needs drainage in order that the best results may be secured agriculturally and it is probable that a system will be constructed in due time. Sugar beets constitute the main crop on the low, moist lands and beet sugar factories are located at Alamitos, Anaheim, Santa Ana, and Huntington Beach. Farms are tile drained to connect with the main drainage ditches. In addition to the drainage districts, the Newbert Protection District has been organized for the protection of 1,800 acres of land along the lower Santa Ana by confining the flood waters of the river to the main channel by levees. The large floods of the rainy season, unless controlled, spread over a large area of land and cause damage to property. Some of the alkali lands near the coast have been reclaimed by leaching the salts by flooding the surface in connection with tile drainage.

Water rights in Orange County have been fairly well settled as among the appropriators in the county itself. Litigation was in progress during the early period of the organization of the Anaheim and Santa

Ana companies which continued for a number of years and cost thousands of dollars. The disputes were finally settled by agreement providing for the equal division of water as now practiced. The respective rights of the Serrano and Carpenter water companies to use water from Santiago Creek were established by a decision of the superior court rendered in 1896. In late years trouble arose between these companies and the Irvine ranch owners over the use of water from the creek but a compromise was effected by which the two water companies which had long appropriated and used the water were to have a maximum of 600 miner's inches during five months of the irrigating season and 60 miner's inches for the remainder of the year divided equally between them, and the Irvine ranch was to have the surplus. This leaves the Irvine ranch to depend largely on the winter flood waters and as there is no storage the ranch is not fortunate in having a good water supply for irrigation. About 200 acres are, however, irrigated. The Serrano and Carpenter water companies have for years spread flood waters over the gravels in Santiago Canyon above their joint submerged dam with the result that the subsurface flow reaching the dam is regulated and increased in the dry season, whereas without such spreading the water would run to the sea unused. A reservoir site of about 35 acres in area is in Fremont Canyon, a tributary of Santiago Creek.

The duty of water under the Orange County companies varies from 1 miner's inch for 5 to 10 acres, more water being used on citrus than on deciduous and walnut orchards. Under pumping plants and wells the irrigation is more irregular and as a rule there are a less number of irrigations where the water is pumped than under the gravity systems.

A suit was brought to restrain the pumping of water along the river above Corona, the Orange County companies claiming that the subterranean flow of the river was being drawn upon and that this directly reduced the supply reaching their canals. The court held that the water drawn from the wells was percolating water which saturated lands in the upper basin and that it was not directly connected with the stream and the taking of this water away for use on non-riparian lands was not forbidden.

All of the discharge of Santa Ana River during the irrigating season is diverted and used. All water entering the San Bernardino basin from Santa Ana Canyon is diverted for use in San Bernardino and Riverside counties and some water is pumped in this basin to supplement the flow of the canals. The winter floods store a large quantity of water in the gravels of this upper basin and the river has a large underflow which is well regulated through the summer. The underground water is brought to the surface at several points along the river's course, one being in the pass below Rincon. The underground water receives additions from other streams, such as Temescal Wash and Chino Creek, discharging into the large basin above Rincon. Approximately one half of the supply of the river is diverted in the upper basin near Colton. In late years the summer flow in the lower river has held up better than in former years and this indicates that return seepage waters from irrigated lands in the upper basins have the effect of regulating the flow on the lower part of the stream. The Bear Valley Mutual Water Company of Redlands stores 40,600 acre-feet in their reservoir in San Bernardino Mountains. The underground water level in San Bernardino basin was 5 feet higher in 1911 than in the previous year. The run-off of Santa Ana River depends more on the rainfall in San Bernardino Mountains than on any other watershed.

Miscellaneous measurements of the Santa Ana at Rincon from 1898 to 1906 show a mean discharge of 118 cubic feet per second.[1] It is estimated that fully this amount is being used in Orange County by the canals taking water directly from the river and by the pumping plants and artesian wells. San Juan and Trabuco creeks have a combined annual discharge of from 5,000 to 6,000 acre-feet. This is all used by the Trabuco and Capistrano water companies. No storage sites are reported on these streams.

It is probable that the area irrigated in the county might be increased a comparatively small per cent of the total by a more economical use of water and through greater precaution in preventing waste during the winter. At present 51,000 acres are irrigated in the county, excluding La Habra. This is divided as follows: Citrus district 39,000 acres, low lands of coastal plain 7,000 acres, and mesa lands 5,000 acres.

Summary for Santa Ana River Lands.

Area.	Agricultural land. Acres.	Irrigated land. Acres.	Estimated area that will ultimately be irrigated. Acres.	Possible sources of water for further development.
Pomona Valley and Cucamonga Plains	131,448	44,823	55,000	Underground waters.
San Bernardino Valley and Riverside	200,523	79,992	100,000	Storage on Santa Ana River and tributaries and underground waters
Yucaipa Valley and San Gorgonio Pass	72,000	7,730	24,000	Storage on Whitewater River canyons above Yucaipa Valley and undergrounds waters.
San Jacinto Valley and Corona	268,200	29,862	40,000	Storage on San Jacinto River and Strawberry Creek and underground waters.
Orange County	204,500	51,000	60,000	Underflow of Santa Ana River and underground waters.
Totals	876,671	213,407	279,000	

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[1] U. S. Geol. Survey, Water Supply Paper No. 300.

SAN DIEGO COUNTY.

In San Diego County, as in Santa Barbara and Ventura counties, the problem of further development is largely one of the storage of flood waters, but a distinguishing feature between this and the upper counties is that the need of irrigation in San Diego County has never been questioned. Here the atmosphere is drier, the summer temperatures higher, and the precipitation and stream discharge less. The discharge is also more erratic, for the more arid the country the greater the variation of precipitation from the normal. The maximum discharge for some years may be several times the normal, while in other years the catchment in reservoirs has been almost nothing. These conditions must be contended with and they account in some measure for flood waters not being completely stored at the present time. Capacity must be provided for the storage of the combined floods of two or three years for the best utilization of the water resources. This makes the stored water costly, but its value for irrigation justifies an unusual expense. Opportunity is given for the development of power, without interference to irrigation, in connection with almost every storage project, and recently investment in storage works has been encouraged by the increasing demand for electrical power as well as by a rise in the value of water for irrigation. Another factor in the development now taking place is the need of San Diego for domestic water. Underground waters have not been fully developed, although they are drawn on more heavily than in Santa Barbara and Ventura counties.

SANTA MARGARITA VALLEY AND FALLBROOK.

Santa Margarita River is most northern of the streams of San Diego County. Part of its headwaters is in Riverside County. Its main branch above Temecula Canyon where the waters pass through the coast range is known as Temecula Creek. The mountain country above the canyon contains small basins with rolling land ranging in elevation from 1,000 to 3,000 feet above sea level. Among them are Temecula, Murietta, French, Los Alamos, Glen Oak, Wilson, Terwilliger, and Coahuilla valleys, situated in Riverside County, and Oak Grove Valley in San Diego County. These mountain valleys are used for grain and pasture. Aside from 600 acres in Temecula Valley, only a few acres are irrigated in the mountain country. The elevation is too great for some crops. The valleys are so near the source of the streams that sufficient water is not available for the land. Water is taken from Temecula Creek for use in Temecula Valley, by temporary dams rebuilt each year. Four flowing wells are located on Rancho Pauba and two are located near Murietta. Alfalfa is the principal crop irrigated.

Santa Margarita Valley is 12 miles long and has an average width of three fourths mile. Much of the land is in grain. Twelve hundred acres of alfalfa on the Home ranch is irrigated from a small storage reservoir in the upper end of the valley. Sugar beets were grown on

150 acres without irrigation in 1912. This valley is rolling and has dark loam soil with a light adobe in places. The land becomes somewhat marshy and alkaline near the coast. The entire valley is a part of the Santa Margarita grant of 260,000 acres not yet subdivided.

The Fallbrook area is devoted chiefly to grain, but small areas of citrus fruit, garden truck, and alfalfa are grown by irrigation. The land is rolling and hardpan is usually found within a few feet of the surface. Efforts were made to organize an irrigation district for Fallbrook at the same time the Escondido district was launched, but the project got no farther than preliminary organization. Water for irrigation is secured by pumping from wells. The underground supply has not been well determined, but indications are that it is not abundant. The country about Fallbrook can be supplied with water from either the Santa Margarita or the San Luis Rey. The proposed Pauma reservoir, if constructed on the latter stream, would be in a position to serve this territory, although it is probable that the water available from the San Luis Rey might be used to better advantage on lands along that stream. Some development may be expected in Santa Margarita Valley from pumping underground waters, as the supply is good. The conditions for underground waters are also good in Temecula Valley, but this is the only one of the mountain valleys that may be expected to develop by irrigation. A reservoir site is located on the Santa Margarita at the junction of Temecula and Murietta creeks. By constructing a dam across the narrow gorge at the upper end of Temecula Canyon water could be stored in a large basin above. The flow of Temecula Creek, however, is small and loss by evaporation would have to be considered. It is not certain that the water supply would justify construction, as the water would have to be carried 10 or 15 miles by a pipe to reach Fallbrook or Santa Margarita Valley. The watershed above Temecula Canyon is 120 square miles, but it contains more rolling than mountainous country. A large portion of the land on the lower stream could be irrigated provided the flood waters were conserved.

Santa Margarita Valley contains 6,272 acres of agricultural land, Fallbrook 12,800 acres, and the mountain valleys 95,000 acres, a total of 114,072 acres. The areas irrigated are as follows: Santa Margarita Valley 1,200 acres, Fallbrook 122 acres, and mountain valleys 310 acres, making a total of 1,632 acres.

SAN LUIS REY, ESCONDIDO, AND SANTA YSABEL VALLEYS AND LINDA VISTA MESA.

Under this heading is included all of that portion of San Diego County lying between Santa Margarita and San Diego rivers. The total area of agricultural land is 154,498 acres, and of this 4,995 acres are irrigated. The San Luis Rey and the Santa Ysabel are the only streams in this territory which rise in the high mountains of the eastern part of the county. Escondido Creek drains a small territory between the two rivers. San Marcos, Los Penasquitos, and other small creeks cross the mesa near the coast, but are not of much consequence as regards water supply. It is convenient to consider all of this portion of San Diego County together because development of the numerous small valleys and coast bench lands depends on the construction of irrigation systems involving the water supply of the several drainage basins.

The only portion that is already well developed is Escondido Valley. This district contains 13,500 acres of agricultural land and is practically on the divide between Escondido Creek and Santa Ysabel River, although the greater portion of the area slopes toward Escondido Creek. The irrigation system here was begun under the Escondido Irrigation District and completed by the Escondido Mutual Water Company, which succeeded the district. The district, which experienced the usual troubles of the early irrigation district organizations, transferred its property to the mutual company on the basis of $225,000 valuation, the actual cost at the time being over $400,000. The district included 13,000 acres and 853 acres are now irrigated under the mutual water companies' system. The principal source of water for Escondido is San Luis Rey River, from which stream 3,000 miner's inches was filed on. The water diverted is carried by open ditch, tunnel, and flume across and through the divide to the headwaters of Escondido Creek. A tunnel is now being constructed to replace 1,900 feet of flume. An important feature of this system is the Escondido dam, a loose rock fill, lined on the upper face with redwood plank and constructed to a height of 76 feet on one branch of the creek, giving a storage capacity of 3,500 acre-feet. The water stored is delivered to members of the mutual company in proportion to stock. The duty of water under the system is 1 miner's inch for 10 acres. The charge is 10 cents per miner's inch for twenty-four hours. Oranges, lemons, grape fruit, raisin, wine and table grapes, vegetables, and alfalfa are irrigated.

The important areas of agricultural land in the San Luis Rey drainage are Warner's ranch, Bear Valley, and San Luis Rey Valley. Warner's ranch is a tract of 44,500 acres occupying a mountain basin 36 miles back from the Pacific coast. The land is rolling and used for grazing. Numerous small streams which drain into the basin from the north, south, and east, where they unite either on the surface or as underground water, form the San Luis Rey River. This drainage is all concentrated at the canyon of the river which gives an outlet to the basin toward the Pacific, and at this point is located the Warner dam site.

Bear Valley is located below Warner's ranch and south of the river at the divide between the San Luis Rey and Escondido Creek drainage. It contains 11,800 acres of agricultural land and 200 acres are irrigated. This area has been very little developed owing to the lack of water and transportation.

San Luis Rey Valley borders the lower river. Two small companies, the San Luis Rey Irrigation Company and the Libby Ditch Company, have ditches from the river covering lands in this valley, and there are in addition a number of pumping plants. The irrigating company is a mutual organization, but the Libby Ditch Company is not incorporated. Water is available for irrigation only in the winter months, although the San Luis Rey is the largest stream in San Diego County. The crops irrigated are alfalfa, sugar beets, and vegetables. Several mountain valleys on the headwaters of San Luis Rey River are small and they have not been classed as agricultural land owing to the poor prospect of development. San Luis Rey Valley contains 25,600 acres of agricultural land and 2,147 acres are irrigated.

The principal areas of agricultural land on Santa Ysabel River are San Dieguito, San Pasqual, Santa Maria, and Green valleys. The Santa Ysabel is sometimes called San Dieguito River, this name being applied especially near the coast. It is also sometimes called the San Pasqual, in its middle course where it traverses San Pasqual Valley, while the upper river is known as Bernardo River.

San Dieguito Valley contains about 2,000 acres, of which 150 acres are irrigated, alfalfa being the principal crop under irrigation.

San Pasqual Valley contains 3,440 acres, of which 1,040 acres of deciduous fruits, alfalfa, and vegetables are irrigated. The soil is a light sandy loam and free from alkali. The holdings vary from 5 to 300 acres each. The irrigation is under the East San Pasqual Ditch Company and the West San Pasqual Water Company. Both are coöperative, but neither has been incorporated. The respective rights of these associations to water from the river have been defined in the case entitled *Huffner* vs. *Judson,* in the Superior Court in 1898. Both companies have been in litigation with riparian owners, but these questions are still unsettled. Water is diverted from the river by ditches, that on the east side irrigating 240 acres and that on the west side about 800 acres. Of the land on the west side 401 acres is entitled to all of the water going to the association during the irrigating season, but the remainder of the land receives water during the winter. A few artesian wells have recently been drilled in this valley.

Santa Maria Valley is located on Santa Maria Creek, the principal tributary of the Santa Ysabel. The valley contains 16,380 acres and 102 acres are irrigated. Lands in the vicinity of Ramona, the settlement in this valley, are held in 5 to 40 acre tracts, and the grain land at the borders in much larger tracts.

Green Valley lies south of the Santa Ysabel and is not adjacent to either the main river or an important tributary. It contains 2,450 acres, none of which is irrigated. The land is rolling and is underlaid with hardpan, as are most of the valleys of this region.

San Marcos Valley is northwest of Escondido. It contains 33,200 acres, of which 213 acres of citrus fruits and vegetables are irrigated. The unirrigated land is in grain. The land is rolling and is underlaid with hardpan of the same nature as that found at Escondido. The underground water is the supply for the irrigation of the small area receiving water.

Poway Valley is 15 miles northeast of La Jolla and is drained to the ocean through Los Penasquitos Canyon. It contains 2,100 acres, of which only about 20 acres of citrus fruit and vegetables are irrigated. The character of the land is similar to the other valleys of this part of San Diego County.

A strip of bench land borders the coast from the northern boundary of the county to the mouth of San Diego River, a length of 50 miles and with a width of not exceeding 3 miles at any point. This strip would be continuous except for the lagoons where the Santa Margarita, San Luis Rey, Escondido, and Santa Ysabel rivers and other smaller streams enter the ocean. These lands slope gently towards the coast and are adapted to agriculture, although the ocean winds might not permit the growing of citrus fruits. The chief settlements along this coast are Oceanside at the mouth of the San Luis Rey, Encinitas at the mouth of Escondido Creek, and La Jolla and Pacific Beach, resorts near San Diego. The total area of the coast land is 24,960 acres, of which 270 acres are now irrigated. Some of the land is within large Spanish grants. The crops irrigated are alfalfa, a few truck gardens and commercial flower gardens in the vicinity of settlements. The unirrigated lands are used for grain and lima beans.

Linda Vista Mesa contains 19,000 acres of good agricultural land and embraces a territory lying just north of Mission Valley on the San Diego River and just back of La Jolla and Pacific Beach on the coast. The mesa corresponds in elevation to La Mesa and Lemon Grove on the south side of San Diego River and is above the coast bench. The area is very broken in outline owing to numerous little canyons that have been eroded by the streams running toward the sea. The soil is suitable for citrus fruits even though it has the characteristic hardpan. The ocean breeze is less violent than at points immediately on the coast. Years ago the Linda Vista Irrigation District was organized for a territory of 4,200 acres embracing the mesa. Bonds were sold to the amount of $178,000. The Pamo, Santa Maria, and Dye Valley reservoir sites, together with the water rights and right of way for conduits, were acquired and preliminary engineering work done. The district failed, leaving the lands under mortgage and liable for interest on the bonds until recently, when the district was dissolved. Consequently no development occurred during this period. Much of the land was not even dry-farmed and remained in its desert state with growth of brush and grass. Much of the soil is loamy and reddish in color, mixed in places with water-worn cobble. Alkali is not present in quantities that would be detrimental to agriculture. There are some small holdings, but a large portion of the land is held in tracts of thousands of acres. This land should be adapted to lemon culture, being situated much the same as Lemon Grove, Chula Vista, and other districts in San Diego County.

The development of the agricultural areas in this part of San Diego County lying between Santa Margarita and San Diego rivers depends much on the action of the Volcan Land and Water Company. The operations of this corporation may be objected to by the Escondido water users who have vested rights in San Luis Rey River. The Escondido company owns land bordering the south side of the San Luis Rey and claims riparian as well as appropriation rights. The Volcan Land and Water Company contemplates the construction of Warner, Pamo, and Santa Maria reservoirs, together with the ditches and pipe lines necessary for connecting them into one system, extensive power development below the reservoirs, and delivery of the water for irrigation of Linda Vista Mesa and several valleys. Claims have been made to all of the unused waters of San Luis Rey and Santa Ysabel rivers above the reservoir sites. Construction of the Warner dam has been begun and rights of way have been secured and surveys are being made for the completion of the project. It is proposed to build Warner dam to a height of 60 feet, although the height can be increased to 100 feet. The reservoir has a watershed of 213 square miles, over which the rainfall is probably 30 inches. The company has estimated that the amount available for storage annually is 125,200 acre-feet. One of the greatest objections to the Warner site is the comparatively flat basin above the dam which will expose a large area of water surface and lead to high loss by evaporation. It is proposed to convey the water stored in the Warner reservoir southwestward across the divide to the projected Pamo reservoir in the valley by that name on Santa Ysabel River. This basin has a watershed of 114 square miles, the greater portion of which is from 1,500 to 5,000 feet in elevation. The amount available for storage annually is estimated by the company's engineer at 41,090 acre-feet. The outlet conduit from the Pamo basin is surveyed to continue southwestward through San Pasqual Valley and toward Linda Vista. The Santa Maria reservoir will be connected to the canal in San Pasqual Valley. This site has a watershed of 56 square miles with elevations of from 1,300 to 4,000 feet. It has been estimated that 8,700 acre-feet are available for storage, making a total of 174,990 acre-feet for storage by this system.

The discharge of San Luis Rey River for the period 1903 to 1910 at Pala is 50,000 acre-feet annually, and that for Santa Ysabel River at the head of San Pasqual Valley for the same period 38,500 acre-feet annually.[1] The Pala gagings on the San Luis Rey are, however, 24 miles below Warner reservoir. Gagings made by the Volcan Land and Water Company in December, 1905, and each month from January to June, inclusive, of 1906, also each month from May to November, inclusive, of 1911, show a mean monthly discharge varying from 1.2 to 765.9 cubic feet per second.

The capacity of the reservoirs of this system in acre-feet are: Warner 173,000, Pamo 44,000, and Santa Maria 12,000. The San Luis Rey and Santa Ysabel are subject to great extremes of flow and the floods of an occasional year may be several times the normal. For this reason the complete utilization of the flood waters depends on sufficient storage capacity to impound the waters of the great floods and hold them for use in dry years. The total storage capacity contemplated is 229,000 acre-feet. The company proposes to divert 85,000 acre-feet annually.

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[1] U. S. Geol. Survey, Water Supply Paper No. 300.

If the Volcan system furnishes water for 43,000 acres it is probable that most of the land reclaimed will be on Linda Vista Mesa. The irrigation of these lands must come from storage of flood water as underground water is not available on the mesa. Poway Valley has 24 square miles of local watershed. It is estimated that 800 acres may be irrigated from the Volcan system and local sources. The stored water if not used elsewhere can be conveyed to Escondido, San Luis Rey, San Dieguito, Green, San Marcos, and Bear valleys, also the coast bench lands. It is estimated that 3,000 acres in San Luis Rey Valley and 1,000 acres in San Dieguito Valley may be irrigated by the development of underground water alone. Bear and Green valleys have but little local watershed and underground water is not sufficient to give prospects of much development. About 500 acres might be irrigated in San Marcos Valley. It is possible that some underground water in San Pasqual Valley is intercepted by the concrete subsurface dam at the head of the San Pasqual ditches, but some pumping, together with a higher duty of water, should lead to the irrigation of practically all of the valley, 1,200 acres. Santa Maria Valley and Warner's Ranch both furnish reservoir sites and riparian land. Probably 300 acres may be irrigated in Santa Maria Valley. Prospects are not favorable for irrigating more than 40 acres on the coast bench near Oceanside. It is estimated that a total of 51,600 acres may be irrigated in this part of San Diego County, including 11,000 acres for Escondido. Power may be developed between the Escondido dam and distributing system.

SAN DIEGO RIVER VALLEYS AND MESAS.

San Diego River rises in the mountains near Julian and flows southwestward to False Bay, just north of San Diego Bay. Boulder Creek, the outlet of Cuyamaca Lake, is one of the chief tributaries. The districts dependent upon this stream for water are El Cajon Valley, the first basin crossed by the river after leaving the mountainous country; Mission Valley, which includes the narrow strip of bottom land along the river flanked on both sides by mesas just north of San Diego, La Mesa and Lemon Grove, being the mesa south of the river, and Spring Valley, a small area south of El Cajon Valley. Spring Valley lies within the drainage basin of Sweetwater River, but is too high to receive water from that stream. It is possible to bring water from San Diego River through Sweetwater Pass for use on this area.

The following table summarizes the areas of agricultural and irrigated land under San Diego River:

Summary of agricultural and irrigated areas under San Diego River.

Area.	Irrigated land. Acres.	Agricultural land. Acres.
El Cajon Valley	27,100	1,143
Mesa land	12,000	4,700
Mission Valley	3,000	1,000
Spring Valley	2,600	300
Totals	44,700	7,143

The soil of El Cajon Valley is of sandy loam with good drainage. The soils of Spring Valley are similar to those of El Cajon Valley. Mission Valley is low and flat and portions are sometimes flooded during heavy rains. The soil is fertile, but alkali is found in the lower marshy areas. La Mesa and Lemon Grove are elevated areas in which the drainage has eroded deep channels, leaving irregular-shaped areas of mesa extending out from the hills. Hardpan is present on these mesas, but it does not seriously hinder fruit-growing, as the hard stratum is readily broken up by blasting for the planting of young trees. The level portion of the mesa slopes westward at the rate of about 50 feet per mile.

Improved lands are held in tracts of 5 to 40 acres and the unimproved grazing land in tracts of several thousand acres.

El Cajon Valley, La Mesa, and Lemon Grove are supplied with water by the Cuyamaca Water Company, formerly known as the San Diego Flume Company. This system utilizes Cuyamaca Lake as a storage reservoir. An earthern dam was constructed to a height of 41.5 feet, increasing the capacity of the lake to 12,000 acre-feet. The mean annual run-off from the drainage above the basin is about 5,000 acre-feet. Water released from the reservoir follows Boulder Creek to the north fork of the main river, where it is diverted into a flume 36 miles in length. Lateral pipe lines are taken from the flume to supply lands in El Cajon Valley and La Mesa. Water rights under this system were sold at from $600 to $800 per miner's inch, 1 miner's inch serving 10 acres. The company is a public service corporation and charges an annual rental of $60 per miner's inch.

Two distributing reservoirs are located near the lower end of the flume. The upper or Cujomeco reservoir has a capacity of 36 acre-feet and the lower or La Mesa reservoir a capacity of 1,460 acre-feet. This company has one pumping plant in El Cajon Valley and others in Mission Valley which are operated in dry seasons to supplement the supply of water from the flume.

A variety of crops are grown in El Cajon Valley, including oranges, lemons, grape fruit, raisin and wine grapes, olives, berries, deciduous fruits, and vegetables. La Mesa and Lemon Grove are known for their lemon orchards. All the crops are irrigated.

Alfalfa, sugar beets, and vegetables are grown in Mission Valley, water for irrigation being supplied by several small ditches and pumping plants. The Julian apple district is located in the rolling land at the headwaters of the north fork of San Diego River at an elevation of about 4,000 feet. Some other deciduous fruits are also grown here. Orchards at Julian are unirrigated.

Although Cuyamaca reservoir has more than sufficient capacity to store the ordinary run-off, some water can not be stored in years of high rainfall and there is a possibility of the dam being raised to increase the efficiency of the system. The watershed above the reservoir is 11.5 square miles. The annual rainfall over this area varies from 12 to 40 inches and the mean run-off is 5,307 acre-feet. The watershed drains a portion of Cuyamaca Peak, the highest point in San Diego County, reaching 6,516 feet in elevation, but the large area of water surface leads to a large loss by evaporation. The total loss between the amount stored in the reservoir and the amount delivered to users, including both evaporation from the lake and the loss from the flume, is about 50 per cent. The watershed above the intake of the flume is about 100 square miles. The waters of the north fork as well as those from the reservoir are taken by the flume. During flood season much water overtops the diversion dam and runs to waste except that it contributes to the underground reservoirs in El Cajon and Mission valleys. San Diego River is usually dry during fall and early winter. The Lake Helena or Dye Valley dam site is located on the north fork of San Diego River, about 1 mile above the head of the flume. The watershed above it is 80 square miles. A dam could be constructed to give a capacity of 10,000 acre-feet. The measurements of San Diego River near Lakeside for the period 1906 to 1910 show a mean annual discharge of 39,600 acre-feet.[1]

Further development of underground waters in El Cajon and Mission valleys is now taking place and considerable increase in the irrigated area should come from this source. Water is found at depths of 15 to 30 feet over El Cajon Valley. It should be possible to secure enough water from wells in Mission Valley to irrigate all the land there. It is estimated that ultimately over 15,000 acres will be irrigated from San Diego River. This district has been comparatively free from litigation, there having been only a few minor court cases.

SWEETWATER VALLEY AND CHULA VISTA MESA.

Sweetwater River is south of San Diego River and flows into San Diego Bay south of National City. It rises east of Cuyamaca Peak and passes through mountains for 30 miles, after which it reaches more open country. Sweetwater dam is constructed across a gorge where the river passes through San Diego County almost parallel to the coast. The principal valley is known as Sweetwater Valley and is located below the reservoir. The Chula Vista mesa, with its lemon groves, borders

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[1] U. S. Geol. Survey, Water Supply Paper No. 300.

San Diego Bay on the south side of the river. A number of small valleys of less importance are located along the river in the mountains, among them being Lawson Valley and the basin about Descanso.

Sweetwater Valley and Chula Vista contain 14,080 acres of tillable land and 4,750 acres are irrigated. All of the water is secured through the Sweetwater system excepting a little pumped from wells. The crops grown include lemons, oranges, grape fruit, olives, alfalfa, grain, and vegetables, all being irrigated excepting grain and in some cases olives. Land holdings are small.

The soils are generally light sandy loams with some river sediment in Sweetwater Valley. In some places the citrus groves extend well up on the hill slopes, water being pumped from wells in Sweetwater Valley for their irrigation. Some heavy soil is found on the Chula Vista mesa or National ranch lands and a hardpan is present which is blasted for the planting of citrus trees.

One acre-foot per acre annually is considered ample for citrus orchards but the amount of water stored in Sweetwater reservoir has not always been sufficient for the delivery of this amount and the actual use has fallen as low as .3 acre-foot per acre.

The irrigation system is owned by the Sweetwater Water Company, formerly known as the San Diego Land and Town Company, which is a corporation supplying water to the land owners. The rate is $7 per acre per annum up to a total of 350,000 gallons. A charge of 2 cents per thousand gallons is made for any amount in excess of this. The distributing system is of iron pipe and the water is measured to land owners through meters of the type used for city domestic systems. The company claims all flood waters of Sweetwater River. The company or its predecessors have been involved in a number of very expensive lawsuits.

Sweetwater reservoir has been enlarged twice since its original construction, the last addition to the dam being completed in 1911, when the height was raised 15 feet. The present capacity is 35,422 acre-feet. The total cost of the system is over one million dollars. The dam is curved and originally was constructed of cement masonry but the last addition consisting of both height and thickness was of concrete. The height now is 113 feet. The watershed above the reservoir is 186 square miles in which the elevations range from 200 to 6,000 feet above sea level. The rainfall at the dam is about 12 inches and the average for the entire shed is estimated at 20 to 21 inches. The average evaporation from Sweetwater reservoir amounts to 4½ feet in depth annually. The mean annual run-off of Sweetwater River for eighteen years is 10,700 acre-feet. The capacity of the reservoir before the last enlargement was 22,500 acre-feet. This capacity was not sufficient to store all of the floods in a year of high rainfall and at times water over-topped the dam. The present capacity is sufficient for impounding the entire run-off of the watershed except possibly in an extremely wet year and the enlargement greatly increases the efficiency of the Sweetwater system. The discharge of the river in only one of 18 years exceeded the present capacity of the reservoir. Some years scarcely any water has been stored in the reservoir but it is safe to have storage capacity for a 3-year supply. During the dry years of 1898 to 1900 twelve pumping plants were installed along Sweetwater River to supplement the supply in the reservoir. The plants have an aggregate capacity of 794 miner's inches. They have not been operated for several years. It is probable that the addition to the dam will result in a slight increase in acreage irrigated but this improvement is regarded as one of security rather than extension of the company's service. Some increase may come from the operation of pumping plants now located along the river and from further development of underground waters. There being no diversions below Sweetwater dam pumping should not lead to trouble and the underground supply appears to be good.

A reservoir site is located on Sweetwater River near Descanso at an elevation of 3,300 feet and 24 miles above the Sweetwater reservoir. A survey of this site shows that a dam 100 feet high would provide storage capacity for 10,000 acre-feet. Since Sweetwater reservoir now has sufficient capacity to store all run-off of the river in an ordinary year it is doubtful if the upper site will be utilized at least for a good many years. The utilization of the upper site might permit power development not possible from the Sweetwater reservoir and it might also result in the prevention of some loss of water that now occurs from the channel above Sweetwater reservoir.

OTAY AND TIA JUANA VALLEYS.

Otay and Tia Juana valleys, together with the adjoining mesas, contain 36,318 acres of agricultural land of which 1,360 acres are irrigated. Practically all of the water furnished by the mountain portions of these streams in the United States is claimed by the Southern California Mountain Water Company for the domestic use of San Diego. Otay Creek is the next stream south of Sweetwater River. The Tia Juana rises in the mountains of Baja California but crosses the international boundary line and empties into the ocean south of San Diego Bay. Cottonwood Creek is the chief American tributary. The main areas of agricultural land bordering the Otay and the Tia Juana are near the coast, where their valleys join and all of the irrigated land is located in this section. The Tia Juana has some valley in Mexico.

A number of small basins in the mountains do not contain much agricultural land. The chief one on Otay Creek is Jamul Valley, while Pine Valley is the most important in the Tia Juana drainage. Pine Creek enters Cottonwood Creek from the north and is one of the main branches of this system as regards water supply.

The soils of these valleys are sandy loams, while reddish sandy and clay loams are found on the mesas. Some of the upper areas have a hardpan at a depth of several feet below the surface, which must be broken up for tree planting, but after it has been broken no serious results have been experienced. Alkali is found only in small areas near the coast. The land bordering the streams is adapted to alfalfa and garden products, while the rolling mesa land is well suited to citrus and other fruit trees. Grain is grown where no water has been provided for irrigation.

Water for irrigation is supplied chiefly by pumping plants located in the valleys and it is used very economically. One miner's inch is sufficient for 10 acres of citrus fruits and for 5 or 6 acres of vegetables. The lands of the Little Landers corporation are located in Tia Juana Valley. Under this project it was intended that each member of the colony have 1 acre to farm aside from a building lot. The total tract comprises 500 acres, about 200 acres of which is already under irrigation. Water is derived from 5 wells about 30 feet deep, in which the water stands at 4 feet below the surface. The pumping lift is about 16 feet. Water is stored in small reservoirs and distributed through pipes. It is the intention for the water system to become the property of a mutual company of the land owners, but in 1910 the promoting company was temporarily, at least, financially unable to proceed with the original plan. The San Ysidro Irrigation District has been organized. It proposes a $75,000 bond issue for securing water from wells in Tia Juana Valley.

The system of the Southern California Mountain Water Company as planned will, when complete, include four storage reservoirs. The Upper and Lower Otay reservoirs were the first constructed. The third impounding basin has been formed by the completion of Moreno dam on the headwaters of Cottonwood Creek. There is a possibility that the fourth basin will be provided by the construction of a dam at the Barrett site just below the junction of Pine and Cottonwood creeks. The capacities of these reservoirs are as follows:

Capacities of reservoirs supplying water to San Diego.

Name.	Gallons.	Acre-feet.
Upper Otay	1,090,000,000	3,300
Lower Otay	13,000,000,000	39,900
Moreno	15,000,000,000	45,800
Totals	29,000,000,000	89,000
Barrett (proposed)	15,000,000,000	45,800

The Upper Otay dam is a curved dam of reinforced concrete 84 feet high on the west branch of Otay Creek and with a watershed of only 12 square miles. The run-off is not sufficient to fill the reservoir except when the rains are very heavy. The Lower Otay reservoir is on the main stream below the junction of Jamul and Dulzura creeks. It has a watershed of 100 square miles including that of the Upper Otay. The dam is 130 feet high and is a loose rock fill with a core of riveted steel plate protected on either side by a wall of concrete about 1 foot in thickness. The outlet is at the 48-foot contour, making only the upper 82 feet effective. The natural drainage is insufficient to fill the reservoir, but provision has been made for bringing water from Cottonwood Creek by the construction of the Dulzura conduit through the pass by that name, and the excess capacity of the Lower Otay may be used to store water that can not be held in reservoirs on the Cottonwood. The Dulzura conduit is 13.38 miles long and diverts water from Cottonwood Creek at the Barrett dam site. After crossing the divide between the Cottonwood and Otay watersheds it discharges into Dulzura Creek, whose course the water follows en route to Lower Otay reservoir. The conduit has 9,219 feet of tunnel and 4,490 feet of flume, the remainder being open ditch lined with concrete. Moreno dam is constructed in a rocky gorge of the high mountains and is a rock-fill with an upper face of cement masonry covered with concrete slabs to make it water-tight. Underneath the superstructure is a concrete foundation reaching to bedrock. The height of the dam is 365 feet over all and 150 feet above the stream channel. Five and a half feet can be conveniently added with considerable increase in capacity. This dam is in volume one of the largest constructed and cost $750,000. The reservoir has a drainage area of 135 square miles. The Barrett site consists of a narrow gorge where it is possible to build a high dam without great length. Any water that cannot be stored in the Moreno reservoir can be passed on to a reservoir at Barrett site, and both are above the Dulzura conduit which connects the Cottonwood system with Otay Creek. The Barrett site has a watershed of 115 square miles, exclusive of that above Moreno dam. The mean annual discharge of Cottonwood Creek near Jamul, from 1905 to 1910, was 31,000 acre-feet.[1] Still another reservoir site, located in Pine Valley, has been reported, but there is no assurance that this will be utilized.

This system has been constructed primarily for serving the city of San Diego with a domestic supply and although construction has been a little in advance of the needs of the city contracts for the delivery of water for irrigation have not been made as it is anticipated that the city will soon acquire the system as a municipal plant. If all of the water were now conserved there would be more than is now needed for domestic use, but as the city is growing rapidly it is probable that the time will come when the entire supply will be required. There is a drop of 700 feet between the lower end of the Dulzura conduit and the Lower Otay basin which offers some possibilities for power development.

The Southern California Mountain Water Company acquired the rights of a number of companies, among them the Mount Tacate Land and Water Company, the Otay Water Company, and the Jamacha Irrigation District, which failed to materialize. Some increase in the irrigated land on the lower part of the two rivers should come from pumping, but this can not be great as the underground water will probably be diminished by storage in the mountains.

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[1] U. S. Geol. Survey, Water Supply Paper No. 300.

Summary for San Diego County.

Area.	Agricultural land. Acres.	Irrigated land. Acres.	Estimated area that will ultimately be irrigated. Acres.	Possible sources of water for further development.
Santa Margarita River valleys and Fallbrook	114,072	1,632	10,000	Storage on Temecula Creek and underground waters.
San Luis Rey, Escondido, and Santa Ysabel valleys and Linda Vista	154,498	4,995	51,600	Storage on San Luis Rey, Escondido, and Santa Ysabel rivers and underground waters.
San Diego River valleys and mesas	44,700	7,143	15,000	Storage on San Diego River and tributaries and underground waters.
Sweetwater Valley and Chula Vista Mesa	14,080	4,750	7,500	Underground waters.
Otay and Tia Juana valleys	36,318	1,360	3,000	Storage on Cottonwood Creek and underground waters.
Totals	363,668	19,880	87,100	

COLORADO DESERT AND RIVER VALLEYS.

The country east of San Gorgonio Pass has conditions that differ in many respects from those within the coastal drainage of southern California, yet in other respects there are some characteristics in common. Agricultural development once begun on the desert has been as rapid as that near the coast. This section, on account of its long hot summers, is not the first choice of most home builders for residence, although it enjoys proximity to beach and mountains not found in many of the interior irrigated sections of the West, and it has grown rapidly in spite of disadvantages for residence.

The rainfall is of no value in supplying moisture to crops or as a water supply. Colorado River is the source of water for all irrigated districts excepting Coachella Valley. This stream depends principally on the snows in the mountain states. The incentive for economy in the use of water is not so great as it is near the coast.

Practically all of the land on the desert originally belonged to the Government. Consequently, land holdings are large compared to those on the west side of the range where settlement was by purchase of private lands. Ranching predominates, although many of the fruits grow as well as on the coast. This division has peculiar problems in the control of Colorado River and the rights to use water from an interstate and international and navigable stream, some not being within the jurisdiction of the State. The organizations for the distribution of water have not all taken their final form, but it is evident that they will eventually be managed by the water users themselves.

COACHELLA VALLEY AND DESERT.

Coachella Valley and the desert is a northwestern extension of Colorado Desert and the valley is a portion of the Salton basin and is largely below sea level. The upper portion of the desert is also a continuation of San Gorgonio Pass. Both the valley and desert are within Riverside County. The greater portion of Coachella Desert is not considered as an agricultural country as the winds which sweep through San Gorgonio Pass and toward the lower heated area are so severe that tender vegetation can not withstand the drifting sand carried. The desert is crossed by rocky washes leading from the mountain canyons and is dotted with mammoth hummocks and covered with a sparse growth of greasewood and cactus in its upper areas. All brush leans towards the southeast, showing the prevailing trend of the air currents. Exceptions may be made regarding small pockets of land lying at the mouth of Palm Canyon on the southwest side and below Mission Creek Canyon at the northwestern end of the desert. About 10,000 acres near Palm Springs and about 6,300 acres below Mission Canyon may be considered as agricultural land. Morongo Valley is situated in the San Bernardino Mountains, a few miles north of the upper end of the desert, at an elevation of 2,300 feet above sea level. It is a mountain basin crossed by Big and Little Morongo creeks, both of which drain southward to Coachella Desert. It lies in San Bernardino County and contains 8,300 acres of agricultural land in addition to the number of acres given for Palm Springs and Mission Creek. Coachella Valley includes 142,600 acres of agricultural land, making a total of 167,200 acres for both desert and valley, including Morongo Pass. These sections are considered together because they have in large measure a common water supply.

Whitewater River is the principal stream and drains the eastern slope of Mount San Gorgonio with an elevation of 11,485 feet. The river enters the desert at the northwestern end and its wash may be traced practically all the way to Salton Sea. The Whitewater runs throughout the entire year. East of the Whitewater is Mission Creek, big and Little Morongo creeks, and other streams of less importance. These may be considered tributaries of the Whitewater as the water discharged from their canyons is absorbed by the gravels on the desert and must eventually mingle with those of the larger stream before reaching Coachella Valley. The water from the main river itself seldom runs on the surface for more than a few miles after leaving the canyon.

The lands of the desert are made up of the alluvium from the mountain streams which enter from all sides. Palm Canyon and Tahquitz Creek drain the San Jacinto Mountains, but the eastern slope is so precipitous that the drainage is much less than that from the San Bernardino Mountains. The fall from San Jacinto Peak, with an elevation of 10,805 feet, to Palm Springs, is over 9,000 feet in 7 miles.

The soils of Coachella Valley vary from the coarse sands of the alluvium of local streams in the upper areas to tight adobe originating as Colorado River sediment in the lower areas near Salton Sea. Alkali has been brought to the surface in the low areas by the underground water. Lands bordering Salton Sea contain salts in excess of 3 per cent.[1]

All of the land originally belonged to the Government, but the Southern Pacific Railroad Company, through its grant, acquired half of the sections in most of the valley and desert. For years the railroad lands were not on the market and settlement begun on the Government land under the desert and homestead acts, but within the last few years much of the railroad land has been sold. Farms range in size from 40 to 160 acres. Portions of the valley are reserved for the Indians.

According to the irrigation census taken in 1909, 3,791 acres were irrigated in Coachella Valley that year. There has been a slight increase since 1909. The irrigated land is scattered about Indio, Coachella, Thermal, and Mecca and some is on the Indian reservations. About 50 acres are irrigated near Palm Springs with water from Palm Canyon and Whitewater River. The figures are not available on the acreage irrigated in Morongo Valley, but it is probable that a small area of land is receiving water as the result of late development by wells.

The water for Coachella Valley is the underground supply which percolates southeastward from Whitewater Canyon toward the Salton basin. It is estimated that nearly 500 wells have been drilled in the valley. About 150 are pumped, and most of the others are artesian. The first wells were 400 or 500 feet in depth. The artesian area extends through the center of the valley above the Salton basin and at one time it reached beyond Indio covering an area of 140 square miles. The draft on the underground water was heavy and during the ten years ending in 1905 a shrinkage of one third in the area occurred, with the result that some of the wells in the upper portion of the valley near Indio which originally flowed had to be pumped. The artesian area is all below sea level, but this has no real significance, as it is impossible that underground water comes from the sea, since wells near the Salton basin produce saline water, while the wells in Coachella Valley deliver water with a high degree of purity.[2] Following heavy rains in 1905 the underground water partially recovered its former level and the discharge of many wells was restored to the former yield. Within the last few years some wells from 1,000 to 1,400 feet deep have been drilled and these produce a heavy artesian flow. They penetrate a lower water-bearing stratum in which the pressure is stronger. The gasoline engine is the most common power for pumping plants.

The crops of Coachella Valley include cantaloupes, grapes, Bermuda onions, cotton, citrus fruits, alfalfa, grain, and dates. All crops are watered as this is a section where nothing can be grown without irrigation. The climate resembles that of Yuma and Imperial Valley and the maximum daily summer temperatures range from 90° to 120° Fahrenheit. The summer season is seven or eight months in duration and the growing season extends almost throughout the entire year. Measurements of the amount of water used on different crops are not available.

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[1] U. S. Dept. Agr., Bureau of Soils Survey of Indio Area, California.

[2] U. S. Geol. Survey, Water Supply Paper No. 225.

but it is probable that alfalfa requires about 4 acre-feet per acre and most other crops no more than half that much. Where flowing wells are depended on for irrigation it is customary to store the small discharge of wells in earthen reservoirs in order that a larger irrigating head may be used from the supply thus accumulated.

The Rodgers ditch diverts water from Whitewater River and carries it to Palm Springs, where it is sometimes sold to the Indians for use on the reservation. The ditch has a capacity of 350 miner's inches.

It is difficult to estimate the amount of water entering the gravels of Coachella Desert from the mountain watersheds. The rainfall in the valley, as shown by records at Palm Springs and Indio, is approximately 3 inches annually and it is probable that the evaporation is sufficient to offset all precipitation over the desert itself. Only the higher mountain watersheds can be considered as contributing much to the underground water supply. The Whitewater has a mountain watershed of 60 square miles, Mission Creek 35 square miles, and Palm Canyon 180 square miles. The rainfall varies from 3 inches to 20 inches within these watersheds. As there is little timber or brush on the eastern exposures the run-off is rapid, but on the other hand the evaporation in this hot, dry climate is excessive. It is not probable that more than one tenth of the agricultural land in Coachella Valley will ever be irrigated from its own watershed and underground water.

The water users of Coachella Valley have brought suit to restrain the Consolidated Reservoir and Power Company from diverting water from Whitewater Canyon to be used for the development of electric power and irrigation in San Gorgonio Pass.

IMPERIAL VALLEY.

Imperial Valley is the reclaimed portion of the Colorado Desert. The region was uninhabitable before irrigation began in 1900. Development since has been very rapid.

Imperial County was formed from San Diego County in 1907, it then having the required population of 10,000. The county now supports five incorporated cities of 1,000 to 2,000 population, viz., El Centro, the county seat, Imperial, Brawley, Calexico, and Holtville; also several other growing settlements.

The Salton Basin was once part of the Gulf of California and the land of the valley was formed as delta of Colorado River. Nearly all of the irrigated section is below sea level, the bottom of Salton Sea being more than 280 feet below sea level.

The soil is silt several hundred feet deep and varying in hardness in different parts of the valley and at different depths, but the texture remains fine whether the consistency is that of adobe or of the loose soil. The soils at the edges of the basin are slightly coarser, due to the intermingling of sand from the mountain washes. In general, the central portion of the valley contains more hard soil than the surrounding portion. The hard soil, while containing a greater degree of fertility than the loose soil, is more difficult to pulverize by cultivation and must be worked at just the right time after applying moisture. The difficulty in irrigating the soil is to get moisture to sufficient depth that it may be retained and not lost by evaporation in the hot and drying atmosphere. The loose soil takes water much more freely and retains it for a greater length of time, consequently it is not necessary to irrigate so frequently as with hard soil. The desert soils are rich in salts and minerals, but deficient in humus and nitrogen. Alkali is present in proportions that are damaging to plant life in limited areas only. Some of these areas, such as that near Mesquite Lake between Brawley and Imperial, have been in part reclaimed by washing the land. The problem with alkali is one of the proper handling of water in irrigating. If water is used in excess, a local ground-water table will be formed, the rise of which will bring the salts to the surface. If the irrigation is carefully done and only enough water applied to furnish the required amount of moisture for plant growth, trouble need not be expected. Where the alkali content is high and water is applied in furrows, it is necessary to keep the salts well distributed by an occasional flooding for the growing of such crops as asparagus. The land slopes from 2 to 15 feet per mile, depending on location.

This region is known for the long, hot summers. The climate and soil are conducive to luxuriant plant life where the necessary amount of moisture is supplied. The maximum daily temperatures of summer range from 90 to 126 degrees Fahrenheit. It seldom falls below freezing in winter, although temperatures of about 20 degrees are recorded. The relative humidity is low during most of the hot season. The rainfall is not of value in supplying moisture to crops. Records for the valley cover a comparatively short period only, but a 31-year record at Indio in Coachella Valley, where conditions are about the same, shows an annual precipitation of 2.70 inches. The prevailing winds are from the southwest. They become dust storms at times preceding the hot weather, but are refreshing in summer.

A great variety of crops can be grown. The California Experiment Station is experimenting to determine the best standard crops. It has been demonstrated by land owners that the following are adapted to the soil and climate: Alfalfa, barley, Kafir and Egyptian corn, cotton, sugar beets, cantaloupes, watermelons, Bermuda onions, tomatoes, cabbage, sweet potatoes, chili pepper, blackberries, grapes, apricots, figs, olives, and dates. Some of the foregoing are limited to certain parts of the valley and to certain kinds of soils. The medium and soft soils have a greater range of suitable crops than the hard soils. Some of the crops, including alfalfa, are adapted to all of the classes of soils, although alfalfa thrives best in the softer grades.

Frost excludes citrus fruits from the selection of crops for the lowest areas. Vegetables, such as tomatoes, have been successfully grown in winter. Crops that have been grown with varying results in different cases and regarding which conclusions can not yet be drawn are: Potatoes, wheat, Indian corn, peaches, pears, plums, and strawberries. Apples and cherries are not suited to the hot desert climate.

The chief industries include the growing of alfalfa, grain, cotton, melons, grapes, and asparagus; also cattle, sheep, and hogs. Dairying is also followed with great success. Alfalfa constitutes a large portion of the feed for live stock, the greater number of the fields being pastured and not cut for hay. Alfalfa produces seven and eight crops per year.

Underground water in amount for extensive irrigation is not found in Imperial Valley. Borings at Imperial and El Centro reached depths of 800 to 1,500 feet without striking water. Wells bored to a depth of 800 to 1,400 feet at Holtville and north of Holtville flow. The water produced has a temperature of about 102 degrees. The surface of the ground in this locality is near sea level. The water probably percolates from Colorado River. The flow of wells is light and sufficient only for the irrigation of tracts of a few acres and for domestic use. An artesian flow was secured at Brawley from a well 1,880 feet deep.

Imperial Valley is irrigated from Colorado River by a canal constructed by the California Development Company. When the canal is clean, it has a capacity of over 3,000 second feet. The water is directed from the river just above the international boundary line. On account of the topography of the country, the canal detours into Mexico before entering Imperial Valley. It was necessary to organize a separate company, La Sociedad de Irrigacion y Terrenos de la Baja California, under the laws of Mexico, to operate the portion of the system in that country, but the stock of the Mexican company was owned by the California Development Company. The main canal is 56 miles long. It then divides near Sharpes, just south of the international boundary, into three branches, one each for the eastern, central, and western portions of the valley. The headgate near Colorado River is a concrete structure. Originally the drops, gates, and other structures along the main canal and its branches were of wood, but these are gradually being replaced by concrete structures of the best type.

The lands of Imperial Valley all belonged to the Government except the alternate sections of railroad land adjacent to the Southern Pacific track at the northern end. Some land was taken by settlers under the Homestead Act, but the major portion was filed on under the Desert Act; consequently there are many holdings of 320 acres each and families sometimes control one or two sections. Up to the present time there has not been much subdivision and the average size of farms is over 160 acres. The California-Mexican Land and Cattle Company own several thousand acres near Calexico, also nearly a million acres south of the international boundary, all operated as one ranch from American headquarters.

The California Development Company delivers water at fixed rates to mutual companies that were organized by the settlers of the various districts laid out according to topographical features of the valley. The Development Company constructed the distributing systems and transferred them to the mutual companies in exchange for their capital stock. The Development Company then sold the stock of the mutual companies to the settlers. The price of the stock steadily advanced with the demand from $5.75 to $25.00 per acre. The cost of constructing the distributing systems was much less, so that the Development Company profited by this transaction aside from any profit from the sale of water.

Contracts were also made with the mutual companies for the delivery of water at the rate of 50 cents per acre-foot, the amount to be delivered not to exceed 4 acre-feet per acre annually. The water charge was in turn paid by the user to the mutual company of which he was a member. The Development Company stands a loss by seepage and evaporation of 10 per cent of the amount delivered. Any loss in excess of this amount must be stood by the mutual companies. In addition to the water charge, mutual company members must pay the cost of maintenance and operation of their distributing system and the stock is assessed at the rate of about $1.25 per year for this purpose. The delivery of water is the main expense of operation and the cleaning of canals is the chief item in maintenance. The waters of the Colorado are heavily laden with silt and the quantity entering the ditches of the mutual companies exceeds 1 per cent by volume after settling thirty days, as shown by extended measurements of this office. This represents the quantity of mud that must be removed each year. Various types of dredges are operated to keep the channels open and crews of brush cutters are kept at work clearing the banks of weeds and the channels of aquatic growth.

Water is delivered to the user on order, within reasonable limitations. The duty of water, under Imperial Water Company No. 1, is 1.75 acre-feet per acre. Nearly one half of the land in this district is in alfalfa. The duty in the other mutual company districts is a little lower, but the No. 1 district being the oldest, shows more correctly the amount of water that will be used in the future. Alfalfa requires about 3 acre-feet when producing seven to eight crops. All other crops require no more than half as much. Water is measured to users as the basis of computing the charges.

Imperial Water Company No. 5 has an excellent drainage system in connection with its irrigation system. Provision has not been made in the other districts for drainage. Conditions for natural drainage from the land are improved by the erosion of the deep channels of New and Alamo rivers by the Colorado floods of 1905 and 1906.

Colorado River is an interstate and international stream and a division of the water between the two nations is subject to treaty. The river is classed as navigable by the Government and matters of navigation are controlled by the War Department. Questions arising from the use of water for irrigation in the several states embraced in its drainage would be referred to the Federal courts. Questions relating to the use of water within California are under the jurisdiction of the State courts. As yet troubles have not arisen between appropriators within the State. The California Development Company filed on 10,000 miner's inches from the river in the manner prescribed by the State. The company also secured concessions from Mexico for the taking of water from the river in that country, and it is under obligation to deliver one half of the total amount diverted for use on Mexican lands, provided the land owners offer the rate charged in the United States. Mexican landowners have not taken full advantage of this opportunity. Some land south of the international boundary is irrigated from the main canal, but it is in American ownership. The right to water for use in Imperial Valley is based on use, whether the right be vested in the user or the public service company. The first use in the valley antedates the diversions for other valleys on the lower river, except that of the old private ditches at Yuma and Palo Verde.

Litigation in Imperial Valley has related principally to various contracts between the development and mutual companies, to stock ownership, and to the legality of the development company's charging what is equivalent to a bonus, while at the same time charging for water. It has been demonstrated under the receivership of the development company that the water charge is sufficient to pay a good profit without other sources of revenue. The rate has not been fixed by the County Supervisors or by the State Railroad Commission. In *Thayer* vs. *California Development Company* it was decided that the company must deliver water to persons having access to its canal and offering the usual charge when demanded for use on land within the district originally intended to be supplied, provided the water was available and the company was already equipped for such delivery.[1]

Electrical power is developed at Holtville, at the plant of the Holton Power Company, with water from the canal system. The water is turned into Alamo River and most of it is used or will be used for irrigation by the North End and other mutual water companies that have filed on the waste waters.

The California Development Company is at present heavily in debt and under the management of a receiver. The Mexican company is also in the hands of a depositario or Mexican receiver. The events which led up to the company's insolvency are matters of history and relate largely to the expense of controlling Colorado River. The largest creditor is the Southern Pacific Company, which advanced money for turning the river to its original channel to prevent inundation of Imperial Valley and its own property by the rise of Salton Sea. The Southern Pacific Company took as security for loans the control of the Development Company. The Imperial Valley Irrigation District has been organized under the State law to include 511,000 acres and all of the land now irrigated, and this organization is now bargaining with the Southern Pacific Company with the view to acquiring the main canal system, the presumption being that the railroad company will buy the system at receiver's sale to protect its own claim, after which it will be in position to dispose of the property to the water users. It is the plan of the irrigation district to take the place of the California Development Company and deliver water to the mutual companies as they now stand; also to other lands within the district and outside of the territory covered by the mutual companies.

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[1] Since this was written the Supreme Court of California reversed the decision of the lower court and decided that the California Development Company is not a public utility.

Meanwhile irrigation under the present system is being extended by the construction of a canal to skirt the east side mesa. In view of the experience already gained, a duty of 1 cubic foot per second for 182 acres is being taken as the basis in designing this extension. The following table shows the extent of irrigation at present under the system of the California Development Company:

Summary of irrigated areas under California Development Company, 1912.

Name of company.	Area irrigated. Acres.
Imperial Water Company No. 1	99,600
Imperial Water Company No. 4	18,000
Imperial Water Company No. 5	45,000
Imperial Water Company No. 6	15,000
Imperial Water Company No. 7	16,000
Imperial Water Company No. 8	24,000
Imperial Water Company No. 12	11,000
Total	228,600

The Imperial South Side Water Company was recently formed from the district of Imperial Water Company No. 1, and is adding 13,000 acres to the area irrigated. This, together with a new allotment of stock now permitted in Imperial Water Company No. 1 on the basis of four instead of five shares to 5 acres, makes it possible to irrigate nearly all of the 135,000 acres that were originally in the No. 1 district. The Imperial South Side Water Company, also the Imperial East Side Water Company, and the South Alamo Water Company, are now purchasing water directly from the depositario of the Mexican company. The East Side and Alamo companies serve small areas. The North End Water Company filed on the waste waters of Alamo River and diverts them for use on lands near Salton Sea. The district embraces 10,000 acres and 6,360 acres are irrigated. The Imperial North Side Water Company has been organized for an additional area to receive water through the canal of the North End Water Company. The Bernice Water Company has a district of 30,000 acres to be irrigated north of District No. 5. Approximately 260,000 acres are now irrigated in the valley, the area being the largest under a canal in the United States. The new East Side canal, together with the projected Bernice dam, will add 131,000 acres to the irrigated area. An attempt is being made to place water on about 5,000 acres above the West Side canal and north of Signal Mountain, but it may be difficult to maintain a ditch for this section, owing to shifting sand dunes. About 400,000 acres will eventually be irrigated in the valley. With appropriations from the river from Yuma and Palo Verde, together with an increasing demand for water in Mexico, it is doubtful if water for a greater acreage could be safely depended on unless the discharge of the river is regulated by storage reservoirs in the mountains. The river has a drainage area of 225,000 square miles. The mean annual discharge at Yuma for the period 1902 to 1910 was 16,300,000 acre-feet.[1] The governing factor is the discharge in the several seasons with reference to the use of water at the same time. The maximum use of water is in August and, fortunately, it nearly coincides with the flood season for the river. The river is lowest in January and February. The annual flood comes in May, June, and July, and almost without variation the highest water occurs in the latter part of June. The discharge of the river varies from extremes of 3,500 to 150,000 second feet.

The valley contains 510,000 acres of irrigable land. About 129,000 acres on the east side mesa and 177,000 above the canal on the west side are classed as irrigable, making a total of 816,000 acres, of which only 400,000 are certain to be irrigated. Soils on both the mesa and the west side are slightly coarser than those of the basin. Water could be pumped for the irrigation of some of the land above the canals, providing the supply in the river is sufficient. The western territory includes the valleys of San Felipe and Cariso creeks. It is possible that a limited area west of Salton Sea and north of Superstition Mountain may be irrigated from wells, as this section gives promise of some underground water.

YUMA INDIAN RESERVATION.

The Yuma Indian Reservation embraces that part of Yuma Valley in California. It is opposite the town of Yuma, on the Colorado River, and reaches from Pot Holes to El Rio, being in Imperial County. The altitude at Yuma is about 100 feet. The Indian Reservation is included in the lands to be watered from the Yuma Government Project. Construction is done by the Reclamation Service of the Interior Department, in accordance with the reclamation act. The irrigation system is being paid for by and will become the property of the land owners who have formed the Yuma Valley Water Users Association.

Conditions at Yuma are best described by comparison with those at Imperial, there being much similarity in soil and climate. The soils of the reservation are sand and silt loams and adobe. They contain more sand and are a little coarser in texture than Imperial Valley soils. In general they are probably less fertile, but are easier to keep in a mulched condition by cultivation. The soils originated as Colorado River sediment. Limited areas on the reservation contain from 1 per cent to 3 cent of alkali, but the greater part of the land has less than .2 per cent.[2]

The temperatures in both summer and winter are generally 2 or 3 degrees lower than in Imperial Valley. The humidity is about the same except for the latter part of summer, when it is slightly greater at Yuma owing to the winds which blow northward along the river channel from the Gulf of California during this season. The prevailing winds are from the west and southwest. Dust storms are frequent in the spring.

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[1] U. S. Geol. Survey, Water Supply Paper No. 300.

[2] U. S. Dept. Agr., Bureau of Soils, Soil Survey of Yuma Area, Arizona.

The normal annual rainfall is not over 3 inches and the evaporation from a water surface amounts to about 7 feet in one year.

The eastern half of the reservation was open to entry when water for irrigation was available from Laguna Dam. The farm unit is 40 acres. Several sloughs traverse the valley near the river and portions of the land were formerly overflowed when the river was in flood. Levees have now been constructed as a part of the irrigation project to protect the lands from overflow. The moist areas support a rank growth of brush, which is expensive to clear, but the productiveness of the land under irrigation justifies the cost.

The western portion of the reservation is still held for the Indians, there being about 700 families, each with a 10-acre allotment. The area irrigated in 1912 is 6,500 acres.

All crops are irrigated. Alfalfa is the principal crop, although both southern and Egyptian cotton, melons, vegetables, berries, etc., are grown with success. Apricots, figs, and olives may be produced and live stock and dairying will no doubt be developed. Frosts are too severe on the river bottom lands for citrus fruits. They are grown on the Yuma mesa in Arizona, which is 60 or 70 feet higher than the valley. Alfalfa is flooded by the border method and vegetables are irrigated by furrows. The duty of water under the Yuma Project is five and one half acre-feet per acre per year. Alfalfa produces seven crops.

Water rights on Colorado River have not been adjudicated. Several small private ditches on the Arizona side received water intermittently prior to the construction of the large canals on the lower Colorado. They received water only at high river stage and irrigation under them was irregular. It is the intention of the water users in the several valleys on the lower Colorado to oppose contemplated diversions in other States near the river's headwaters.

The Yuma Project was designed for the irrigation of about 111,500 acres, of which 75 per cent was private land. Of the total, 16,500 acres are in California and 95,000 acres are in Arizona. Of the land in Arizona, 15,000 acres are in Gila Valley above Yuma; 50,000 acres are in the Colorado River Valley below Yuma, and 30,000 acres are on Yuma mesa and must be supplied by pumping from the canal under a total head of about 80 feet. The project was 73 per cent complete in June, 1912. Laguna Dam is a diversion weir across the river, 15 miles above Yuma. It raises the level of the river 10 feet and is 4,780 feet long. It is a loose rock fill between parallel walls of concrete, and has a covering of concrete. The dam was not intended to form a storage reservoir and the small basin above the dam rapidly filled with silt, except in the river channel. A canal is taken from the dam on the Arizona side for the lands in Gila Valley. A larger canal leads from the dam to Yuma on the California side, and laterals from this canal supply the Indian reservation with water. The main canal crosses under Colorado River at Yuma by a concrete inverted siphon and covers the valley land in Arizona below Yuma by gravity. Laguna Dam cost about $2,000,000, and, together with the levees for the protection of the valley on both sides of the river, accounts for the high acre cost of the project. The cost of water rights, when paid for in ten equal annual installments as originally provided for under the reclamation act, has been fixed at $55 per acre. So many of the settlers were unable to make the second annual payment that a sliding scale of payment was permitted, but the total cost under this was raised to $66 per acre. The annual payments are: First, $5.50; second, $1; third, $2; fourth, $3.50; fifth, $5; sixth, $7; seventh, $9; eighth, $10; ninth, $11; and tenth, $12 per acre.

In addition to the regular payments, a charge of $10 per acre was made for the lands on the Indian reservation, to be paid at the rate of $1 per acre per year. The annual charge for maintenance and operation has been fixed at $1 per acre and it will be adjusted from time to time in accordance with the needs for funds.

The town of Bard originated with settlement of the reservation. Underground water is abundant for domestic use and can be secured from wells not over 30 feet in depth.

PALO VERDE VALLEY.

Palo Verde Valley is situated on Colorado River and is chiefly in Riverside County, but the southern end reaches into Imperial County. It is 275 feet below sea level. The valley is limited on the west by the abrupt change in level to the mesa. Soils and climate are much like those of Yuma and Imperial Valley, the resemblance being a little closer to Yuma. The soil is Colorado River silt mixed with sand. The combination is one of fertility and good porosity. The long hot summers stimulate the growth of plants and a great variety of crops thrive when supplied with moisture. The annual rainfall is less than 3 inches and of no value to crops. Alfalfa, grain, and cotton are now the principal crops of this newly irrigated section.

The principal towns are Blythe and Palo Verde, but settlements have been started at Neighbors and Rannels. This region is not yet reached by railroad. Blythe is reached by stage from Glamis on the Southern Pacific, distant 60 miles, and from the Santa Fé near Parker, 36 miles away.

The irrigation system was begun for the Blythe ranch when it was in individual ownership. This property of 40,000 acres was later acquired by the Palo Verde Land and Water Company, which continued the construction of the canal system. The company proposes to extend the system for the reclamation of 60,000 acres of land in addition to the Blythe lands. The organization of the Palo Verde Mutual Company was caused and the existing ditches and water rights of the land and water company were exchanged for 60 per cent of the mutual company's stock. The mutual company must complete the irrigation system for the entire 100,000 acres. The mutual company stock is issued to purchasers of Blythe ranch lands or is sold to settlers on the other lands, by the land company. Shares have a par value of $10, there being one share per acre. The stock is assessed for maintenance and operation at the rate of $2 per acre per year. The number of shares issued is 2,500. A share represents the right to the one hundred thousandth part of the water in the canal and the stock is appurtenant to the land. Water has not been measured and the duty of water under the system is not known.

Water rights are based on riparian land as well as appropriation and use, inasmuch as the 40,000-acre tract has a 17-mile frontage on the river. Farms average about 80 acres.

The headgate of the Palo Verde canal was constructed in a rock cut at Black Point. The river at the intake is unusually wide and the fluctuation in the water level is about 7 feet. The canal is on a grade of .02 per cent and has a capacity of 35 second feet. The canal first leads to Olive Lake, 5 acres in area, which is utilized for a settling basin. The distributing system branches out below the lake. The system was capable of irrigating 20,000 acres in 1909. Extensions have been made since and will continue to be made as the lands are settled. Some of the lowlands subject to overflow from the river are protected by a levee. Questions arose recently regarding the character of some of the overflowed land. Claims were made that it should be State property, but the Government decided it was only subject to periodic overflow and was Government land open to entry. The lands in question embraced about 90,000 acres, much of which had been filed upon.

Underground water is abundant at depths of 10 to 20 feet. The water is excellent for domestic use and pumping for irrigation is possible.

The area irrigated in 1912 is 9,000 acres. The valley contains 85,000 acres of irrigable land, all of which will be irrigated.

CHUCKAWALLA VALLEY AND PALO VERDE MESA.

Palo Verde Mesa consists of two benches, the first rising about 40 feet above the valley and the second 10 or 15 feet above the first. Chuckawalla Valley is farther inland and is connected to the mesa through a gap between the mountains. The two sections have much resemblance in their conditions. The soils are little more sandy and less loamy than the land of Palo Verde Valley. The soil is adapted to the culture of fruits, as it takes water very freely, has natural drainage, is fertile, and can be kept in the good mechanical condition required for orchards.

Chuckawalla Valley is almost surrounded by mountain ranges and is well protected. Springs flow at several points at the rim of this basin and water is procured for domestic use from dug wells 30 feet in depth in places and may be secured at less than 200 feet in any part of the basin. A well was bored to a depth of 1,029 feet in the hope of securing artesian water. The water rose near to the surface, but did not flow. Boring to a greater depth would possibly give artesian water.

Water may be had in abundance from wells on Palo Verde Mesa about 130 feet in depth.

Chuckawalla Valley is from 300 to 500 feet in elevation. Some dry lake beds or areas with poor drainage are found in the low part of the basin.

The best lands are above on the slopes. The land of both valley and mesa is free from alkali in harmful quantities and is covered with a growth of greasewood, sage brush, and cactus. Certain areas of Chuckawalla Valley support ironwood trees.

The first proposal to irrigate Chuckawalla Valley and Palo Verde Mesa was by the Chuckawalla Development Company. Extended surveys were made for bringing water from Colorado River. It was proposed to construct a storage reservoir at Bulls Head, 12 miles above Fort Mojave, by placing a dam across the river channel. Electrical power was to be developed by water from this reservoir and transmitted to pumping stations on a canal to take water from the river 20 miles above Ehrenberg, Arizona, the pumping being necessary to elevate the water to the mesa and Chuckawalla Valley. The project was for 200,000 or more acres of land in valley and on mesa. The project has been abandoned on account of the difficulty of securing a suitable foundation for a dam at Bulls Head and the cost of the work.

All of the land belonged to the Government and on the strength of the preliminary work of the development company nearly 300,000 acres of land was soon filed upon. The entrymen have now formed an association for the purpose of making their own investigations with a view to procuring water for irrigation. They propose to form an irrigation district and issue bonds to the amount of $6,500,000 for the construction of a canal system for 220,000 acres. The canal is to be filled by pumping from Colorado River, near Ehrenburg.

The irrigation district plan is not so well adapted to the reclamation of a desert as to the acquisition of a system which has been already financed, for the reason that the desert land has so little taxable value before water is applied. The disposal of the bonds may be a difficult matter.

Chuckawalla Valley has 246,000 acres and Palo Verde Mesa 106,000 acres of agricultural land. With pumping from wells on the mesa 250,000 acres or a greater area may eventually be reclaimed, provided no trouble is experienced in securing right to water from the river.

OTHER COLORADO RIVER LANDS.

Three other areas bordering Colorado River seem worthy of consideration as agricultural lands. The first above Palo Verde Valley is the tract bordering the river at Calzona in Riverside and San Bernardino counties. It has an area of 18,425 acres. The soil is similar to that of Palo Verde Mesa, but the slope to the land is not so even as that on the Palo Verde Mesa. The climate is much like that of Palo Verde. Many desert filings have been made in the past and some have been abandoned. Underground water is not counted on for irrigation. The promoters of Calzona are preparing to pump water from Colorado River for the town and for irrigation of 6,000 acres. Calzona is on the Parker line of the Santa Fé Railroad and is a trading point for mines in the surrounding mountains and for the Colorado River Indian Reservation.

The next area going northward is Chemehuevis Valley. It is on Colorado River in San Bernardino County, about midway between Needles and Parker, and contains 5,060 acres. No development has taken place. The soil is river silt, but prospects for irrigation in the near future are not encouraging, as the nearest railroad is 25 miles distant. Little is known of the underground waters, but it is probable that the supply would be good on this tract adjacent to Colorado River.

A strip of valley and mesa land borders the Colorado northward from Needles and is a part of Mojave Valley, of which the greater portion is in Arizona. The valley also extends below Needles, but this is not classed as agricultural, as it is subject to overflow by the river. Valley lands near Needles are also endangered in the flood season, and in recent years the river has been cutting toward the west. More levees are needed for protection from floods. This area contains 89,065 acres, of which a few small tracts are irrigated and producing alfalfa. Some of the land is broken and washed and its classification is doubtful.

The valley supports willow and other brush. Underground water is plentiful at a depth of 20 feet.

Summary for Colorado Desert.

Area.	Agricultural land. Acres.	Irrigated land. Acres.	Estimated area that will ultimately be irrigated. Acres.	Possible sources of water for further development.
Coachella Valley and desert	167,200	4,000	10,000	Underground waters.
Imperial Valley	816,000	260,000	400,000	Colorado River, San Felipe and Carisco creeks.
Yuma Indian Reservation	18,000	6,500	16,500	Colorado River.
Palo Verde Valley	85,000	9,000	85,000	Colorado River.
Chuckawalla Valley and Palo Verde Mesa	352,000	----------	250,000	Colorado River and underground waters.
Other Colorado River valleys	112,550	100	5,000	Underground waters of Colorado River.
Totals	1,550,750	279,600	766,500	

MOJAVE DESERT.

Mojave Desert, unlike Colorado Desert, can not depend upon a large river for water for irrigation. Although the largest of the divisions, it has been the least exploited and developed and it has the least prospect of becoming a highly productive country. Aside from a small portion adjacent to Mojave River, lands on this desert must be reclaimed principally by development of underground waters. It is impossible to even approximately estimate the amount of such waters available, as the usual methods of determination are very unreliable in a country with so little rain and such rapid evaporation of moisture from the heated sands.

The proper classification of the lands is difficult and at best is only a rough approximation. Where it is certain that water is available, the alkalinity of land is in some cases undetermined. It has been impossible to examine all of the areas personally within the time allotted for the investigation and it has been necessary to rely upon information from other sources.

The idea that this desert is one vast plain of heated sand and alkali flats, without water either above or below the surface, is erroneous. Although a territory of great extent, it is broken by hills, buttes, and mountains of no mean elevation and is dotted by innumerable depressions or so-called dry lakes, where surface waters accumulate and sink after showers and in which springs burst forth to make oases. Only the more important areas are included.

Development on the desert has recently been stimulated by the discovery that underground waters could be secured at reasonable depths in many of the sinks, and by the demonstration of the fact that apples and other deciduous fruits could be produced in the Southwest at elevations of 2,000 to 4,000 feet of a quality to compete successfully with those of northern states.

MOJAVE RIVER VALLEY AND ADJACENT MESAS.

This area includes the valley and desert sink of Mojave River, together with the mesa lands on both the east and west, at the northern base of San Bernardino and San Gabriel mountains. The valley of Mojave River should not be confused with Mojave Valley on Colorado River, near Fort Mojave. The bench immediately east of the valley opposite Hesperia is known as Apple Valley, although in reality it is a mesa. Farther to the east is the Box Springs country. The elevation of the entire strip of mesa on both east and west sides of the river is about 3,000 feet. Frosts are too severe for citrus fruits, but apples, pears, cherries, apricots, alfalfa, and vegetables are grown. The mesa lands have a uniform slope and are well suited to irrigation. The desert in its native state is covered with a growth of giant yucca, greasewood, or creosote bush and other brush. The expense of clearing land is not high.

Mojave River lands are adapted to alfalfa. The normal discharge of the stream is absorbed below the canyon, but the water is brought to the surface above Victorville Narrows. The water appears and disappears alternately along the river course, but the surface flow gradually diminishes until completely lost at Cronese Sink on the desert.

The areas of agricultural land are Mojave River Valley 195,000 acres; Mojave River Sink 40,000 acres; East Mesa 130,000 acres; West Mesa 545,000 acres. The area irrigated has not been very definitely determined, as the irrigated lands are scattered and a complete canvass could not be made, but it probable exceeds 10,000 acres.

The Hesperia Land and Water Company was originally organized for the sale of 3,000 acres and the irrigation of 30,000 acres of land. About 2,000 acres were sold. Water was sold to purchasers at fixed rates. The water was diverted from Mojave River and conveyed in pipes. The Hesperia Company has been succeeded by the Appleton Land, Water, and Power Company, which proposes to store water in the mountains for power development and for the extension of irrigation near Hesperia and the projected town of Appleton. A new main conduit consisting of 30-inch steel pipe is being laid. The operations of this company are being objected to by the Arrowhead Reservoir and Power Company and ranchers with lands riparian to the river.

A number of small ditches take water from the river for alfalfa irrigation from Hesperia to Cottonwood. Drafts are also made on the subterranean flow at various points. Works were constructed in the river bed near Daggett about 15 years ago for the collection of underground water by a subsurface flume.

The Mojave River Land and Water Company proposes to irrigate 20,000 acres by pumping along the lower river. Surveys have been made for the delivery of water to each 160 acres. Wells are being drilled and pumping plants installed at a rapid rate throughout the entire valley and adjoining mesa, the greatest activity being shown in the lower valley near Barstow, Daggett, and Otis, and in Apple Valley southeast of Victorville. Good wells are secured near Kramer and Hinckley west of Barstow. Wells several hundred feet deep near Barstow are reported to produce 150 miner's inches. Water can be had at shallow depths along the river near Daggett and Otis. A number of flowing wells are located just above the Victorville Narrows. The water stands at less than 10 feet from the surface in other wells and they produce 150 miner's inches on being pumped. Apple Valley has a good supply of underground water. Excellent wells are secured by boring about 500 feet in depth. The water must be lifted from 100 to 200 feet, depending on location. The borings show no rock and plenty of water bearing sand and gravel. A well at the Box Springs ranch gives a light flow and water may be had at less than 100 feet in other sections of the Box Springs country.

In general underground water is not so abundant on the west mesa. Water is reached at 30 to 200 feet, the depth being greatest toward the mountains on the south. Both dug and drilled wells have been made in this section. Ditches are being constructed to drain Cronese Lake in order that the lands of the basin may be farmed. Lands throughout the valley and mesa are being acquired under the Desert and Homestead acts with the expectation of growing alfalfa and deciduous fruits. The rainfall is about 8 inches. One miner's inch of water is sufficient for 2 or 3 acres of alfalfa and 5 to 10 acres of orchard, depending on the method of application.

The most important single work affecting this region is the project of the Arrowhead Reservoir and Power Company in San Bernardino Mountains. The Arrowhead dam is nearly completed and is located on Little Bear Creek, a tributary of Mojave River. The dam is of the hydraulic-fill type with concrete core wall and is one of the largest of its kind ever constructed. The drainage of several other tributaries besides Little Bear Creek is diverted into the reservoir through tunnels. The total drainage basin is 86 square miles. The capacity of the reservoir is 61,000 acre-feet. The company, after making measurements of rainfall and run-off at many points in the watershed and of loss by evaporation for a period of sixteen years, expects to deliver 40 second feet continuously from the reservoir. The water will be used first for power, and afterwards for irrigation. It is not known what lands will receive the water, but it will probably be used along Mojave River. The entire mountain watershed of Mojave River is 470,000 square miles. The summer discharge at Victorville is usually over 30 second feet. The mean annual discharge of the river from 1899 to 1905 was 69,400 acre-feet. A reservoir site is located above Victorville Narrows, but the depth to bedrock in the gorge has not been determined.

ANTELOPE VALLEY.

Antelope Valley is the southwestern part of Mojave Desert and is an undulating plain at an elevation of from 2,300 to 4,000 feet above sea level. It lies immediately north of the San Gabriel Mountains of the Sierra Madre Range and east of Tehachapi. Its northern and eastern limits are not so well defined but for the purpose of this report the division line between Antelope Valley and Mojave Desert is taken as the San Bernardino County line. It is possible that the line between the drainage of the two areas if known would include a small portion lying in San Bernardino County, but the major portion of the valley lies in the northeastern corner of Los Angeles County and the southeastern corner of Kern County. The valley is covered with a desert growth of sage, creosote, yucca, and other desert brush; also salt grass in some of the low areas. It has a maximum length of 60 miles and a width of from 20 to 3 miles. It contains 485,500 acres of agricultural land and of this amount 4,629 are irrigated. The land has a gradual fall from west to northeast at a rate of about 15 feet per mile until the eastern portion is reached. Here the surface is almost level. The plain is broken by Antelope, Rosemont, Lovejoy, and Black Buttes. The lower portion of the valley about Rosemont, Buckhorn, and Rodgers dry lake beds is an artesian area 240 square miles in extent.[1] Some salt is found in the lower areas but it is principally white alkali and it is believed that all of the land can be reclaimed. Land owners claim that two years of cultivation overcomes the damaging effect of the salts to such an extent that ordinary crops can be grown. This section is visited by winds and hummocks are formed about the desert brush in the central portion of the valley. Bench lands border the base of Tehachapi Mountains and the San Gabriels as far east as Palmdale. The benches are not visited by such heavy frosts as the lower areas and they are better suited to fruit growing. The lake beds sometimes contain water to a few inches in depth after storms and it is not certain that the lands occupied by them can be utilized for agriculture. The Rosemond and Turner dry basins have not been included in the area of agricultural land. Much of the land bordering the Southern Pacific tract is yet railroad land. Aside from the La Liebre ranch and Palmdale Colony tract the land holdings are from 40 to 640 acres. Small farms are increasing in number. Some Government land remains open to entry in the outlying areas.

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[1] U. S. Geol. Survey, Water Supply Paper No. 278.

The chief crops grown are alfalfa, grain, almonds, pears, and apples, while alfalfa, pears, and apples are irrigated. The elevation is too great for citrus fruits. The irrigated almonds along the base of the San Gabriel Mountains west of Lancaster produce fairly well, although many orchards in this locality have been abandoned. Alfalfa produces five crops and averages from one to one and one half tons per acre for each cutting. The Little Rock Irrigation District supplies water by a ditch from Little Rock Creek to about 700 acres. About 300 acres of alfalfa is grown along Big Rock Creek. It is estimated that 1 miner's inch of water is sufficient for 5 acres of orchard where the water is piped. Under pumping plants it is stated that 1 miner's inch of water is required per acre for the first two years in irrigating new land after which time two thirds miner's inch per acre is sufficient. All of the pumping plants in this valley have been installed within the last three years. The limits of underground water have not been determined. The depth to water increases away from the artesian area. Water must be lifted from 40 to 70 feet near Neenach, 24 miles west of Lancaster. The lift near Palmdale is about 70 feet. New wells are continually being drilled where it is anticipated that the pumping lift will not be over 50 feet. About 105 pumping plants have been installed. Many artesian wells are grouped about Lancaster and Esperanza and others are scattered throughout the artesian area, the total number of flowing wells being 300.

The surface flow of Big Rock Creek has been used by irrigators for some 20 years and rights are based on this long-continued use. The flow of Little Rock Creek was formerly divided between the Little Rock Irrigation District and the Palmdale Colony Company, but the latter allowed their rights to lapse through disuse and the district now claims all of the natural flow of the creek. A reservoir site with capacity of 50,000 acre-feet is reported as being located on Rock Creek where its flood waters might be stored. Another site with capacity of 12,000 acre-feet is located immediately south of Palmdale and this basin was formerly used to store water from Little Rock Creek. It was intended to irrigate 10,000 acres about Palmdale from this supply. Meagre information is had regarding other reservoir sites located on Cottonwood and La Liebre creeks. It is proposed to develop water on these streams for use on the La Liebre ranch of 10,000 acres. The Little Rock Irrigation District is extending its acreage and ultimately expects to have 3,500 acres under its ditch. It is proposed to revive the old Antelope Valley Water Company which in the nineties organized the Palmdale Colony and to irrigate 3,500 acres of land from the Palmdale reservoir.

It is difficult to estimate the available water for Antelope Valley The rainfall varies from minimum of 3 inches on the desert to a maxi mum of 24 inches in the mountains. The watershed is 620 square miles. Numerous small streams which reach the plains from the mountain slopes are absorbed in the sands. Assuming a rainfall of 12 inches over the 260 square miles and 20 per cent of this as the amount reaching the underground basins, 33,280 acre-feet would be added annually. The ultimate irrigated area is estimated at 40,000 acres.

DESERT BASINS IN SAN BERNARDINO COUNTY.

Mesquite Valley borders the Nevada State line in the extreme northeastern corner of San Bernardino County. It contains 30,000 acres of Government land, none of which is irrigated. It is a desert basin with no surface outlet and is at an elevation of 2,500 feet. Both alkali and hardpan are reported to be present in localities. Springs are located in Kingston or Nopah Mountains, but little is known regarding underground waters, and this would be the only source of supply for irrigation. Mesquite Valley is 25 miles distant from the Tonapah and Tidewater Railway.

Ivanpah Valley is on the Salt Lake, Los Angeles and San Pedro Railroad in San Bernardino County near the Nevada line. It is at the foot of the Providence and New York ranges and drains to a dry lake bed within the area. It contains 223,000 acres, none of which is irrigated. The land has a good slope for irrigation and supports cactus and desert brush. It is all above the 2,900 foot elevation. Springs and creeks discharge from 1 to 3 miner's inches throughout the summer at the rim of the basin. Underground water is secured at a depth of 75 feet in the low area and at not over 200 feet on higher lands. Some wells are being drilled and pumping plants installed for the irrigation of small tracts. Plans are announced for the construction of a tunnel in Providence Mountains in the hope of developing 100 miner's inches of water.

Barnwell Sink is 25 miles northwest of Needles in San Bernardino County at an elevation of 3,000 to 4,000 feet. It contains 154,000 acres, of which none is irrigated. The land slopes well for irrigation and is not damaged by alkali. In late years filings were made and some were abandoned. Attempts were made to dry-farm lands, which resulted in failure. Later water was reached at 40 feet in a well 220 feet deep, and several hundred acres were seeded to grain and alfalfa to be irrigated. The idea prevails that underground water conditions are fairly good in the western part of the basin. The watershed includes drainage from the New York and Piute Mountains on the north and east. Piute and Vontrigger Springs are among the best on the desert and are drawn upon by the railroad. Barnwell Sink is on a branch of the Santa Fe Railway.

A desert sink is located southwest of Needles in San Bernardino County, and another is in Riverside County touching the San Bernardino County line. Both are 10 to 15 miles from Colorado River and neither is reached by rail. Each contains 115,000 acres. The soil ranges from shifting sand to sandy loam and the land belongs to the

Government. Dry farming was tried and failed in the northern sink. Little is known of underground waters, but they are reported at depths of 200 to 500 feet. The basins are 800 feet above Colorado River and underground water must be relied on if land is irrigated.

DESERT BASINS IN KERN COUNTY.

Desert Springs Valley is between Mojave and Randsburg on the Nevada and California Railroad. It is in the southeastern corner of Kern County and east of the Los Angeles aqueduct. It is a basin that slopes northward to Dry Salt Lake at the rate of about 30 feet per mile. It is just north of Antelope Valley and has an elevation of 2,000 to 2,900 feet above sea level. Some of the land was filed on about two years ago and a few small pumping plants are irrigating tracts of 5 to 10 acres of alfalfa each.

The total area is 119,000 acres and about 200 acres are irrigated. Small canyons enter the basin from the mountains on the southwest. Water is secured at from 100 to 200 feet toward Dry Salt Lake; but near Mojave it is at greater depths and in limited amount. Alkali is found near the lake and hardpan underlies the land at varying depths.

Indian or Salt Wells Valley is on the Nevada and California Railroad and east of the Los Angeles aqueduct in the northeast corner of Kern County. It is a basin in which surface water accumulates in so-called dry lakes. The area is 112,000 acres. About 500 acres of alfalfa is irrigated by settlers who filed on Government land in 1910. Injurious salts are found in the eastern portion and hardpan is present at depths of several feet. This area has a fairly good watershed on the west. Underground water is secured at 150 to 200 feet, while water in limited amount is secured in some places at 30 to 40 feet.

DESERT BASINS IN INYO COUNTY.

Rose Valley is on the Nevada and California Railroad and borders the Los Angeles aqueduct between Haiwee Reservoir and Little Lake. It is 15 miles south of Owens Lake and in Inyo County. The land drains to Little Lake. The elevation is 3,000 to 3,700 feet. The basin has some characteristics of both a mountain valley and Mojave Desert land. Settlers who have made desert filings are scattered over the area and have small pumping plants. The basin contains 21,000 acres, of which 100 or more acres of alfalfa are irrigated. Underground water is secured at depths of 150 feet.

Twelve Mile or Chicago Valley is east of the Tonopah and Tidewater Railroad and between the Funeral and Kingston ranges in Inyo County. It contains 8,100 acres, of which 60 acres of alfalfa, grapes, and vegetables are irrigated with water from Resting Springs. The drainage is into a dry lake bed. Nearly all of the land remains in title of the Government. The elevation is over 2,200 feet. Underground water in quantities for domestic use can be had at depths from 100 to 200 feet. The extent of the waters has not been determined sufficiently to justify a statement regarding extensive irrigation development.

Pahrump Valley and its extension, Stewart Valley, contain 20,400 acres in Inyo County, none of which is irrigated. A much larger area is in Nevada, but the best land is in California. This area is 10 miles east of the Tonopah and Tidewater Railroad and Amargosa River. The elevation is from 2,400 to 2,600 feet. The land belongs to the Government. The drainage is to a dry lake. Springs are located in the basin, but data are not available on underground water.

Amargosa Desert is principally in Nevada, but the part in Inyo County, California, contains 15,000 acres. No irrigation development has taken place. The area considered as agricultural land is all north of Scranton on the Tonopah and Tidewater Railroad. The desert is higher than Amargosa Valley and has an elevation of 2,400 feet. The land slopes to the east at the rate of about 50 feet per mile. The desert is at the base of the Funeral Range. Little is known of the possibility of securing water for irrigation. Amargosa Valley is in Nevada and California. The portion in California is not classed as agricultural. Amargosa River rises in Nevada and sinks in California, its waters finally reaching Death Valley. Information regarding Death Valley is meager. This land has not been classed as agricultural.

Summary for Mojave Desert.

Area.	Agricultural land. Acres.	Irrigated land. Acres.	Estimated area that will ultimately be irrigated. Acres.	Possible sources of water for further development.
Mojave River Valley and mesas	910,000	10,000	50,000	Storage on Little Bear Creek and Mojave River and underground waters.
Antelope Valley	485,500	4,629	40,000	Storage in mountain canyons and underground waters.
Desert basins in San Bernardino County	637,000	----------	8,000	Underground waters.
Desert basins in Kern County	231,000	700	10,000	Underground waters.
Desert basins in Inyo County	64,500	160	5,000	Underground waters.
Totals	2,328,000	15,489	113,000	

SUMMARY FOR SOUTHERN CALIFORNIA.

The foregoing report deals with the irrigation resources of southern California in so much detail that it was thought best to outline general conditions in the introduction at the beginning of the report, and also in the briefer introductions and in the summaries concerning each of the divisions into which this portion of the State was segregated for purposes of this study. The following summary gathers together the areas of agricultural land, the areas irrigated, and the areas it is estimated will ultimately be irrigated:

Summary of agricultural, irrigated, and estimated irrigable lands of southern California.

Area.	Agricultural land. Acres.	Irrigated land. Acres.	Estimated area that will ultimately be irrigated. Acres.
Santa Barbara and Ventura counties	509,250	49,656	322,500
Los Angeles and San Gabriel River lands	441,986	167,454	381,500
Santa Ana River lands	876,671	213,407	279,000
San Diego County	363,668	19,880	87,100
Colorado Desert and River valleys	1,550,750	279,600	766,500
Mojave Desert	2,328,000	15,489	113,000
Totals	6,070,325	745,486	1,949,600

WATER RESOURCES INVESTIGATIONS IN CALIFORNIA.

The measurement of the flow of streams in California was begun by the California State engineer in 1878, in accordance with the law requiring him "to investigate the problems of the irrigation of the plains, the condition and capacity of the great drainage lines of the State, and the improvement of the navigation of rivers." The work was restricted to a few localities in the Sacramento and San Joaquin River basins, the principal station being on the Sacramento at Collinsville.

The State Engineer's office was discontinued in 1884, and practically no further stream studies were made until 1894, when engineers of the United States Geological Survey were sent into California and made a few measurements of streams in the semi-arid parts of the State. The following year the Geological Survey established a station on the Sacramento River at Red Bluff and since that time has gradually extended the work as additional funds were available.

The early stream gaging work of the United States Geological Survey was primarily to obtain data in the interest of irrigation. Gaging stations were established in the foothill regions on the more important tributaries of the Sacramento and San Joaquin rivers, and in the southern part of the State. Several reservoir sites, principally in the Sacramento drainage, were surveyed as it was early realized that the low water flow would be insufficient for irrigation purposes.

The appropriations by Congress for water resources investigations were so limited that, unaided, the Geological Survey was unable to carry on as extensive investigations as were necessary in California. Realizing that the development of the State largely depended upon the utilization of its vast water resources, the legislature has from time to time made appropriations for coöperation with the Geological Survey, through the State Engineer, in these investigations. These funds were sufficient to maintain gaging stations on the more important streams available for irrigation.

The reclamation of large areas of arid and semi-arid lands in the State has greatly accelerated the development of California. Cheap power must be available if the remarkable growth of the State is to be maintained. Although but a small per cent of the possible water power has been developed, California now ranks as the second State in the Union in the total water power development.

Stream flow measurements for water power development must be on the headwaters and tributaries far above the foothill stations maintained for irrigation. As a rule the desired stations are at isolated points and difficult to reach. On this account the investigations are expensive to maintain. Through the coöperation of the United States Forest Service valuable water power records are being obtained, which would be practically impossible to secure in any other way. Considerable stream gaging work is being carried on by private parties and corporations throughout the State. Many of these coöperate with the Geological Survey or furnish their records for publication. It is realized that legitimate developments will be assisted in this manner.

The Conservation Commission, in making its inventory of the natural resources of the State, at once realized that additional stream flow data were imperative and hence in August, 1911, entered into the following agreement with the Geological Survey:

WHEREAS the United States Geological Survey is authorized by Congress to gage the streams and determine the water supply of the United States and to prepare reports on the best methods of utilizing the water resources, and in pursuance of that work has organized and equipped a corps of engineers, the members of which have become specially trained in the technical necessities of such investigations, and is maintaining an office at San Francisco, California, for the purpose of facilitating such investigations in that State; and

WHEREAS the Conservation Commission of the State of California is authorized to make an investigation of the natural resources of said State, and for this purpose requires:

First, a complete digest of all available data concerning the flow of the streams in the State of California;

Second, records of streams not hitherto investigated;

Third, surveys of the streams showing slope, topography, and such other data as may be necessary to determine water-power and storage possibilities along said streams; and

WHEREAS the Conservation Commission requires the information aforesaid at an earlier date than the same can be furnished by the Geological Survey with its present appropriation for this purpose, or by the Conservation Commission through independent effort and without the organization and equipment of the Geological Survey; and

WHEREAS the Geological Survey and the Conservation Commission believe that the most economical, expeditious, and satisfactory results may be secured by coöperation in such investigations;

Therefore, the following agreement:

This Agreement, made and entered into this seventh day of August, 1911, by and between the United States Geological Survey, the first party, and the Conservation Commission of the State of California, the second party, *Witnesseth*:

First—That the first party shall recommend to the second party such trained men as may be needed to prosecute the investigations aforesaid, such men to be additional to those employed in the regular work of the first party;

Second—That the first party shall advise with the second party in regard to investigations which the latter desires to maintain, and to direct the course of, and supervise the same in accordance with the methods used by the first party in similar investigations;

Third—That the first party shall furnish such instruments, supplies, equipment, forms, and stationery as may be needed in the work; provided, that it is understood that this shall not include the purchase of any special equipment not usually required in the investigations of the first party;

Fourth—That the first party shall furnish to the second party at such intervals as may be requested by the latter reports of investigations in progress, and in addition thereto shall furnish on October 1, 1912, a complete report containing all data collected as a result of this agreement together with similar data already in possession of the first party;

Fifth—That the first party shall publish without cost to the second party in the regular Survey publications the results of all data collected under this agreement as soon as possible after the completion of the investigations hereunder provided;

Sixth—That the second party shall designate to the first party the nature and location of the investigations and studies which it may desire to have made and shall specify the sum of money which it desires to expend for each line of investigation;

Seventh—That the second party shall pay the salaries and expenses of all men appointed by it for the prosecution of investigations included in this agreement;

Eighth—That the second party shall pay for all special equipment necessary for the carrying on of the investigations aforesaid.

UNITED STATES GEOLOGICAL SURVEY.
(Signed) GEO. OTIS SMITH, Director.
CONSERVATION COMMISSION OF THE
STATE OF CALIFORNIA.
(Signed) GEO. C. PARDEE.
(Signed) FRANCIS CUTTLE.
(Signed) J. P. BAUMGARTNER.

In order to carry out the second provision of this agreement the Conservation Commission made an initial appropriation of $12,500. The new work was immediately begun by the Geological Survey and about 75 stations were installed on the headwaters and tributaries of the principal rivers of the State available for power and irrigation developments. Many of these stations were installed on streams which had not hitherto been investigated. The engineers, working under the directions of the Geological Survey, are employed, and their salary and necessary traveling expenses paid, directly by the State. The original appropriation was sufficient to maintain this new work for one year. In order that these investigations may be maintained at their present status until the State is able to make increased appropriations for this work, the Conservation Commission later alloted $10,000 additional. This amount, in addition to the regular funds, will insure the continuance of the present work until July 1, 1913.

The State of California now has available stream flow records adapted to all uses, including domestic water supply, irrigation, power, drainage, flood prevention, and navigation, at 289 points scattered through every portion of the State. The length of the records vary from a few months to several years. It is impossible to tell just how long it is necessary to maintain a gaging station in order that the absolute maximum and minimum, as well as the normal flow, may be determined. To be reliable, the record must extend over several years at least; and of course the longer the record, the more valuable it becomes.

The State Board of Control (Water Powers), now the State Water Commission, appropriated $4,000 to assist the Geological Survey in carrying out the first provision and $7,500 for the Survey as provided for in the third provision of the coöperative agreement. The State Engineering Department also furnished $2,500 for a survey of the San Joaquin River.

Maps of the following rivers have been prepared, showing the fall and the adjacent topography:

Pit River.
Middle Feather River, mouth to Nelson Point.
American River and tributaries.
Tuolumne River, Lagrange dam to Hetch Hetchy Valley.
San Joaquin River.

As provided in the coöperative agreement, the Geological Survey has made "a complete digest of all available data concerning the flow of the streams in the State of California," and at an expense of about $16,000 for printing, has published the following Water-Supply Papers:

295. Gazetteer of surface waters of California, Part I, Sacramento River basin.
296. Gazetteer of surface waters of California, Part II, San Joaquin River basin.
297. Gazetteer of surface waters of California, Part III, Great Basin and Pacific coast streams.
298. Water Resources of California, Part I, Stream measurements in Sacramento River basin.
299. Water Resources of California, Part II, Stream measurements in San Joaquin River basin.
300. Water Resources of California, Part III, Stream measurements in Great Basin and Pacific coast river basins.

The gazetteers, papers 295-297, cover the entire State and embrace descriptions of all the streams named on the best available maps. Each stream is described as rising near the point at which its beginning is shown on the map, and the elevation at that point is given as the elevation of the source. It is, of course, recognized that this method does not give results of great precision, but it probably causes no greater errors in the determination of length and fall than would be caused by extending each stream to the head of the divide between its basin and that of the adjoining streams. It should be understood, however, that all statements of elevation, length, and fall are merely approximate. A complete list of the gaging stations maintained in each basin is included in these papers.

The stream measurement reports, papers 298–300, describe the streams that have been measured and the stations at which the work has been carried on, and presents the results of the studies of stream flow. The investigations of the quantity of water in the streams have been supplemented by studies of the climatic and other factors affecting stream flow, and a mass of valuable information has thus been collected affording data for all phases of hydraulic work. These reports contain all the stream flow data that have ever been collected by the Geological Survey in California to June 30, 1912. Many private records are also included in these papers.

Previous reports of the Geological Survey relating to the water resources of California have been published, as follows:

IRRIGATION.

17. Irrigation near Bakersfield, California. Grunsky.
18. Irrigation near Fresno, California. Grunsky.
19. Irrigation near Merced, California. Grunsky.
45. Water storage on Cache Creek, California. Chandler.
46. Reconnaissance of Kern and Yuba rivers, California. Olmsted and Mason.
68. Water storage in the Truckee basin, California-Nevada. Taylor.
86. Storage reservoirs on Stony Creek, California. Cole.
89. Water resources of the Salinas Valley, California. Hamlin.
219. Ground waters and irrigation enterprises in the foothill belt, Southern California. Mendenhall.

SURFACE WATERS.

17. Irrigation near Bakersfield, California. Grunsky.
18. Irrigation near Fresno, California. Grunsky.
19. Irrigation near Merced, California. Grunsky.
45. Water storage on Cache Creek, California. Chandler.
46. Reconnaissance of Kern and Yuba rivers, California. Olmsted and Mason.
58. Storage of water on Kings River, California. Lippincott.
59. Developments and application of water near San Bernardino, Colton, and Riverside, California. Part I. Lippincott.
60. Developments and application of water near San Bernardino, Colton, and Riverside, California. Part II. Lippincott.
68. Water storage in the Truckee basin, California-Nevada. Taylor.
81. California Hydrography. Lippincott.
86. Storage reservoirs on Stony Creek, California. Cole.
89. Water resources of the Salinas Valley, California. Hamlin.
116. Water problems of Santa Barbara, California. Lippincott.
147. Destructive floods in the United States in 1904. Murphy.
162. Destructive floods in the United States in 1905. Murphy.
237. The quality of the surface waters of California. Van Winkle and Eaton.

UNDERGROUND WATERS.

57. Preliminary list of deep borings in the United States. Part I (Alabama-Montana). Darton.
58. Storage of water on Kings River, California. Lippincott.
59. Developments and application of water near San Bernardino, Colton, and Riverside, California. Part I. Lippincott.
60. Developments and applications of water near San Bernardino, Colton, and Riverside, California. Part II. Lippincott.
89. Water resources of the Salinas Valley, California. Hamlin.
112. Underflow tests in the drainage basin of the Los Angeles River. Hamlin.
137. Development of underground waters in the eastern Coastal Plain region of southern California. Mendenhall.
138. Development of underground waters in the central Coastal Plain region of southern California. Mendenhall.
139. Development of underground waters in the western Coastal Plain region of southern California. Mendenhall.
142. The hydrology of San Bernardino Valley, California. Mendenhall.
149. Preliminary list of deep borings in the United States (Second edition, with additions). Darton.

181. Geology and water resources of Owens Valley, California. Lee.
219. Ground waters and irrigation enterprises in the foothill belt, southern California. Mendenhall.
222. Preliminary report on the ground waters of San Joaquin Valley, California. Mendenhall.
224. Some desert watering places in southeastern California and southwestern Nevada. Mendenhall.
225. Ground waters of the Indio region, California, with a sketch of the Colorado Desert. Mendenhall.
278. Water resources of Antelope Valley, California. Johnson.
294. Ground water resources of a portion of Owens Valley, California. Lee.

These papers are distributed free to persons interested in these data. A few of the early papers are now out of print but may be consulted at the principal libraries and at the offices of the Geological Survey at San Francisco and Los Angeles. Copies of the later publications may be secured through the local offices or from The Director, U. S. Geological Survey, Washington, D. C.

VALUE OF WATER RESOURCES INVESTIGATIONS TO THE STATE OF CALIFORNIA.

Among the purposes for which the results of the investigations of the water resources of California are requisite are domestic water supply, irrigation, water power (including mining), flood prevention, drainage, and navigation.

Domestic Water Supply.—The highest use of water is that of domestic water supply. This use of water has so broad a significance with respect to the general welfare that every citizen of our State is ultimately and intimately concerned. Our large cities are now spending large sums in surveys and construction to insure a more abundant and satisfactory water supply for municipal purposes. The time is not far distant when our smaller towns, which have as yet given little attention to this matter, will be forced to provide more satisfactory water systems if their rapid development is to continue.

Irrigation.—Many millions of dollars have been expended on irrigation systems within the State. Not all of this money was spent wisely, due largely to the fact that stream flow records were incomplete or almost wholly lacking. The integrity of any irrigation system is based absolutely on the amount of water available. Irrigation is largely responsible for the almost unprecedented development that has taken place in California. The cheapest and easiest developments have already been constructed. To greatly extend the irrigated areas it will be necessary to augment the natural low water flow of our streams. This may be accomplished by conserving the flood flow of our rivers and releasing the water as needed, during the irrigation season. In order that the reservoirs may be properly designed it is absolutely necessary to have reliable run-off records for the drainage area.

Water Power.—The development of the water power of the State is an economic necessity. Cheap power must be available for our factories, and for municipal and agricultural purposes. But few of our streams are now furnishing the needed power—not one is developed to its capacity. As in irrigation, only the more accessible and cheap projects have been constructed. The early developments were, of necessity, built near the points where the power was to be used. With the improved machinery and transmission systems now in use, power plants may be built at isolated points. Storage must also be provided during the low water season for large developments. Inasmuch as the amount of water power that may be made available is dependent on the flow of the rivers, the investigation of flow becomes a prerequisite in the judicious development of this source of energy.

Flood Prevention.—The annual damage from floods in California is very great. It is now recognized that to control our rivers during the rainy season it will be necessary to construct large storage reservoirs in the mountains and foothills. The water thus conserved will not only insure relief from disastrous floods but will be available for irrigation and power purposes during the period of low water flow. It is evident that any comprehensive study of flood prevention must be based on a thorough knowledge of stream flow, both in the contributing areas which furnish the water and along the great lowland rivers.

Drainage.—The study of run-off is the first consideration in connection with drainage projects. If by the drainage of a large area in any particular channel that channel becomes so gorged with water that overflow conditions are created in places not previously subject to inundation, then drainage results merely in an exchange of land values. This is not the purpose of drainage improvements.

Navigation.—It is obvious that the determination of stream flow is necessary to the intelligent solution of the many problems herein involved.

Water is without doubt the most abundant and most valuable mineral in the State. Unlike the gold of the Sierra or the oil of the south, the supply may remain undiminished from year to year if the principles of conservation are applied. Extensive areas of irrigable land await reclamation; powerful streams are yet to be harnessed to operate our railroads, mines, and factories, light and heat our homes, and serve us in many ways not at this time anticipated.

In order to interest capital in the development of the water resources of the State we must have definite and convincing data regarding the flow of all of the streams within our borders. Irrigation bonds, which at the present time are not an attractive investment, will be readily negotiable when reliable stream-flow records establish the success of the project.

To insure the continuance of the present prosperity of California and provide for the tremendous developments that are inevitable if wisely assisted, the State must adequately provide for the continuance of these investigations.

Subterranean Storage of Flood Water by Artificial Methods in San Bernardino Valley, California

By CHARLES H. LEE

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Subterranean Storage of Flood Water by Artificial Methods in San Bernardino Valley, California.

By CHARLES H. LEE.

The great value of the ground water resources of Southern California has been so fully demonstrated by their development and use during the last thirty years that there has grown up an urgent public demand for knowledge regarding them. The existence of ground water, its sources, extent, movement, and ultimate disposition have been until recent years things of mystery not only to the man who was financially interested in their development, but also to the engineer. The demand for information and the exceptional opportunity afforded in southern California for scientific study of the principles governing ground water have led to investigations of the subject by various branches of the United States Government as well as by other organizations. The results of such investigations have made possible certain definite conclusions which have been sufficiently verified to be accepted as fact.

The commercial ground waters of southern California occupy the voids around the particles of gravel and sand filling the closed structural basins represented by the topographic valleys.[1] Each of these basins is a subterranean reservoir for ground water whose supply is water which percolates downward from flowing surface streams and from precipitation upon the surface of the gravels.[1] The natural outlet from these reservoirs is by spring and seepage flow into surface channels, by evaporation from damp soils and vegetation and, to a limited extent, by underflow.[2] The average annual rate of recharge by percolation equals the aggregate rate of outflow through these various available channels.[2] It follows from these facts that water artificially extracted from a basin either by pumping or through artesian flow, which does not return by percolation, reduces by that amount the volume of water passing from the basin by way of natural channels. It is also apparent that the average amount of water artificially drawn from a ground water reservoir can not exceed the rate of recharge less the natural overflow without seriously lowering ground water levels.

The amount of water developed from many of the large basins of southern California is dangerously near the limit, so that methods of conserving and increasing the available supply are necessary. This can be accomplished artificially either by the reduction of natural evaporation losses from areas of shallow ground water, or by increasing the volume of water percolating into the gravels. Both methods can and are being employed to increase the volume of commercially available ground water. This paper describes the methods used to artificially increase the supply by percolation from waste flood water in the San Bernardino Valley, California, discusses the observed effect of the work already done and its future possibilities.

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[1] Mendenhall, W. C., Water-Supply Papers U. S. Geol. Survey Nos. 137, 138, 139, 142, 225.

[2] Lee, Charles H., Water-Supply Paper U. S. Geol. Survey No. 294, 1912.

The investigations were carried on for the California State Conservation Commission under the direction of the writer who received valuable suggestions and advice from Mr. W. C. Mendenhall of the United States Geological Survey. Field work was commenced in March, 1912, and continued until November 1st. It is unfortunate that the available time and funds did not permit the extension of the work through a whole year, so that a careful field study of natural percolation from stream channels could be made and more complete well data gathered.

A large part of the detail field work was done by Mr. W. H. Spear, who also assisted in the preparation of maps and tables accompanying the report. Much valuable information was obtained from the Riverside Water Company, whose officers supplied all data in their possession which would throw light on the problem. The Water Conservation Association also furnished their records and rendered every possible assistance in carrying on the work.

WATER SPREADING.

The possibility of increasing ground water supply in southern California by artificially checking winter floods from the mountain canyons and spreading them over the porous gravel slopes first suggested itself to those interested in water development about twelve years ago. The extreme drought of the preceding years had led to the adoption of every conceivable method of water development. It was often observed that while stream channels were absolutely dry at points some distance from the mountains, there would be water flowing from the canyons above even in midsummer. The great reliability of ground water sources from which water could be obtained by artesian or pumped wells was also beginning to be apparent. The dependence of underground water supplies upon percolation from surface waters was a natural conclusion. Prof. E. W. Hilgard was probably the first to suggest in scientific literature the possibility of artificial replenishment of ground water supplies.[1] He proposed the storage of a portion of the waste flood waters of the Santa Ana River and Mill Creek by spreading them over the broad gravel slopes on either side of Santa Ana River, and regarded such a procedure to be as practical as surface storage in the mountains. The first attempt to put the idea into practice was made earlier than 1900 by the Gage Canal in diverting the Santa Ana floods on to the sandy wash below Orange Street. During the winter of 1901 some of the local water companies at Pomona did similar work on the débris cone of San Antonio Creek.[2] The results were encouraging in both localities and the work was continued. During the last few years similar work has been done on Lytle Creek, San Jacinto River, Santiago Creek, and San Gabriel River with satisfactory results. The idea has, therefore, passed the experimental stage as a method of flood water conservation. There remains, however, much engineering work to be done in devising methods and structures for diverting torrential flood waters and getting them into the gravels before reasonably complete conservation is possible.

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[1] Subterranean Water-Supply of the San Bernardino Valley, Report of Irrigation Investigations for 1901, Bull. U. S. Dept. Agr. No. 119, 1902, pp. 133-134.

[2] Tait, C. E., The Use of Underground Water for Irrigation at Pomona, Cal., Bull. U. S. Dept. Agr. Office of Exp. Stas., No. 236, 1912.

History of Santa Ana work.

The term "water spreading" has been used locally in the San Bernardino Valley to describe the diversion of flood waters from the channel of the Santa Ana River and their distribution over the adjacent lands. The work was carried on through the individual efforts of the Riverside Water Company and Gage Canal prior to the year 1909. The value of the work was recognized, however, and efforts were made by the local water companies and public-spirited citizens to provide for its future permanency. In the spring of 1909 the federal government by legislative act set aside certain public lands to be used as spreading ground. (Statutes 36, page 641, under date of February 20, 1909.)

> *Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled.* That all of the public lands in section eight, township one south, range two west, and in sections two, four, eight, ten, and twelve, in township one south, range three west, San Bernardino base and meridian, in the State of California, are hereby withdrawn from settlement and entry and reserved for the purpose of aiding in the conservation of the waters of the San Bernardino Valley: *Provided,* that this act shall not defeat any vested right which has attached under any pending entry or location.
>
> SEC. 2. That any individual or association of individuals, or any company or corporation may have the right under such rules and regulations as the Secretary of the Interior may prescribe, to conduct to said lands and to distribute over them any flood or waste waters not otherwise appropriated, and to build the necessary engineering works, for this purpose, to the end that said flood or waste waters may sink into the sands and gravels of said lands, thereby increasing and replenishing the supply of underground water in the San Bernardino Valley.

The lands thus set aside are practically worthless as agricultural land, being composed of wash material situated in the lowest depression of the valley to the north of the present flood water channel of the Santa Ana (Plate I). These lands are desirably located for the purpose of spreading water, however. They are described according to the public survey as follows: The southwest quarter, south half northwest quarter, northwest quarter southeast quarter, section 8, township 1 south, range 2 west, San Bernardino meridian; northwest quarter, north half southwest quarter, southwest quarter southwest quarter, north half southeast quarter, southwest quarter southeast quarter, section 12; southeast quarter southeast quarter, section 2; northwest quarter northeast quarter, south half northeast quarter, south half southeast quarter, southwest quarter, south half northwest quarter, section 10; east half northeast quarter, section 4; township 1 south, range 3 west, San Bernardino meridian, and comprise 1,240 acres. There are 80 acres of this in the east half northeast quarter, section 4, township 1 south, range 3 west, which are too high to be reached from Santa Ana River, but which lie across the channel of City Creek and can be used for spreading water from that stream.

An organization of citizens representing the local water companies was perfected June 2, 1909. It was named the "Water Conservation Association" and was organized as a coöperative association incorporated under the laws of the State of California. The articles of incorporation of the Association are as follows:

Know all men by these presents that the undersigned have associated themselves together to form a coöperative association, under and in accordance with the provisions of Sections 653b to 653l of the Civil Code of the State of California, and for that purpose hereby state and certify that:

(1) The name of said corporation is WATER CONSERVATION ASSOCIATION.

(2) The purpose for which it is formed is to conserve the surface and subsurface waters of the Santa Ana River and its tributaries situated in the counties of San Bernardino, Riverside and Orange, in the State of California:

a. By spreading the winter flood waters of said river and its tributaries, in the San Bernardino basin and elsewhere, over such lands adjacent to the channel thereof, as may be available for that purpose.

b. By securing control of such lands as may be necessary or desirable for such spreading, by purchase, lease, gift, donation, license or other methods, as may be found most desirable.

c. By the construction, maintenance and operation thereon of such works as may be found most advantageous and desirable for the purpose.

d. By prevention of waste of artesian and subsurface waters of said stream and the tributaries and sources of supply thereof, by the enforcement of the law of this State prohibiting waste of such water, and by securing evidence of such violation, and by the prosecution of the violaters of said law.

e. By such other methods of conserving the waters of said stream and its tributries as the Board of Directors of the association shall determine.

(3) The place where its principal business is to be transacted is the office of the Riverside Water Company, in the city of Riverside, county of Riverside, State of California.

(4) The term for which it is to exist is fifty years.

(5) The number of directors thereof is nine; three of whom shall be residents of the county of San Bernardino, three residents of the county of Riverside, and three residents of the county of Orange.

(6) The names and residences of the directors selected for the first year, and to serve until the election and qualification of their successors are as follows:

Names.	Residences.
Herbert N. Garstin	Redlands, Cal.
Geo. M. Cooley	San Bernardino, Cal.
Kenneth MacRae	Rialto, Cal.
W. G. Fraser	Riverside, Cal.
E. O. Rickard	Riverside, Cal.
Francis Cuttle	Riverside, Cal.
Wm. McLaughlin	Anaheim, Cal.
M. Nisson	Santa Ana, Cal.
E. E. Keech	Santa Ana, Cal.

(7) The amount which each member is to pay upon admission, as membership fee, is five ($5.00) dollars and each member signing these articles has actually paid in said sum, and that the interest and right of each member therein are to be equal.

This Association has been active in carrying on the work since its organization. An effort has been made to acquire lands lying between the areas reserved by the government so as to command a continuous strip one mile in width from the mouth of Santa Ana Canyon to the lower part of the valley (Plate I). So far there have been purchased from private ownership 680 acres, described as follows; west half southeast quarter, section 7, township 1 south, range 2 west; east half, and northwest quarter, section 11; and north half southeast quarter, northeast quarter of northeast quarter, section 10, township 1 south, range 3 west. There has also been secured the right to flood 240 acres owned by the city of Redlands, namely: south half northeast quarter, and southeast quarter, section 9, township 1 south, range 3 west. In addition to these lands, the Riverside Water Company owns the north half northwest quarter, and north half northeast quarter, section 9, township 1 south, range 3 west, upon which water is spread, and the Riverside Trust Company southeast quarter, section 8, southwest quarter and south half northwest quarter, section 9, township 1 south, range 3 west, which the Association has the right to flood. There are thus 2,640 acres of land now controlled by the Association along the Santa Ana River for the purpose of spreading flood water.

A notice of appropriation of water, as required by the laws of California, was posted by the Association October 3, 1911, at two points along the flood water channel of Santa Ana River on government land withdrawn from entry. The appropriation is for 25,000 miner's inches measured under a four-inch pressure, which is equivalent to 500 second feet. The text of the notice is as follows:

> The undersigned hereby claims 25,000 inches of water measured under a four-inch pressure flowing in the channel of the Santa Ana River at the several points where this notice is posted, to wit:
>
> 1st: At a point from which the quarter section corner on the south boundary line of section 8, T. 1 S., R. 2 W., S.B.M., bears south 14 deg. 0 min. E. 2,066 feet.
>
> 2d: At a point from which the quarter section corner on the east boundary line of section 12, T. 1 S., R. 3 W., S.B.M., bears north 47 deg. 10 min. east 1,810.10 feet.
>
> All such points and places of diversion being located on the public reservations of the United States.
>
> The purpose for which the same is claimed is to conserve such waters by spreading the winter flood waters of said river and its tributaries over certain lands, to wit:
>
> 1st: All of the public lands in section 8, T. 1 S., R. 2 W., and in section two, four, eight, ten and twelve in T. 1 S., R. 3 W., S.B.M., in the State of California.
>
> 2d: The west half of S. E. quarter of section 7, in T. 1 S., R. 2 W., S.B.M., State of California.
>
> 3d: The east half and the N. W. quarter of section 11, T. 1 S., R. 3 W., S.B.M., State of California.
>
> 4th: The N. E. quarter of the N. E. quarter and the N. half of the S. E. quarter of section 10, T. 1 S., R. 3 W., S.B.M., in the State of California.
>
> 5th: The south one half of the N. E. quarter and the S. E. quarter of section 9, T. 1 S., R. 3 W., S.B.M., in the State of California.
>
> The means by which it is intended to divert said waters is by a headgate or boulder dam, or both, ditch, iron pipe, and flume or any or either of such means as may be found most practicable. The size of such ditch at the first point of diversion named above is to be 16 feet wide and 3 feet deep and the size of such ditch at the second point of diversion named above is to be 20 feet wide and 3 feet deep, or larger if necessary, to carry the amount of water here claimed. In event that it should be deemed advisable to construct an iron pipe or flume, or both at such points of diversion, such iron pipe and flume are to be of sufficient capacity to carry the amount of water here claimed.
>
> Dated: October 3, 1911.
>
> WATER CONSERVATION ASSOCIATION.
> (Signed) By FRANCIS CUTTLE, President.

The Association has also been active in making provision for carrying on systematically and permanently the work of spreading water. A one-story concrete building with floor space about 20 feet wide and 40 feet long has been erected on the northwest quarter southeast quarter, section 7, township 1 south, range 2 west, land which is owned by the Association. Here men employed in the water spreading work are housed during the flood flow period and during the remainder of the year the building serves as a storehouse for tools and equipment used on the work. There has also been constructed a concrete headgate (Plate II, A) on the north bank of the Santa Ana near the mouth of the canyon at the point where the first notice of appropriation was posted. From this point, from a point opposite the junction of Mill Creek, the point of filing of the second notice of appropriation just below the Santa Fé Railroad bridge, rough ditches have been laid out and constructed to carry flood waters from the river channel on to the spreading grounds (Plate II, B). Concrete weirs (Plates II-A and III) with sheet steel crests have been installed in each ditch near the headgates. The middle diversion ditch crosses Orange Street, leading from Redlands to East Highlands, and an appropriate concrete culvert has been built at this point to carry the water underneath the road. In addition to making these various improvements the Association has kept a foreman and three or four men at work each season diverting and spreading flood water. The making of improvements and the work of water spreading have been done under the direction and direct supervision of Mr. C. S. Wilson, who is also superintendent of the Riverside Water Company. Mr. Francis Cuttle, of Riverside, is president of the Association and has taken a very active interest in the work, being largely responsible for the organization of the Association and the progress thus far attained.

The funds of the Association are derived from membership dues and from assessments levied upon the companies represented by the members, namely: Gage Canal Company, Riverside-Highland Water Company, Riverside Water Company, and Santa Ana River Development Company. The expenditures of the Association to June 12, 1912, have been very kindly furnished by Mr. Cuttle and as they indicate in a general way the size of the work they will be stated. The cost of all improvements, including the building, headgates, weirs, ditches and culvert, has been $4,371.66. The real estate has cost $2,853. The tools purchased to date amount to $163.83. Operating expenses for three seasons, 1909-10 to 1911-12, were $3,619.45; during the season 1911-12 were $903.46, and average about $1,200 per season. The total expenditures to June 12, 1912, were $11,007.94.

Method of spreading water.

The area over which the flood waters of the Santa Ana are being spread is the surface of the alluvial slope in front of the mouth of Santa Ana Canyon, which the river has built up with alluvial material carried by it from the canyon. The carrying power of a stream depends upon the velocity of the water, which in turn depends upon the grade. The grade of the stream in the canyon is so steep that boulders several feet in diameter are moved during severe floods and smaller boulders are carried along like pumpkins. The thundering of these stones as they strike one another in their mad rush can be heard several miles away. The larger boulders are all deposited at and near the mouth of the canyon at the apex of the cone. Smaller boulders, coarse gravel, fine gravel and sand are deposited in the order named as the stream velocity becomes less and less in passing down the slope. Oftentimes the channel will be so choked with débris near the canyon mouth that a subsequent flood finds a course for itself in an entirely new position on the slope. This channel in turn is abandoned for some other, leaving two parallel lines of boulders to mark the old position. Thus the upper portion of the slope is a jumble of boulder heaps and ridges. In passing down the slope there are small clear spaces of gravel and sand which increase in area to the lower slope, which is one broad unbroken surface of sand except where cut by the present river channel. The length of this slope from the mouth of the canyon to the valley floor is about ten miles and it occupies the full width of the valley, finally merging into the main San Bernardino Valley.

The first attempts at water spreading were made by the Riverside Trust Company for the purpose of increasing the supply of the Gage Canal. It was noticed that while the large floods were in progress the débris-laden water was confined to no definite channel on the middle and lower portion of the alluvial slope, but spread out in a broad sheet obliterating all existing channels. As the flood abated this sheet became comparatively shallow and a large proportion of the flow at the mouth of the canyon would be absorbed by the gravels before reaching the region of shallow ground water near the head of the Gage Canal. As the flow still further decreased, however, the stream would leave the canyon without a load of sand and gravel, and as it advanced down the slope would cut a more definite channel for itself in some portion of the broad flood channel. The broad sheet was thus concentrated into a relative narrow and deep stream with a minimum area of water surface in contact with the absorbent gravels. Under these modified channel conditions a much smaller stream would flow across the gravel slope to the region of shallow ground water than was possible immediately after the flood crest had passed. Water thus entering the region of shallow ground water passed the Colton dike and was lost to the ocean.

The idea which guided the work of the Riverside Trust Company was to artificially maintain the early channel conditions of a waning flood. This was done by throwing up temporary embankments across the broad flood channel just as soon as the fury of a flood had abated, so that the water could be checked and ponded, and if necessary spread out laterally from the channel. The work was done between Orange Street and the head of the Gage Canal, where the slope flattens out and broad areas of fine gravel and sand lie adjacent to the flood channel. The method proved effective in conserving the flow of the Santa Ana during and after the period of channel readjustment which follows the larger floods. It was not possible to control the main body of the flood by this method. Furthermore, by spreading the water so near the region from which ground water was developed for use, the practical effect was merely to store the water from spring to the following summer. Although such monthly regulation is good, yet the crying need on all southern California streams is for annual storage regulation. When the dry year comes without its spring floods, there will be no water for spreading and it is then that water stored during the preceding wet years should be at hand. This can be accomplished by spreading the flood water higher up on the slope. This idea has been followed to a certain extent by the Water Conservation Association. The general method used by the Association in getting the flood water into the gravels is to divert a large head of water from the river, carry it in a contour ditch, or established channel, to land suitable for spreading and there distribute it into smaller ditches from which it is further distributed and finally allowed to spread out over the surface and sink into the gravel. The best spreading ground has an unbroken surface with gentle slope and more or less desert vegetation. The soil should be free from clay or silt. The finer wash material composed of sand and gravel is very good. The area of good spreading ground is very limited on the upper alluvial slopes. There is a greater proportion on the middle slope between the Santa Fé Railroad and Orange Street, and below Orange Street almost all of the ground can be used to advantage. In handling the water great care must be exercised to prevent it from cutting. As soon as a small channel in the natural surface is formed,

Plate II-A. Upper diversion ditch.

the water will start flowing rapidly and cut deeper and wider until a wash is formed, down which water goes with a rush and can not be controlled. The most effective percolation occurs when the water moves slowly over the unbroken natural surface. The water can actually be seen to disappear as it advances in a thin sheet over such surface.

The three ditches which are being used are shown on Plate I. They are situated so as to command most of the lands available for water spreading. The upper ditch is about half a mile in length and follows generally the contour of the land (Plate II-A). It diverts water from the north bank of the main wash about one mile below the mouth of Santa Ana Canyon and carries it in a general northwest direction to be spread on the smoother lands below the ditch. The surface of the alluvial slope immediately below this ditch is somewhat broken by old channels and boulders, but there are numerous small areas of gravel and sand which afford fair ground for spreading. The area of such land is probably less than 100 acres. The general grade of the land below this ditch is about 200 feet per mile.

The middle diversion system has a capacity approximately equal to the combined capacities of the two other ditches. Its length is about four miles. The point of diversion from the main channel of the river is about one third of a mile west of the junction of Mill Creek. The diversion channel follows the natural slope and is locally known as the North Fork of Santa Ana River, being an old flood channel of the river. Ditches have been constructed from various points along this channel, through which the water is led on to the adjacent lands. The grade of the land along the upper portion of the channel is about 125 feet per mile and decreases to 50 feet and less per mile toward the lower end. Water can be carried to both the middle and lower alluvial slopes through this channel. During 1912 considerable water was carried through it to the lands west of Orange Street.

The lower ditch diverts from the north bank of the main Santa Ana just below the Santa Fé Railroad crossing. It has a length of possibly two miles, follows generally the slope of the ground, and consists of both artificial and natural channels. The slope of the adjacent ground is about 120 feet per mile. The ditch covers some very good water spreading land between the main wash and the middle ditch.

The work of the men engaged in water spreading is to keep the main ditches in repair, to lead the water into the lateral and sublateral ditches, and to keep the water under control by preventing it from cutting. Portions of the ditches are excavated in the sand and gravel and other portions are diked so that constant watching is necessary when they are carrying large heads of water. The distribution of water needs to be continually rearranged as certain areas become temporarily saturated or water commences cutting. It has been found very desirable not to break the natural surface with a shovel for such places give the water opportunity to start cutting. Many of the laterals are constructed by shoveling out a small trench which the water will soon excavate to the desired size. The area over which the water has been spread thus far is a very small proportion of that available. The first two years' work was carried on above Orange Street, but in 1912 considerable spreading was done west of the street, where conditions were very favorable for spreading a large volume of water at small cost. Four men are kept busy full time during the spreading season in handling the water which is diverted.

The floods of the Santa Ana are torrential in character and in their early stages carry large quantities of fine silt, the result of abrasion of the gravel and boulders which the stream picks up and transports down the canyon. As long as the water maintains its high velocity this silt remains in suspension, but when diverted into the contour ditches and spread out on the surface the silt settles and forms an impervious skin over the surface. This slime completely seals the porous materials from the entry of percolating water and thus greatly reduces the efficiency of the water spreading work. The policy has been not to take this silty water into the ditches. When a flood occurs the headgates are closed and not opened until the water clears again, usually after the lapse of two or three days. The large floods are so violent that the rough boulder diversion dams are often carried away and the present headgates would probably be endangered if it was attempted to divert during the high stages. Hence with the existing methods and equipment it is not desirable to attempt to spread water during period of maximum flood flow.

Amount of water spread.

There has been no record kept of the amount of water diverted and spread prior to the spring of 1912. It is estimated by Mr. John Heaslet, engineer for the Riverside Water Company, who was familiar with the work done by the Conservation Association, that there were from ten to twenty second-feet diverted for possibly three months during the winter of 1908–09. The amount diverted in 1909–10 was less than this, due to the small winter flow of the streams. In 1910–11 Mr. Heaslet made three sets of current meter measurements, as follows: February 21st, upper ditch 20 second-feet; middle ditch 27 second-feet; lower ditch 40 second-feet, or 87 second-feet total; March 1st, upper ditch 22 second-feet; middle ditch 30 second-feet; lower ditch 40 second-feet, or 92 second-feet total; May 20th, upper ditch 22 second-feet; middle and lower ditches dry. The high water period of that season extended from January 24th to about May 1st. The maximum total amount diverted during the season was probably not in excess of 92 second-feet and can be reasonably considered as 75 second-feet for one hundred days or about 15,000 acre feet.

There were weirs installed in the three ditches just below the headgates in the fall of 1911, prior to the first appearance of flood water. These were constructed of concrete and steel, there being a wall of concrete across the ditch section with a sheet steel plate imbedded in it. The weir notch was of the rectangular type with complete end contractions, length of crest 10 feet, depth of notch 2 feet. The conditions are not ideal for accurate measurements, the steel being set into the concrete too far to give good sharp-crested conditions. The upper weir has insufficient free fall (Plate II, B), while the middle weir has high- (Plate III) and the lower weir medium-velocity of approach.

Plate II-B. Headgate and weir at head of upper diversion ditch.

Sand tends to collect rapidly behind the weirs so that it requires constant attention to keep them in condition for use. Observations were made daily during the spring of 1912 by the foreman of the

Plate III. Weir on middle diversion ditch.

water spreading crew who used a carpenter's foot rule and observed to the nearest inch the depth of water over a stake set level with the weir crest. The results of his measurements are presented in Tables 1 to 3. The river channel was entirely dry until early March, 1912, so that the spreading season was short. The total amount diverted was 9,157 acre-feet with a maximum daily discharge of 137 second-feet. Practically all of the water diverted has been absorbed before returning to the wash. The maximum combined discharge capacity of the present diversion works and ditches is not in excess of 250 second-feet and it is doubtful whether four men could handle this amount of water and at the same time keep the main ditches in repair.

Summarizing it can be said that the amount of water spread by the Association during the season 1908–09 was between 2,000 and 3,000 acre-feet and that the volume of water spread in any preceding season did not exceed this. The amount spread in 1909–10 was less than that spread during 1908–09. During the season of 1910–11 the amount spread was about 15,000 acre-feet and during 1911–12 was 9,157 acre-feet. The annual operating cost has averaged about 10 cents per acre foot of water spread, and interest at 6 per cent on the permanent investment 4 cents per acre-foot. The duty of water varies from 2 to 3 acre-feet per acre per year in this region. Hence the annual cost of storing surplus flood water in the gravels is less than 30 cents per acre irrigated therefrom. The average annual return per acre from irrigated land in the vicinity of Riverside is stated to be $150. The cost of subterranean storage is therefore very reasonable.

TABLE 1.

Daily discharge of ditches diverting flood water from Santa Ana River on to spreading ground. March, 1912.

Day.	Discharge in second-feet.			Total.
	Upper weir.	Middle weir.	Lower weir.	
1	.0	.0	.0	.0
2	.0	.0	.0	.0
3	.0	.0	.0	.0
4	.0	.0	.0	.0
5	.0	.0	.0	.0
6	14.7	62.6	59.3	136.6
7	11.6	43.8	21.3	76.7
8	11.6	39.4	14.8	65.7
9	11.6	35.3	6.4	53.3
10	11.6	52.8	59.3	123.7
11	17.8	52.8	50	120.6
12	14.7	52.8	50	117.5
13	17.8	52.8	50	120.6
14	21.3	52.8	50	124.1
15	17.8	52.8	41.2	111.8
16	17.8	52.8	32.6	103.2
17	17.8	48.4	28.8	95.0
18	14.7	48.4	28.8	91.9
19	17.8	48.4	32.6	98.8
20	17.8	43.8	25	86.6
21	17.8	43.8	41.2	102.8
22	17.8	52.8	36.8	107.4
23	17.8	52.8	32.6	103.2
24	11.6	35.3	17.8	64.7
25	11.6	31.2	11.6	54.4
26	4.1	27.2	8.8	40.1
27	4.1	31.2	11.6	46.9
28	4.1	27.2	11.6	42.9
29	4.1	27.2	8.8	40.1
30	6.4	31.2	17.8	55.4
31	4.1	27.2	11.6	42.9
Mean second-feet	11	36.3	24.5	71.8
Total acre-feet	675	2,230	1,508	4,413

Observations by Water Conservation Association.

TABLE 2.

Daily discharge of ditches diverting flood water from Santa Ana River on to spreading ground. April, 1912.

Day.	Discharge in second-feet.			Total.
	Upper weir.	Middle weir.	Lower weir.	
1	4.1	31.2	11.6	46.9
2	2.3	31.2	11.6	45.1
3	2.3	31.2	14.7	48.2
4	2.3	31.2	14.7	48.2
5	2.3	31.2	11.6	45.1
6	2.3	31.2	14.7	48.2
7	4.1	35.3	14.7	54.1
8	4.1	35.3	14.7	54.1
9	9	39.4	21.3	69.7
10	6.4	39.4	28.8	74.6
11	17.8	48.3	59.3	135.4
12	17.8	43.8	41.2	102.8
13	17.8	48.3	41.2	107.3
14	17.8	48.3	41.2	107.3
15	17.8	43.8	41.2	102.8
16	17.8	43.8	41.2	102.8
17	17.8	39.4	36.8	94.0
18	21.3	43.8	36.8	101.9
19	14.7	43.8	36.8	95.3
20	11.6	43.8	32.6	88.0
21	8.8	39.4	25	73.2
22	8.8	39.4	21.3	69.5
23	8.8	39.4	21.3	69.5
24	8.8	39.4	25	73.2
25	6.4	35.3	21.3	63.0
26	6.4	27.2	14.7	48.3
27	6.4	39.3	25	70.7
28	6.4	35.3	21.3	63.0
29	4.1	27.2	8.8	40.1
30	.0	.0	.0	.0
Mean second-feet	9.2	36.8	25	71.0
Total acre-feet	548	2,187	1,487	4,222

Observations by Water Conservation Association.

TABLE 3.

Daily discharge of ditches diverting flood water from Santa Ana River on to spreading ground. May, 1912.

Day.	Discharge in second-feet.			Total.
	Upper weir.	Middle weir.	Lower weir.	
1	.0	.0	.0	.0
2	.0	.0	.0	.0
3	.0	.0	.0	.0
4	.0	.0	.0	.0
5	.0	.0	.0	.0
6	.0	.0	.0	.0
7	.0	.0	.0	.0
8	.0	.0	.0	.0
9	.0	.0	.0	.0
10	.0	.0	.0	.0
11	4.1	31.2	14.7	50.0
12	6.4	35.3	14.7	56.4
13	6.4	35.3	14.7	56.4
14	4.1	31.2	9	44.3
15	6.4	35.3	14.7	56.4
16	.0	.0	.0	.0
17	.0	.0	.0	.0
18	.0	.0	.0	.0
19	.0	.0	.0	.0
20	.0	.0	.0	.0
21	.0	.0	.0	.0
22	.0	.0	.0	.0
23	.0	.0	.0	.0
24	.0	.0	.0	.0
25	.0	.0	.0	.0
26	.0	.0	.0	.0
27	.0	.0	.0	.0
28	.0	.0	.0	.0
29	.0	.0	.0	.0
30	.0	.0	.0	.0
31	.0	.0	.0	.0
Mean second-feet	0.9	5.4	2.2	8.5
Total acre-feet	54	334	134	522

Observations by Water Conservation Association.

Other efforts at water spreading.

The subterranean storage of waste flood water has been tried not only on Santa Ana River, but on San Antonio, Lytle and Santiago creeks and San Jacinto and San Gabriel rivers. There have been somewhat different methods employed on some of these streams for bringing the water in contact with the gravels and an interesting comparison can be made. The writer visited the spreading ground on San Jacinto River and Lytle Creek, and saw the work in progress. The work on both these streams is being carried on in restricted ground water basins, which can be easily controlled by a single financial interest as regards inflow and draft. Water which is absorbed by the gravels can be developed at a lower point later in the season with almost absolute certainty.

The Turk Basin on Lytle Creek is an enlarged portion of the Lytle Creek Canyon, two miles above its mouth, which is filled with the coarse débris deposited by the upper stream. The bedrock walls of the cañon almost meet at the entrance and exit of the basin, but between, widen out to a distance of more than half a mile. The length is a little greater than one mile and the slope of the ground surface nearly 200 feet per mile. The basin is operated by the Fontana Development Company as a monthly storage regulator of the flow of Lytle Creek. The company diverts the flow of the stream for irrigation uses, and reports that the water spreading work is very effective in increasing the gravity flow during the late summer at the lower end of the Turk Basin. The restricted area of contact and the steep grade of the surface have led the company to adopt the ''shaft'' method in getting the water into the gravels. This consists in sinking shafts into the porous material of the upper basin and diverting flood water into them to be absorbed by the surrounding formation.

The shafts are located in the upper and middle part of the basin and are approximately 4 by 6 feet in cross section. They were sunk to porous gravels and varied in depth from 50 to 70 feet below the surface. They are lagged with 2 inch redwood lumber with 8 and 10 inch horizontal sets, each set separated by a $\frac{3}{4}$-inch space. Settling basins are provided near each shaft but flood waters are not admitted until the stream clears of silt. The engineer of the company, Mr. C. M. Racor, reported that the shafts would take from one to two second-feet each. The company has about 12 shafts in this basin. Water is diverted from the creek by means of a temporary boulder dam which each flood carries away. The operating expenses consist of the labor of three or four men a day, for a day or two after each storm, who rebuild the dam, and look over the distributing ditches and shafts. This method is particularly adapted for use on steep ground where desirable spreading area is limited. The cost of the shafts is about $5 per foot. Assuming they were sunk 75 feet, absorbed 300 acre-feet per year and had a life of five years, the interest and depreciation cost would be 32 cents per year per acre-foot. The method might be employed to advantage on the Santa Ana fan above the Santa Fé Railroad.

The work on San Jacinto River is being carried on by the Citizens Water Company below the mouth of the canyon and at the head of San Jacinto Valley. There is a more or less distinct basin here formed by the granite range to the north and the relatively impervious fan of Bautista Creek. The outlet of this basin is at the cienaga, located just above the junction of Poppet and Bautista creeks with San Jacinto Wash, at which point the company has installed a pumping plant. The spreading ground is situated along the river channel for several miles above the cienaga. The surface is an unbroken slope of sand with a grade of from 50 to 30 feet per mile. The basin method is being employed here. Areas of several acres extent are enclosed with levees thrown up by teams and scrapers. Water is diverted from the river into the highest basins and overflows successively into the next lower basins. It is stated by Mr. Kingsbury Sanborn, engineer for the company, that the rate of percolation was in some cases as high as 5 second-feet per acre. It was found necessary to plow up the floor of the basins two or three times during the first season to break the silt deposit, and eventually it will be necessary to remove the silt from the basins. This method is well adapted to gently sloping ground, and with certain modifications might prove more effective on the Santa Ana fan in controlling the large floods than the broadcast spreading now practiced by the Water Conservation Association.

THE SAN BERNARDINO GROUND WATER RESERVOIR.

A study of the effect of water spreading over the Santa Ana fan upon ground water levels, and artesian flow in the San Bernardino Valley, is so closely related to the broader subject of natural ground water storage in the valley, that a brief description of the basin is advisable before considering the problem.

Generally speaking the basin is an ancient valley buried deep beneath modern alluvial material which has been transported from the San Bernardino Mountains by torrential streams which drain its southwestern slope (Fig. 1). The rim of the basin along the north and northeast is the steep rock face of the San Bernardino Range, along the south it is limited by the Crafton Hills and the relatively impervious formation referred to by Mendenhall as the older alluvium;[1] while it is closed on the west by a buried ridge known as the Bunker Hill dike[1] whose higher elevations appear as mounds above the modern alluvial material. There is a gap through this ridge in the vicinity of the present channel of the Santa Ana River. This gap is filled with alluvial material and the present river channel is but a few feet lower than the crest of the ridge. The gap was cut by the Santa Ana River in former geologic times. The bottom of the gap is the lowest depression in the impervious rim of the basin and the superimposed ground surface above is the lowest depression of the present topographic boundary. Hence this vicinity is the natural and sole outlet of both surface and subterranean waters which flow from the basin.

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[1] Mendenhall, W. C., Hydrology of San Bernardino Valley, Cal., Water-Supply Paper No. 142, U. S. Geol. Survey, 1905, pp. 30-34.

The floor of the basin has varied topography which is probably very similar to that of the Perris and San Jacinto regions with their level valleys surrounded by hills and mountains. The depth of alluvial material exceeds 1000 feet in a deep well bored by the city of San Bernardino about one mile east of town. Less than 1½ miles north of this well the bedrock rises 150 feet above the surface at Perris Hill (Plate I). Similar conditions occur in other parts of the valley, but it is impossible to state the detail of this buried topography. There seems to be one feature, however, which is fairly well defined, namely, a range of hills lying about 2½ miles from and almost parallel with the base of the San Bernardino Range, extending from the point of the ridge between Lytle Creek and Cajon Wash in a southeast direction to the highest peak of the Crafton Hills. This range shows itself in the form of buttes and hills, such as Perris Hill, which rise from the surrounding alluvial material to various heights, and by low mounds not so prominent but of the same rock formation. There are three of these mounds along the flood channel of Mill Creek, just above its junction with Santa Ana Wash. The top of buried portions of this ridge have also been encountered at several points, as in the wells sunk by the city of San Bernardino at the new Perris Hill pumping plant, and in a well sunk near the east quarter corner of section 36, township 1 north, range 4 west.

The exact way in which the subsidence of this old topographic surface occurred and the resulting deep basin filled, will probably never be fully understood. The various streams from Cajon Wash to Santa Ana River all assisted in the filling of the basin. There is not enough evidence to determine whether the flow from all these streams was originally deflected to a common point of discharge through the hills, or whether several outlets existed. There are indications, however, that Plunge Creek, City Creek, and other small creeks to the southwest, and possibly Santa Ana River were thus deflected and found a common outlet, at the point of lowest depression which appears to have been near Harlem Springs. The fact that a portion of the bedrock has been cut away from the mountain slope at the west side of the mouth of Santa Ana Canyon, and that none of the older alluvium appears along the base of the range between Santa Ana and Plunge Creek canyons, would indicate that the Santa Ana River was deflected sharply to the west at some time during its history. The period was one of very active erosion and although at first the stream may have deepened the depression through which it passed, the coarse débris ultimately filled the long narrow valley and eventually the outlet. Individual outlets were then found at higher levels and eventually the streams swept over the tops of all but the highest peaks.

The early condition of the main basin was probably that of a deep lake. After the lake was drained the course of an important drainage channel from the San Bernardino Mountains was probably through the defile at Harlem Springs along the general position of Warm Creek, and through the gap in the dike. Mill Creek flowed directly west to the same gap and may have been joined by a large stream from the south. Lytle Creek also assisted in carrying alluvial material into the basin. The ultimate result of the work of these streams was to build up the floor of the valley to its present level and fix the present drainage lines. During all this time periods of great erosional activity were followed by those of comparative quiescence. Hence the material which fills the basin is a series of alternating layers of coarse gravel with sands and clays. There is every reason to believe that a continuous body of coarse material extends from behind the ridge of hills near the San Bernardino Mountains through the Harlem Springs defile and into the main basin, where it is spread fan-shape between layers of impervious clay. The relation of this body of gravel to that deposited by Mill Creek and its tributary and Lytle Creek is difficult to determine, as is also the relation of superimposed gravels carried at a later period over the crest of the ridge of buried hills. The clays, however, are limited to the lower part of the valley and probably do not extend much beyond the original artesian boundary mapped by Mendenhall.

The San Bernardino basin is thus a large structural basin filled with alluvial débris. This material is composed of coarse gravels in a wide zone along the base of the San Bernardino Mountains from Lytle Creek to Crafton Hills, and well out into the valley north of Redlands. Within the area of the central depression of the present valley the gravels are inter-bedded with clays. The natural drainage outlet is situated three miles directly south of the city of San Bernardino.

The void spaces of this gravel, which vary from 20 to 35 per cent of the total volume, constitute the water storage capacity of the basin. The sources of water supply are percolation from those portions of stream channels which are porous, percolation from irrigation water, and percolation from direct precipitation upon porous surface material. The first of these sources is the most important.

The movement of water percolating from streams is downward and laterally into the gravels to the broad surface of the permanent ground water body. The movement is then termed seepage and is down the ground water slope toward the region of lowest depression. The progress of seepage waters is variable and in all cases slow.[1] The lower portion of the valley to the south and east of the city of San Bernardino is the ultimate goal of all waters entering the gravels from whatever source.

Water filling the gravel strata beneath the clays of the central valley are under considerable hydrostatic pressure from ground water in the gravels at higher levels nearer the sources of supply. Such water is termed artesian and breaks through the clay where it is weak, thus forming springs and seepages which give source to such streams as Warm Creek and its tributaries. The ground water level within the area of shallow artesian pressure is near the surface, and causes the swampy conditions so noticeable to the east and south of San Bernardino. Artesian water is drawn upon artificially by means of deep casing wells which puncture the overlaying clays. There have been more than one hundred such wells drilled within the artesian area.

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[1] Mendenhall, W. C., Water-Supply Paper No. 142, U. S. Geol. Survey, 1905, pp. 49-50.

The basin is a great subterranean storage reservoir. Hence all water that enters it must have an outlet. The natural outlets are by subsurface flow through the gap in the Bunker Hill dike, by evaporation from the swamp and moist lands overlaying the artesian area, and by overflow of springs and seepages into surface channels through which it flows from the basin across the dike. Warm Creek drains the north two thirds of the artesian area, and the channel of Santa Ana River the southern portion. The underflow at the gap through the dike is small in amount and need hardly be considered from a practical standpoint when studying the output of the basin as a whole. In recent years the artificial development of artesian and pumped water for use without the basin has constituted a fourth outlet. This artificial draft has correspondingly reduced the natural overflow from the basin by shrinkage of spring and seepage flow, and the evaporating area, but has not increased the total outflow. Considered as an average, natural inflow and outflow for the basin are equal in amount.

There are great monthly inequalities in the rate of recharge of the basin due to the concentration of annual precipitation and run-off into a few months of the year. There are also annual differences due to the broad annual variations of precipitation and run-off. These are shown to a certain extent in the rate of outflow from the basin. The monthly irregularities are registered by variable natural and artificial artesian flow; the annual changes by variation in the evaporating area as well as the amount of escaping artesian water. The major part of irregularities in inflow, however, is taken up by fluctuations of ground water level. This characteristic of a ground water storage reservoir gives it preëminent advantage over any other type of storage in a region subject to great precipitation extremes, such as southern California.

The problem of determining the effect of water spreading during the past few years upon the amount of water commercially available from the basin is solved by answering the following questions:

1. To what extent has water spreading increased the volume of water percolating into the gravels of the Santa Ana Fan?

2. Have ground water levels, artesian flow, or the boundary of moist land in any portion of the basin exhibited any fluctuations during the last few years which cannot be explained by variation in the rate of natural ground water supply?

3. Have ground water levels or output in any other ground water basin of southern California influenced solely by natural conditions, exhibited variations similar to those of the San Bernardino basin?

The remainder of this report presents and analyzes data which bears upon these questions.

TABLE 4.

Precipitation in inches at San Bernardino, Cal.

Elevation 1054.

Season.	July.	August.	September.	October.	November.	December.	January.	February.	March	April.	May.	June.	Total.
1870-71	.0	.0	0.02	0.09	3.11	0.89	6.91	2.21	0.19	0.34	0.11	0.07	13.94
1871-72	.0	0.04	0.13	0.60	0.88	3.91	.0	2.20	0.37	0.79	0.06	.0	8.98
1872-73	.0	0.18	0.04	.0	1.17	4.40	6.50	1.25	0.51	0.84	0.21	.0	15.10
1873-74	.0	1.06	0.02	0.01	0.74	5.73	5.51	8.76	1.08	0.48	0.42	.0	23.81
1874-75	.0	.0	0.06	1.82	1.88	2.20	7.20	0.15	0.22	0.07	0.05	.0	13.65
1875-76	.0	.0	.0	.0	7.50	0.02	6.55	1.92	3.41	0.44	0.03	0.03	19.90
1876-77	.0	.0	.0	0.20	0.40	.0	3.50	4.03	0.83	0.26	0.30	.0	9.52
1877-78	.0	.0	.0	0.86	0.50	3.95	3.33	6.68	2.57	1.71	0.66	0.07	20.33
1878-79	0.07	.0	0.02	0.14	0.05	4.70	3.59	1.00	0.50	1.20	0.24	0.03	11.54
1879-80	0.11	0.02	0.01	0.94	3.40	6.50	1.56	1.33	1.45	5.00	0.04	.0	20.36
1880-81	.0	.0	.0	0.14	0.67	8.80	1.40	0.36	1.66	0.46	0.01	.0	13.50
1881-82	.0	.0	.0	0.80	0.27	0.50	1.11	2.65	3.30	2.91	.0	.0	11.54
1882-83	.0	.0	.0	0.10	0.15	0.45	1.60	1.10	2.82	2.95	.0	.0	9.17
1883-84	0.19	.0	0.53	0.85	0.09	2.63	1.63	12.20	9.95	5.68	3.17	0.59	37.51
1884-85	.0	.0	.0	.0	0.11	3.75	2.79	0.11	0.28	1.89	1.69	0.19	10.81
1885-86	.0	.0	.0	0.39	4.36	1.20	6.44	2.52	4.18	2.36	0.32	0.16	21.93
1886-87	.0	.0	.0	.0	0.11	0.61	0.39	6.44	4.41	1.90	0.42	0.22	14.50
1887-88	0.11	0.04	0.09	1.17	2.29	1.91	4.01	3.60	3.41	0.58	0.52	0.03	17.76
1888-89	.0	.0	.0	0.05	4.12	4.64	0.93	1.50	6.55	2.05	1.13	.0	20.97
1889-90	0.17	0.63	0.11	2.30	2.23	10.85	5.44	2.52	0.89	.0	0.31	.0	25.45
1890-91	0.13	2.16	0.88	0.58	1.27	3.02	.0	7.78	0.06	0.53	1.67	.0	18.08
1891-92	.0	0.91	0.93	trace	trace	1.67	3.24	3.30	1.75	0.37	2.10	0.08	14.35
1892-93	.0	trace	.0	0.16	1.02	2.23	4.53	3.37	8.00	0.48	0.03	.0	19.82
1893-94	0.20	.0	0.05	1.05	0.30	2.28	1.26	0.88	1.15	0.40	0.56	.0	8.13
1894-95	trace	0.16	0.37	0.15	.0	7.25	7.39	1.14	3.44	0.64	0.44	.0	20.98
1895-96	.0	.0	.0	.0	0.14	0.66	2.02	.0	2.92	0.37	1.00	.0	8.11
1896-97	trace	0.17	.0	2.10	0.98	1.09	3.40	5.40	3.41	0.08	0.11	.0	16.74
1897-98	trace	.0	0.13	2.10	0.21	0.57	2.10	0.60	0.97	0.48	1.08	.0	8.24
1898-99	.0	.0	.0	0.03	0.05	0.44	2.03	0.51	3.22	0.07	0.19	0.95	7.49
1899-00	.0	trace	0.01	0.81	1.47	0.84	0.92	.0	0.92	1.96	1.71	trace	8.64
1900-01	0.34	.0	0.23	0.36	6.10	.0	3.48	4.58	0.43	0.56	1.23	0.05	17.36
1901-02	.0	0.27	0.07	1.09	0.28	0.04	1.65	3.02	3.89	0.57	0.12	0.15	11.15
1902-03	0.01	.0	.0	0.09	1.94	1.94	1.96	1.67	6.47	3.10	0.24	.0	17.42
1903-04	.0	0.15	0.46	0.07	.0	.0	0.18	2.21	5.34	0.80	0.16	.0	9.37
1904-05	.0	0.14	0.06	0.32	.0	1.03	3.92	6.58	6.00	1.18	1.55	.0	20.78

TABLE 4—Continued.

Precipitation in inches at San Bernardino, Cal.

Season.	July.	August.	September.	October.	November.	December	January.	February.	March.	April.	May.	June.	Total.
1905-06	.0	.0	0.13	0.01	2.81	0.74	2.97	2.89	8.00	1.16	0.96	0.22	19.88
1906-07	trace	trace	0.05	0.01	2.42	7.12	6.33	2.14	4.58	0.16	0.11	0.25	23.17
1907-08	.0	.0	.0	2.75	0.10	0.97	4.71	4.20	2.03	0.53	0.31	0.02	15.62
1908-09	0.05	.0	1.11	1.45	0.26	0.66	7.49	3.76	2.29	0.17	0.02	0.10	17.36
1909-10	.0	1.28	.0	0.04	2.28	7.19	2.43	0.08	1.58	0.14	.0	trace	15.02
1910-11	0.05	0.03	0.36	1.04	0.54	0.03	6.58	4.22	2.52	0.48	0.49	trace	16.34
1911-12	trace	.0	1.47	0.50	0.58	1.17	0.75	.0	5.18	3.67	0.52	(.0)	13.84
42-year mean	.03	.17	.17	.60	1.35	2.59	3.33	2.88	2.92	1.19	.58	.08	15.91

TABLE 5.

Precipitation in inches at Riverside, Cal.

Elevation 851.

Season.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
1881-82	.0	.0	0.10	0.40	0.25	0.40	1.70	1.40	1.08	0.72	0.08	0.18	6.31
1882-83	.0	.0	.0	0.13	0.29	0.20	0.09	0.83	0.89	0.26	0.25	.0	2.94
1883-84	.0	.0	.0	0.97	.0	2.25	0.84	7.94	6.56	1.67	1.99	0.52	22.74
1884-85	.0	3.00	.0	0.12	0.12	2.56	0.77	.0	0.01	2.15	0.24	.0	8.97
1885-86	.0	.0	.0	0.02	1.34	0.62	2.68	1.38	1.95	1.43	.0	.0	9.42
1886-87	.0	.0	.0	.0	0.54	0.04	0.13	3.30	0.02	1.70	0.17	0.02	5.92
1887-88	.0	.0	.0	0.75	0.87	0.85	4.17	1.05	3.84	0.18	0.05	.0	11.76
1888-89	.0	.0	.0	.0	2.83	3.37	0.87	1.30	5.10	1.83	0.25	.0	15.55
1889-90	.0	.0	0.09	1.35	1.82	7.80	4.44	1.96	0.60	0.06	0.09	.0	18.21
1890-91	.0	0.05	0.79	0.13	0.32	3.21	0.13	6.36	0.40	1.04	0.46	.0	12.89
1891-92	.0	.0	0.13	0.03	.0	1.29	.0	2.60	1.07	.0	1.32	.0	6.44
1892-93	.0	.0	.0	0.29	0.28	0.94	3.01	1.95	5.71	0.24	0.04	.0	12.46
1893-94	0.33	.0	1.27	1.08	0.67	2.05	0.69	0.33	0.70	.0	.0	.0	7.12
1894-95	.0	0.26	0.20	0.05	.0	5.22	6.48	1.09	2.54	0.29	0.26	.0	16.39
1895-96	.0	.0	.0	.0	1.25	0.24	1.72	.0	3.16	0.56	0.58	.0	7.51
1896-97	0.02	0.23	.0	2.07	1.48	0.92	3.38	3.07	1.62	0.03	0.03	.0	12.85
1897-98	.0	0.04	0.09	1.67	0.02	0.95	1.74	0.12	0.80	0.18	0.27	.0	5.88
1898-99	.0	.0	.0	.0	0.01	1.38	2.09	0.89	0.90	.0	0.13	0.30	5.70
1899-90	.0	.0	.0	1.03	0.57	0.41	1.01	0.01	0.95	0.74	1.29	.0	6.01
1900-01	.0	.0	.0	0.28	2.51	.0	2.67	2.74	0.12	.0	0.54	.0	8.86
1901-02	(0.02)	(0.18)	trace	0.80	0.12	trace	0.90	1.81	2.23	0.23	0.16	0.05	(6.50)
1902-03	trace	.0	trace	0.09	1.09	1.64	0.94	1.24	5.22	2.49	0.02	.0	12.74
1903-04	trace	trace	0.43	0.05	.0	0.03	0.15	1.21	3.22	0.58	0.08	.0	5.75
1904-05	0.07	trace	trace	0.21	.0	1.11	3.07	5.86	4.87	0.45	0.88	.0	16.52
1905-06	.0	.0	0.08	trace	2.73	0.48	1.38	1.44	6.86	1.57	0.52	0.08	15.14
1906-07	trace	trace	0.02	.0	2.23	4.43	4.02	1.75	3.49	0.14	0.07	0.16	16.31
1907-08	.0	.0	.0	2.91	0.02	0.90	3.93	2.77	0.92	0.28	0.21	.0	11.94
1908-09	0.10	0.02	0.77	0.59	0.11	0.65	4.89	2.73	1.87	0.11	0.09	0.09	12.02
1909-10	.0	1.23	.0	0.06	1.96	5.03	1.70	0.04	1.73	0.18	.0	.0	11.93
1910-11	.0	.0	.0	0.59	0.40	0.04	4.70	2.80	1.66	0.51	0.03	.0	10.73
1911-12	0.10	.0	0.75	0.40	.0	0.86	0.45	.0	3.64	1.79	0.38	.0	8.37
31-year mean	.02	.16	.15	.52	.77	1.61	2.09	1.93	2.38	.69	.34	.05	10.70

TABLE 6.

Precipitation in inches at Redlands, Cal.

Elevation 1352.

Season.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
1889-90	.0	0.28	0.31	1.50	0.52	13.72	4.69	3.03	0.89	0.16	0.68	.0	25.78
1890-91	.0	2.16	0.88	0.29	.0	3.02	.0	9.28	1.19	0.91	1.10	.23	19.06
1891-92	.0	1.63	0.97	.0	.0	1.51	0.87	4.37	2.06	0.13	.0	.0	11.54
1892-93	.0	.0	0.03	.0	0.63	1.58	3.02	3.93	7.22	0.26	.0	.0	16.67
1893-94	0.21	.0	0.69	0.95	0.50	3.46	1.43	1.04	1.01	0.25	0.64	.0	10.18
1894-95	.0	0.09	0.17	0.07	.0	7.38	8.66	1.30	3.29	1.37	0.57	.0	22.90
1895-96	.0	.0	.0	0.03	2.03	0.52	1.52	0.24	3.96	0.01	1.14	0.06	9.51
1896-97	0.01	2.00	.0	1.72	2.07	1.37	5.11	5.83	3.00	0.14	0.63	.0	21.88
1897-98	0.06	.0	0.83	2.38	0.16	0.70	1.96	0.79	0.99	0.31	2.15	.0	10.33
1898-99	0.10	.0	.0	0.04	0.22	0.62	1.92	0.71	1.50	0.08	0.24	0.87	6.30
1899-90	.0	0.04	0.05	0.65	1.28	0.46	1.20	trace	0.78	2.03	1.41	.0	7.90
1900-01	0.04	.0	0.50	0.53	3.88	.0	2.25	3.79	0.46	trace	1.62	0.04	13.11
1901-02	.0	.0	.0	0.92	0.09	trace	1.64	2.58	2.82	0.36	0.08	0.31	8.80
1902-03	0.07	.0	.0	0.06	1.40	1.50	1.16	1.41	5.86	3.88	0.48	.0	15.82
1903-04	.0	0.21	0.54	0.06	.0	.0	0.29	1.50	4.55	0.82	0.48	.0	8.45
1904-05	.0	0.18	.0	0.26	.0	0.24	6.15	6.74	5.53	0.27	1.16	.0	20.53
1905-06	.0	.0	.0	0.04	2.38	1.29	1.48	3.04	6.15	1.30	0.79	0.14	16.61
1906-07	.0	0.04	0.19	.0	2.72	5.21	5.90	2.03	4.30	0.47	0.38	0.61	21.85
1907-08	.0	.0	.0	3.37	0.24	0.77	4.44	3.12	1.56	0.52	0.30	0.04	14.36
1908-09	trace	0.22	1.31	0.96	0.02	0.98	5.06	2.87	2.25	0.16	0.57	0.07	14.47
1909-10	trace	0.19	0.06	0.05	1.67	4.43	1.99	0.19	1.57	0.25	.0	0.07	10.47
1910-11	0.38	trace	0.20	0.51	0.48	0.67	4.44	3.88	2.24	0.68	0.45	trace	13.93
1911-12	trace	trace	1.03	0.71	0.34	1.35	0.37	.0	5.87	2.85	1.73	.0	14.25
23-year mean	.04	.31	.34	.66	.90	2.21	2.85	2.68	3.00	.75	.72	.11	14.55

TABLE 7.
Precipitation in inches at Upland, Cal.
Elevation 1750.

Season.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
1891-92	.0	.0	.0	.0	.0	2.70	2.55	2.90	5.97	0.50	3.28	0.87	18.77
1892-93	.0	.0	.0	0.12	2.96	3.67	9.50	3.61	12.52	0.77	.0	0.08	33.23
1893-94	0.60	.0	.0	1.21	1.42	5.08	1.21	1.57	1.42	0.28	0.28	.0	13.07
1894-95	.0	0.34	0.58	0.03	.0	8.66	9.03	2.38	4.75	1.45	0.65	.0	27.87
1895-96	.0	.0	.0	.0	1.40	1.40	2.83	.0	5.25	0.70	0.93	.0	12.51
1896-97	0.04	0.60	.0	3.32	0.93	1.66	5.26	7.82	5.29	trace	0.07	.0	24.99
1897-98	.0	trace	.0	3.41	0.40	0.43	2.30	1.11	1.55	0.50	2.75	.0	12.75
1898-99	0.06	.0	trace	0.28	0.12	0.55	2.88	0.63	2.71	0.19	0.05	0.90	8.37
1899-00	.0	trace	0.05	1.73	1.78	1.05	1.75	0.19	1.93	1.68	2.77	.0	12.93
1900-01	.0	.0	0.64	0.40	8.17	.0	5.33	6.10	0.71	0.78	1.50	.0	23.63
1901-02	.0	.0	.0	2.59	0.75	0.06	1.51	2.92	5.78	0.29	0.13	0.05	14.08
1902-03	.0	.0	.0	0.41	2.05	2.54	3.97	2.10	9.45	4.00	0.63	.0	25.15
1903-04	.0	.0	0.42	.0	.0	.0	0.39	4.26	6.18	1.77	0.30	.0	13.32
1904-05	trace	0.07	.0	0.95	.0	1.09	4.30	7.92	6.87	0.88	3.54	.0	25.62
1905-06	.0	.0	0.17	0.02	2.96	0.90	3.88	3.00	14.03	2.42	2.65	0.20	30.23
1906-07	0.11	.0	trace	.0	0.75	9.10	9.71	3.19	7.32	0.53	0.12	0.84	31.67
1907-08	.0	.0	.0	2.14	0.22	1.11	7.15	4.35	1.40	1.32	0.60	.0	18.29
1908-09	trace	.0	1.86	1.03	0.36	1.27	11.08	7.04	3.95	0.17	.0	.0	26.76
1909-10	0.05	0.02	trace	0.36	2.33	11.41	2.83	0.56	2.35	0.29	.0	.0	20.11
1910-11	.0	.0	trace	0.38	0.82	0.23	11.10	6.25	6.02	1.28	0.55	.0	26.63
20-year mean	.04	.05	.19	.92	1.37	2.65	4.93	3.40	5.27	.99	1.04	.15	21.

TABLE 8.

Seasonal precipitation in inches at San Diego, Cal.

Season.	Depth in inches.	Season.	Depth in inches.
1850-51	8.41	1882-83	4.92
1851-52	9.48	1883-84	25.97
1852-53	11.03	1884-85	8.67
1853-54	9.77	1885-86	16.96
1854-55	13.56	1886-87	8.32
1855-56	9.89	1887-88	9.82
1856-57	4.76	1888-89	11.02
1857-58	7.54	1889-90	15.02
1858-59	6.61	1890-91	10.47
1859-60	6.58	1891-92	8.70
1860-61	7.90	1892-93	9.26
1861-62	15.64	1893-94	4.97
1862-63	3.87	1894-95	11.90
1863-64	5.14	1895-96	6.21
1864-65	8.45	1896-97	11.78
1865-66	12.82	1897-98	4.99
1866-67	13.73	1898-99	5.24
1867-68	11.23	1899-00	5.97
1868-69	11.68	1900-01	10.45
1869-70	5.48	1901-02	6.17
1870-71	5.17	1902-03	11.76
1871-72	7.18	1903-04	4.40
1872-73	6.50	1904-05	14.32
1873-74	16.88	1905-06	14.68
1874-75	5.73	1906-07	10.62
1875-76	10.11	1907-08	8.55
1876-77	3.75	1908-09	10.23
1877-78	16.10	1909-10	9.79
1878-79	7.88	1910-11	11.99
1879-80	14.36	1911-12	10.75
1880-81	9.66		
1881-82	9.51	62-year mean	9.68

WATER SUPPLY.

The ultimate source of water supply for the San Bernardino basin is precipation upon the valley floor and the tributary mountain slopes. The precipitation falling upon the mountains becomes available to the valley as run-off in the streams which flow from the various cañons or catchment areas. The percolation from stream flow is the most important source of ground water supply, but since stream flow is primarily dependent on precipitation a broadly accurate knowledge of fluctuations in the rate of ground water supply can be obtained from a study of precipitation records.

Precipitation.

The problem under consideration deals with the distribution of precipitation, not geographically, but with regard to time. A few records typical of the whole region are therefore sufficient as a basis of study. The records selected are those published by the United States Weather Bureau for San Bernardino, Riverside, Redlands, and Upland (Tables 4 to 7). The Weather Bureau record at San Diego is also presented because of the long period covered and general similarity of precipitation conditions (Table 8), and the record at Los Angeles in connection with ground water conditions in San Fernando Valley (Table 9). The records are arranged according to the season, July 1 to June 30, which correspond with the run-off season.

TABLE 9. *Precipitation in inches at Los Angeles, Cal.* (Elevation 293.)

Season.	July.	August.	September.	October.	November.	December.	January.	February.	March	April.	May.	June.	Total.
1872-73	.0	0.22	.0	.0	.0	4.42	2.08	7.19	.05	.0	.0	.0	13.96
1873-74	.0	1.06	.0	.0	0.74	5.74	5.51	9.77	1.09	.45	.42	.0	24.78
1874-75	.0	.0	0.06	1.81	1.89	.20	17.22	.15	.22	.07	.05	.0	21.67
1875-76	.0	.0	.0	.0	7.57	.82	6.54	7.92	3.41	.45	.03	.0	26.74
1876-77	.0	.0	.0	.40	.0	.0	3.48	.01	.83	.26	.30	.0	5.28
1877-78	.0	.0	.0	0.86	0.45	3.93	3.33	7.68	2.57	1.71	0.66	0.07	21.26
1878-79	.0	trace	.0	0.14	trace	4.70	3.59	0.97	0.49	1.19	0.24	0.03	11.35
1879-80	.0	.0	.0	0.93	3.44	6.53	1.33	1.56	1.45	5.06	0.04	.0	20.34
1880-81	trace	trace	.0	0.14	0.67	8.40	1.43	0.36	1.66	0.46	0.01	.0	13.13
1881-82	.0	trace	trace	0.82	0.27	0.52	1.01	2.66	2.66	1.83	0.63	trace	10.40
1882-83	.0	.0	trace	0.05	1.82	0.08	1.62	3.47	2.87	0.15	2.02	0.03	12.11
1883-84	trace	.0	.0	1.42	.0	2.56	3.15	13.37	12.36	3.58	0.35	1.39	38.18
1884-85	trace	trace	trace	0.39	1.06	4.64	1.05	trace	0.01	2.00	0.06	trace	9.21
1885-86	trace	trace	trace	0.26	5.52	1.63	7.72	1.38	2.50	3.29	.0	0.01	22.31
1886-87	0.24	0.21	.0	0.01	1.18	0.18	0.20	9.25	0.24	2.30	0.20	0.04	14.05
1887-88	0.07	.0	0.15	0.12	0.78	2.67	6.03	0.77	3.15	0.11	0.02	trace	13.87
1888-89	0.03	0.08	trace	0.36	4.01	6.25	0.25	0.92	6.48	0.27	0.62	.0	19.28
1889-90	.0	0.28	0.33	6.96	1.35	15.80	7.83	1.36	0.66	0.22	0.03	0.02	34.84
1890-91	.0	0.03	0.06	0.03	0.13	2.32	0.25	8.56	0.41	1.26	0.31	.0	13.36
1891-92	trace	.0	0.06	.0	.0	1.99	0.88	3.19	3.39	0.22	2.06	0.06	11.85
1892-93	.0	0.01	.0	0.33	4.40	4.18	6.29	2.27	8.52	0.19	0.06	0.03	26.28
1893-94	.0	.0	trace	0.75	0.20	3.65	0.94	0.49	0.37	0.13	0.20	trace	6.73
1894-95	trace	0.01	0.73	0.02	.0	4.62	5.84	0.46	3.77	0.46	0.19	0.01	16.11
1895-96	trace	trace	trace	0.24	0.80	0.78	3.23	trace	2.97	0.19	0.30	trace	8.51
1896-97	0.02	0.01	trace	1.30	1.66	2.12	3.70	5.62	2.31	0.02	0.10	trace	16.86
1897-98	trace	.0	.0	2.47	0.01	0.05	1.26	0.51	0.98	0.03	1.75	trace	7.06
1898-99	0.07	trace	0.02	0.09	trace	0.12	2.64	0.04	1.81	0.18	0.04	0.58	5.59
1899-00	.0	0.01	trace	1.59	0.90	0.90	1.17	trace	0.99	0.54	1.81	trace	7.91
1900-01	trace	trace	trace	0.26	6.53	trace	2.49	4.38	0.45	0.68	1.50	trace	16.29
1901-02	trace	0.09	0.03	1.88	0.46	.0	1.62	3.35	2.98	0.16	0.03	trace	10.60
1902-03	trace	trace	trace	0.40	2.08	2.50	2.10	1.52	6.93	3.77	trace	0.02	19.32
1903-04	.0	trace	0.43	trace	.0	trace	0.14	2.68	4.50	0.97	trace	trace	8.72
1904-05	trace	0.17	0.28	0.69	.0	2.45	2.57	6.06	6.00	0.35	0.95	.0	19.52
1905-06	.0	.0	trace	0.08	2.98	0.20	3.85	2.47	7.35	0.69	0.02	0.01	18.65
1906-07	0.02	0.03	0.05	.0	0.85	5.12	7.02	1.83	4.12	0.16	0.07	0.03	19.30
1907-08	.0	.0	trace	1.19	trace	0.88	5.04	3.66	0.18	0.52	0.25	.0	11.72
1908-09	trace	0.08	1.22	0.25	1.08	1.46	7.27	5.20	2.51	trace	.0	0.11	19.18
1909-10	.0	trace	0.04	0.28	1.51	7.00	1.53	0.11	1.86	0.30	.0	.0	12.63
1910-11	0.04	trace	0.01	0.82	0.15	0.07	6.70	2.91	5.15	0.28	0.02	0.03	16.18
1911-12	trace	.0	1.23	0.16	0.10	1.27	0.07	.0	6.99	1.66	0.12	.0	11.60
40-year mean	.01	.06	.12	.69	1.36	2.77	3.50	3.10	2.93	.90	.41	.06	15.92

TABLE 10.

Observed precipitation in inches at base stations in San Bernardino Valley.

Season July 1 to June 30.	San Bernardino.	Riverside.	Redlands.	Upland.
1870-71	13.94			
1871-72	8.98			
1872-73	15.10			
1873-74	23.81			
1874-75	13.65			
1875-76	19.90			
1876-77	9.52			
1877-78	20.33			
1878-79	11.54			
1879-80	20.36			
1880-81	13.50			
1881-82	11.54	6.31		
1882-83	9.17	2.94		
1883-84	37.51	22.74		
1884-85	10.81	8.97		
1885-86	21.93	9.42		
1886-87	14.50	5.92		
1887-88	17.76	11.76		
1888-89	20.97	15.55		
1889-90	25.45	18.21	25.78	
1890-91	18.08	12.89	19.06	
1891-92	14.35	6.44	11.54	18.77
1892-93	19.82	12.46	16.67	33.23
1893-94	8.13	7.12	10.18	13.07
1894-95	20.98	16.39	22.90	27.87
1895-96	8.11	7.51	9.51	12.51
1896-97	16.74	12.85	21.88	24.99
1897-98	8.24	5.88	10.33	12.75
1898-99	7.49	5.70	6.30	8.37
1899-00	8.64	6.01	7.90	12.93
1900-01	17.36	8.86	13.11	23.63
1901-02	11.15	6.50	8.80	14.08
1902-03	17.42	12.74	15.82	25.15
1903-04	9.37	5.75	8.45	13.32
1904-05	20.78	16.52	20.53	25.62
1905-06	19.88	15.14	16.61	30.23
1906-07	23.17	16.31	21.85	31.67
1907-08	15.62	11.94	14.36	18.29
1908-09	17.36	12.02	14.47	26.76
1909-10	15.02	11.93	10.47	20.11
1910-11	16.34	10.73	13.93	26.63
1911-12	13.84	8.37	14.25	
Number of years	42	31	23	20
Observed mean	15.91	10.70	14.55	21.04
Number of years	42	42	42	42
Deduced mean	15.91	10.61	15.07	22.70

The longest record in the San Bernardino Valley is that at the city of San Bernardino which covers 42 seasons from 1870-71 to 1911-12. The Riverside record extends over 31 seasons, Redlands 23 seasons and Upland 20 seasons. The mean computed from the shorter records is not as reliable as that for San Bernardino. Since precipitation conditions are similar at the four stations deduced means were computed for the shorter records by comparing the precipitation at San Bernardino during the same period with the full period at that station, and applying the correction factors to the shorter term means (Table 10). The percentage relation that each season's precipitation bears to the long period mean and the average per cent for the four stations was then computed (Table 11). It will be observed that the percentages at various stations agree closely and the average gives a more reliable value than would a single record. It will be noted that seasonal precipitation varies from a maximum of two and one fourth times the mean to a minimum of two fifths of the mean. Also that periods of four consecutive seasons have occurred with precipitation both above and below normal. Ground water fluctuations should, therefore, be subject to wide variations from natural causes.

TABLE 11.

Seasonal variation of precipitation expressed as per cent of deduced mean for stations in San Bernardino Valley.

Season July 1 to June 30.	San Bernardino.	Riverside.	Redlands.	Upland.	Average per cent for each year of all stations.
1870-71	88				88
1871-72	56				56
1872-73	95				95
1873-74	150				150
1874-75	86				86
1875-76	125				125
1876-77	60				60
1877-78	128				128
1878-79	72				72
1879-80	128				128
1880-81	85				85
1881-82	72	60			66
1882-83	58	28			43
1883-84	236	214			225
1884-85	68	85			76
1885-86	138	89			113
1886-87	91	56			73
1887-88	112	111			111
1888-89	132	146			139
1889-90	160	172	171		168
1890-91	113	122	126		120
1891-92	90	61	77	83	78
1892-93	124	117	110	146	124
1893-94	51	67	68	58	61
1894-95	132	155	152	123	140
1895-96	51	71	63	55	60
1896-97	105	121	145	110	120
1897-98	52	55	68	56	58
1898-99	47	54	42	37	45
1899-00	54	57	52	57	55
1900-01	109	84	87	104	96
1901-02	70	61	58	62	63
1902-03	110	112	105	111	110
1903-04	59	54	56	59	57
1904-05	130	156	136	113	134
1905-06	125	143	110	133	128
1906-07	146	154	145	140	146
1907-08	98	112	95	81	96
1908-09	109	113	96	118	109
1909-10	94	112	69	88	91
1910-11	103	101	92	117	103
1911-12	87	79	94		86
Number of years	42	31	23	20	
Observed mean	15.91	10.70	14.55	21.04	
Number of years	42	42	42	42	
Deduced mean	15.91	10.61	15.07	22.70	

The distribution of precipitation through the year is shown by Table 12. There is a marked wet and dry season. The rainy months are December to March, inclusive, during which 77 per cent of the seasonal total occurs. The dryest months are June to September, when four per cent occurs, while April, May, October, and November intermediate with a total of 21 per cent. The ground water reservoir is therefore recharged during the spring months.

TABLE 12.

The monthly precipitation at San Bernardino Valley stations.

Month.	San Bernardino.		Riverside.		Redlands.		Upland.		Average of per cent
	Depth in inches	Per cent of seasonal	Depth in inches	Per cent of seasonal	Depth in inches	Per cent of seasonal	Depth in inches	Per cent of seasonal	
July	.03	1	.02	1	.04	1	.04	1	1
August	.17	1	.16	1	.31	2	.05	1	1
September	.17	1	.15	1	.34	2	.19	1	1
October	.60	4	.52	5	.66	5	.92	4	4
November	1.35	8	.77	7	.90	6	1.37	6	7
December	2.59	16	1.61	15	2.21	15	2.65	13	15
January	3.33	21	2.09	20	2.85	19	4.93	22	21
February	2.88	18	1.93	18	2.68	18	3.40	16	17
March	2.92	18	2.38	22	3.00	21	5.27	25	22
April	1.19	7	.69	6	.75	5	.99	5	6
May	.58	4	.34	3	.72	5	1.04	5	4
June	.08	1	.05	1	.11	1	.15	1	1
Totals	15.91	100	10.70	100	14.55	100	21.00	100	100

It is difficult to grasp the general tendencies of annual variation in precipitation from tables. A diagram has therefore been prepared (Fig. 2), showing the excess and deficiency of precipitation with respect to the mean at typical stations. The variation from the mean for each year is shown by small circles. The general tendency is shown by a heavy line obtained by averaging progressively the precipitation of each three consecutive years. This process smooths out the minor irregularities and shows broad variations clearly. Although the amount of precipitation differs, yet the variations from year to year agree exactly at the four stations, San Diego, San Bernardino, Riverside, and Los Angeles. Beginning with the season 1883-84 there began a period of the heaviest rainfall observed during the last sixty years, which continued until 1891–92. It was followed by the period of most severe drought ever recorded in southern California, which continued to 1903-04. There were, of course, individual years in each of these periods which departed from the general tendency, but these single years had little effect either upon run-off or ground water levels. Since 1903–04 there has been a period of marked increase followed by one of generally normal character.

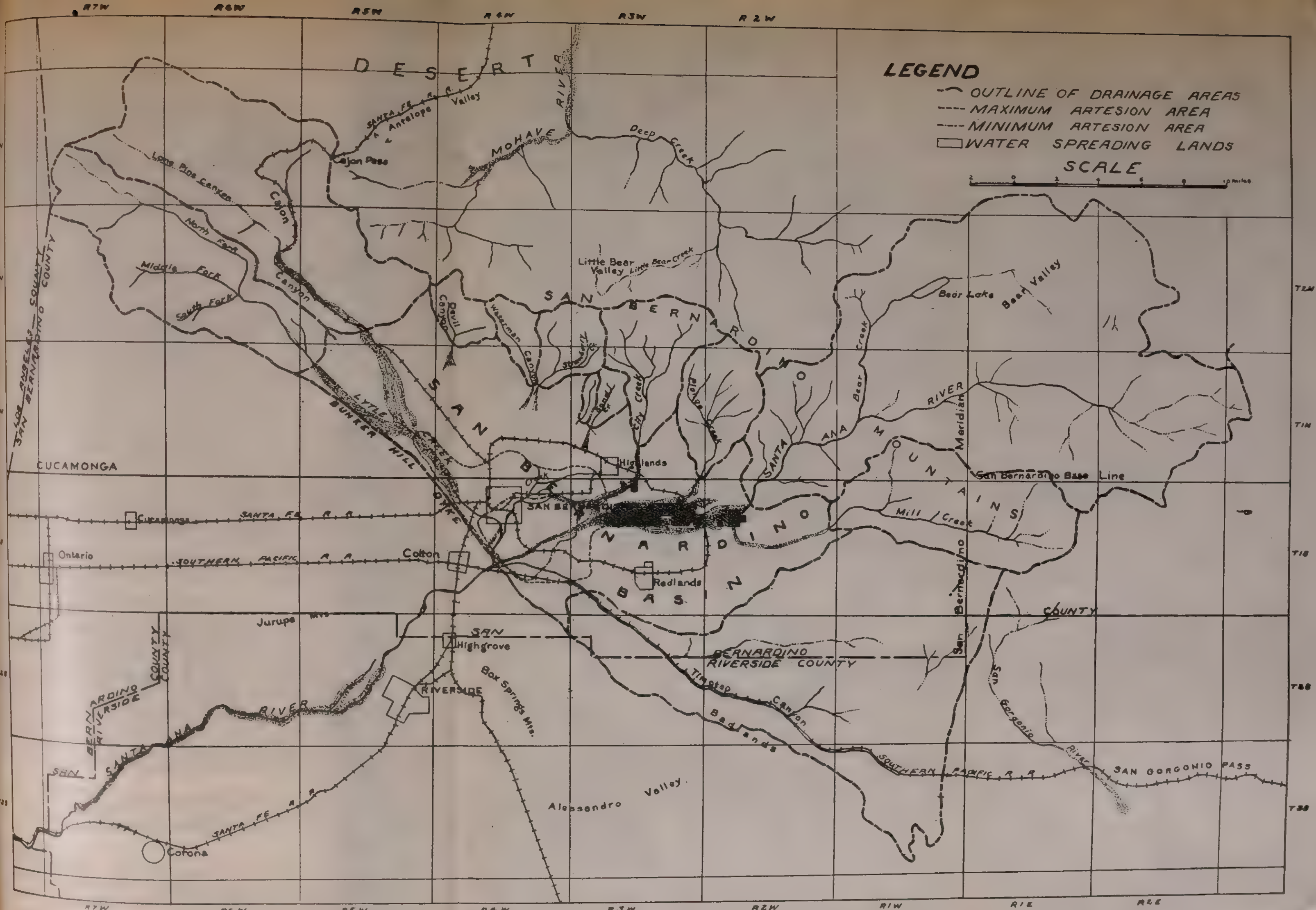

FIGURE 1 — GENERAL MAP OF SAN BERNARDINO VALLEY
SHOWING TRIBUTARY DRAINAGE AREA

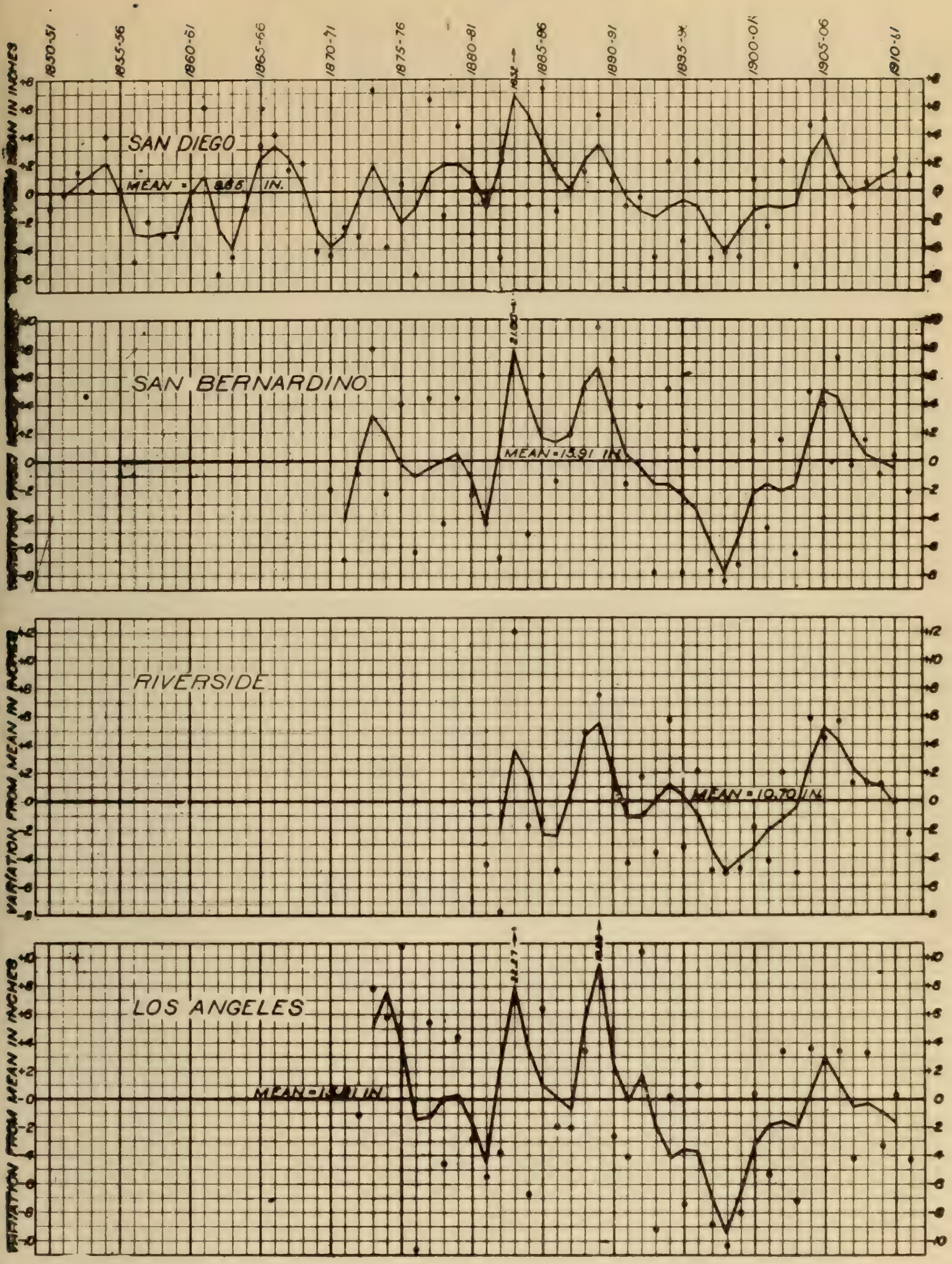

FIGURE-2-SEASONAL AND THREE YEAR PROGRESSIVE MEAN SEASONAL PRECIPITATION AT POINTS IN AND NEAR SAN BERNARDINO VALLEY. CALIFORNIA

Ground water levels do not rise and fall immediately with the seasonal variations in precipitation, since the effect of one year is carried on into the next by accretion or depletion of ground water storage. As long as annual rainfall is below normal ground water levels will fall. A period of normal rainfall would tend to arrest downward movement, but nothing short of a period of rainfall well above normal would bring about a complete reversal and recovery. The cause of fluctuations of ground water level can be shown best by a study of aggregate excesses and deficiencies of precipitation. A graph of such aggregates has the same general shape and tendencies as a graph of ground water fluctuations.[1]

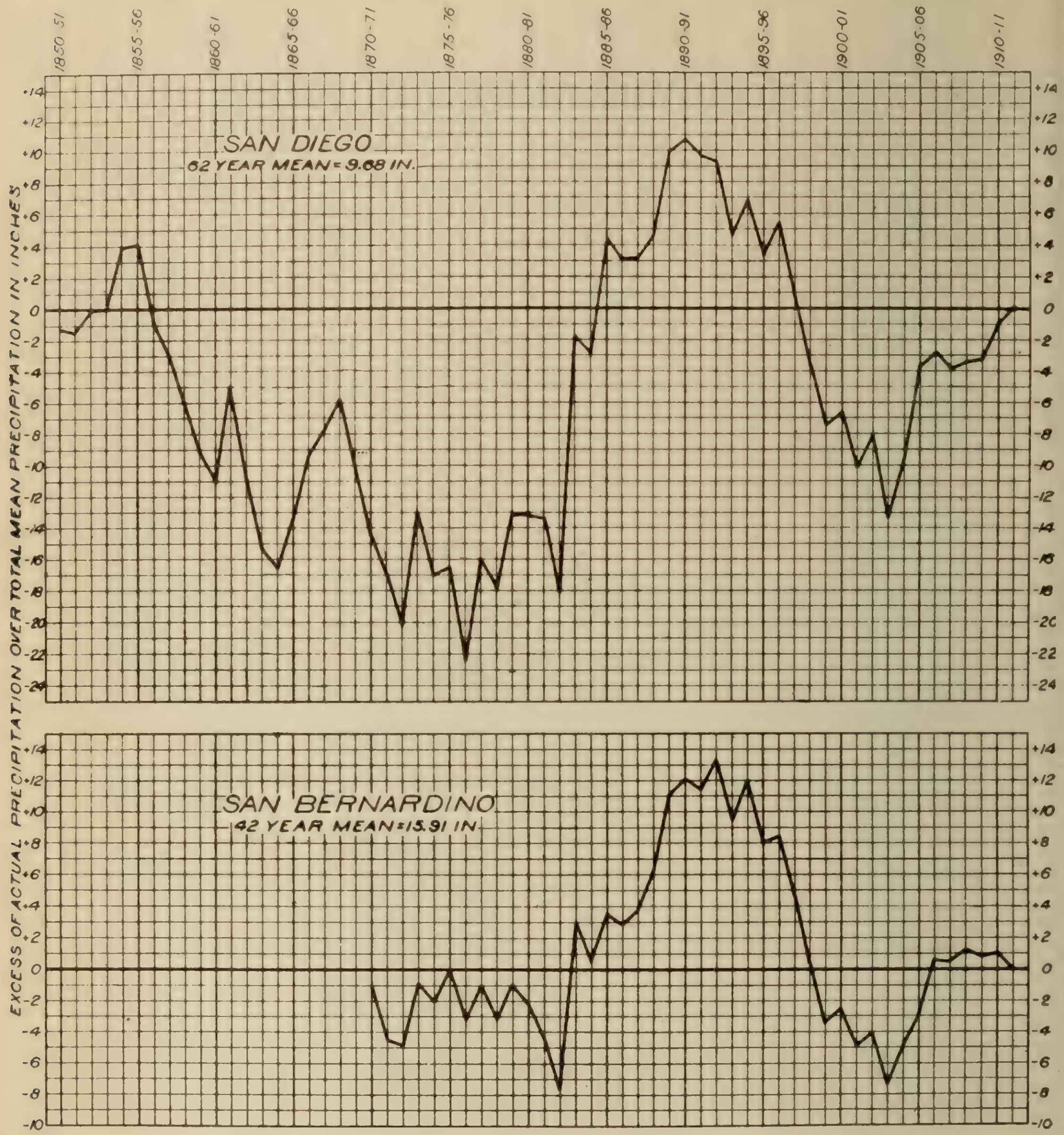

FIGURE-3-RESIDUAL MASS CURVES OF PRECIPITATION FOR TYPICAL SOUTHERN CALIFORNIA STATIONS

Residual mass curves of precipitation have been prepared for two typical stations (Fig. 3). The ordinate of any point on these curves is the difference between the aggregate rainfall from the beginning of the period of record to the date considered, and the aggregate rainfall which would have fallen during the same period if the annual rate was the observed mean. The diagrams show marked agreement in the general tendencies. There is the period of accumulation from the minimum of 1882–83 to the unprecedented maximum of 1891–92, followed by the period of rapid depletion ending in 1903–04. This was followed by a recovery to normal conditions during the period 1905 to 1907, which has been maintained down to present writing. The period of excessive drought 1891–92 to 1903–04 was, therefore, the necessary reaction from a period of several years unprecedented heavy rainfall, combined with a period of ordinary drought such as occurs in southern California at intervals of ten to fifteen years.

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[1] Spear, W. E., Study of the Water Supply Sources of Long Island; Report of Commission and Additional Water-Supply of New York City, Appendix 7, 1903, pp. 753-and 817.

The severity of this drought has not been exceeded during any other similar period since 1850. It is therefore to be inferred that acting under natural causes ground water levels in 1892 were at a high stage, in 1904 and 1905 were at a very low level, and that there was a recovery to normal conditions in 1907 or soon thereafter. This conclusion is confirmed by well records.

Run-off.

The relative sizes and positions of the catchment areas tributary to the San Bernardino basin are shown on figure 1. Santa Ana River drains the largest area. It embraces 182 square miles above the government gaging station at Warm Springs Canyon and 208 square miles above the mouth of the canyon. Cajon Basin has an area of about 88 square miles, Lytle Creek 52 square miles, Mill Creek 46 square miles, City Creek 21 square miles, and Plunge Creek 17 square miles. The other canyons are small, none of them exceeding ten square miles in area. The total mountain drainage tributary to San Bernardino Valley is about 480 square miles. The San Timoteo Creek drainage is about 135 square miles. The valley lands above the dike have an area of about 132 square miles. The total area tributary to the drainage outlet of the basin at the Bunker Hill dike is about 750 square miles.

The Santa Ana drainage area discharges more water from its canyon than any of the others, but Mill and Lytle creeks have a greater run-off per square mile. The explanation for this is to be found in the precipitation exposures of the drainage areas. Mill and Lytle creeks both drain mountain faces receiving copious rainfall. The upper Santa Ana drainage, however, is on a high plateau which on the east borders the desert and receives a much smaller precipitation than the lower portion to the west which corresponds with Mill Creek in productiveness of run-off. The small drainage areas west of the Santa Ana reach moderate elevations and probably yield less run-off per square mile than Mill Creek, although their exposure is good. The run-off from Cajon Basin is very small on account of the low elevations, gentle slopes and desert exposure. The yield per square mile of Santa Ana Canyon is probably a good average for the 480 square miles of mountain drainage.[1]

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[1] Lippincott, J. B., Water-Supply Paper No. 59, U. S. Geol. Survey, 1912, p. 53.

TABLE 13.

Monthly and seasonal discharge in second-feet of Santa Ana River at mouth of cañon.

(Drainage area, 182 square miles).

Season.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	Year.
1896-97	69	71	37	39	68	185	124	150	76	80	83	75	88
1897-98	67	54	45	33	49	48	40	39	61	48	43	43	48
1898-99	38	26	22	22	26	27	32	25	22	22	22	13	25
1899-00	12	17	21	23	23	22	23	25	57	22	19	11	23
1900-01	12	14	107	28	78	194	68	43	42	37	38	50	59
1901-02	49	48	26	24	24	38	79	51	36	33	26	25	38
1902-03	24	40	24	22	33	48	148	352	92	64	51	55	79
1903-04	52	47	30	27	26	33	64	53	41	44	45	46	42
1904-05	50	48	20	20	37	98	130	90	172	78	63	67	73
1905-06	68	49	48	38	47	63	530	274	245	172	119	80	144
1906-07	64	71	60	111	239	292	681	552	236	171	135	90	225
1907-08	73	84	119	60	82	135	125	99	76	62	64	64	87
1908-09	59	58	43	43	120	238	183	209	158	97	69	64	112
1909-10	62	58	53	136	(760)	112	103	105	85	69	65	62	139
1910-11	65	61	47	44	128	197	431	213	130	104	89	61	131
1911-12	65	64	57	51	49	46	94	100	85	62	60	59	66
16-year mean	52	51	48	45	106	111	174	149	101	79	62	54	86

(Includes river at Warm Springs Cañon and canal.)

TABLE 14.

Seasonal variation of run-off for Santa Ana River and precipitation at San Bernardino.

Season.	Discharge of Santa Ana River.			Precipitation at San Bernardino.	
	Mean second-feet.	Second-feet per square mile.	Per cent of 16 year average.	Depth in inches.	Per cent of 16 year average.
1896-97	88	0.48	102	16.74	112
1897-98	48	0.26	56	8.24	55
1898-99	25	0.15	29	7.49	50
1899-00	23	0.13	27	8.64	58
1900-01	59	0.32	69	17.36	116
1901-02	38	0.21	44	11.15	75
1902-03	79	0.43	92	17.42	117
1903-04	42	0.23	49	9.37	63
1904-05	73	0.40	85	20.78	139
1905-06	144	0.79	167	19.88	133
1906-07	225	1.24	262	23.17	155
1907-08	87	0.48	101	15.62	105
1908-09	112	0.62	130	17.36	117
1909-10	139	0.76	162	15.02	101
1910-11	131	0.72	152	16.34	110
1911-12	66	0.36	77	13.84	93
16-year mean	86	0.47	100	14.91	100

The Santa Ana is the only stream entering the valley upon which regular measurements have been made. The government has maintained a station at Warm Springs Canyon since 1896 for the purpose of observing flood flow and waste. During the irrigation season the river water is all diverted onto agricultural lands near Redlands and Highlands. The published government records include both flood flow and irrigation diversions so that the total run-off is available. There has been a storage reservoir operated in the interest of irrigation on Bear Creek, a tributary of the river, during the whole period of record. The maximum storage capacity has been 26,463 acre-feet up to the present season, when it was increased to 65,000 acre-feet. This partially regulates the monthly flow of the stream, but does not materially affect annual variations in run-off. The total mean seasonable flow of the stream for 16 years (1896–97) to date, is 86 second-feet or a continuous flow of 0.47 second-feet per square mile (Table 13).

The seasonal variations in run-off agree generally with the precipitation (Table 14). There are certain differences which may be noted however. Run-off extremes are much more intense than those of precipitation. A precipitation of 50 per cent of the normal produces a run-off of less than 30 per cent of normal, while precipitation 50 per cent above normal results in run-off 2½ times the normal. A year of precipitation above the average following one or more considerably below is not accompanied by a similar increase in run-off. It is therefore to be expected that ground water levels near stream channels would accurately reflect variations in precipitation, although there would be a lag in the complete response of depleted ground water levels to increased precipitation.

The waters which are available to the Water Conservation Association for spreading over the porous gravels are the surplus flood flow of Santa Ana River and Mill Creek. The volume of flood waste from Santa Ana River can be computed with fair accuracy, but no records of discharge are available for Mill Creek. For the purpose of making an estimate of the flood flow from Mill Creek it has been assumed that the run-off per square mile from the drainage area of 46 square miles is 0.60 second-feet continuous flow. This is fully justified by local knowledge of the two streams as well as the government records for San Gabriel River, which show a mean yield of between 0.60 and 0.70 second-feet per square mile for that stream. On this basis the total run-off of Mill Creek is one third of that of Santa Ana River. The use of water diverted for irrigation is similar for the two streams. The proportion of flood waste is possibly greater from Mill Creek than from Santa Ana River because of absence of storage regulation on the former stream. The use of the same percentages of flood waste to total run-off for Mill Creek as determined for Santa Ana River will therefore give conservative results for flood waste. This was the basis for computations.

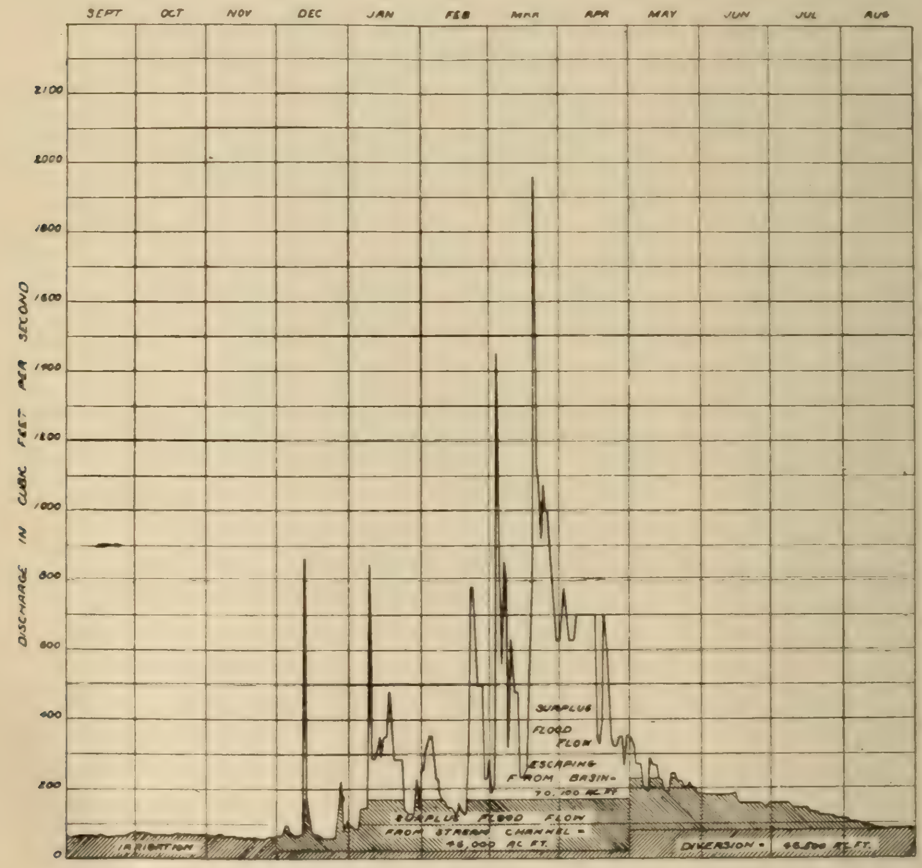

FIGURE 4 HYDROGRAPH OF DAILY DISCHARGE OF SANTA ANA RIVER FOR SEASON 1906-1907.

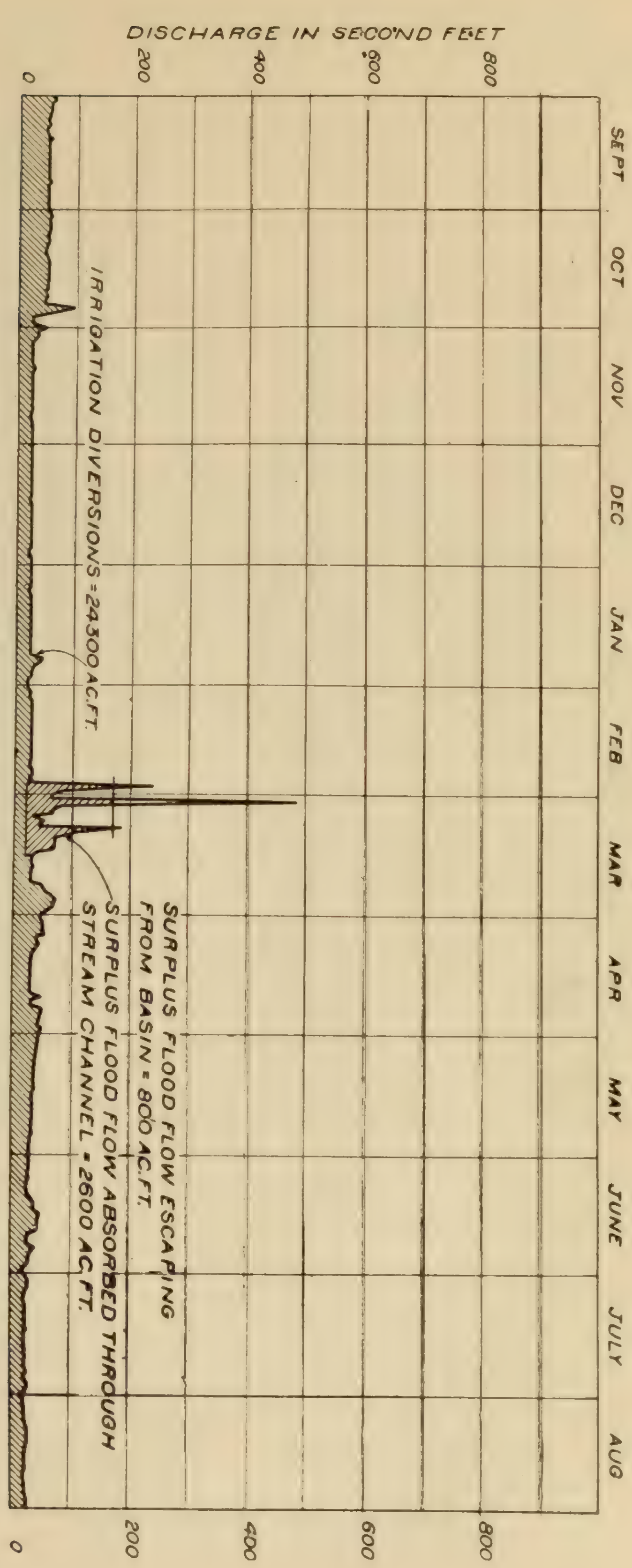

FIGURE-5-HYDROGRAPH OF DAILY DISCHARGE OF SANTA ANA RIVER FOR SEASON 1901-02

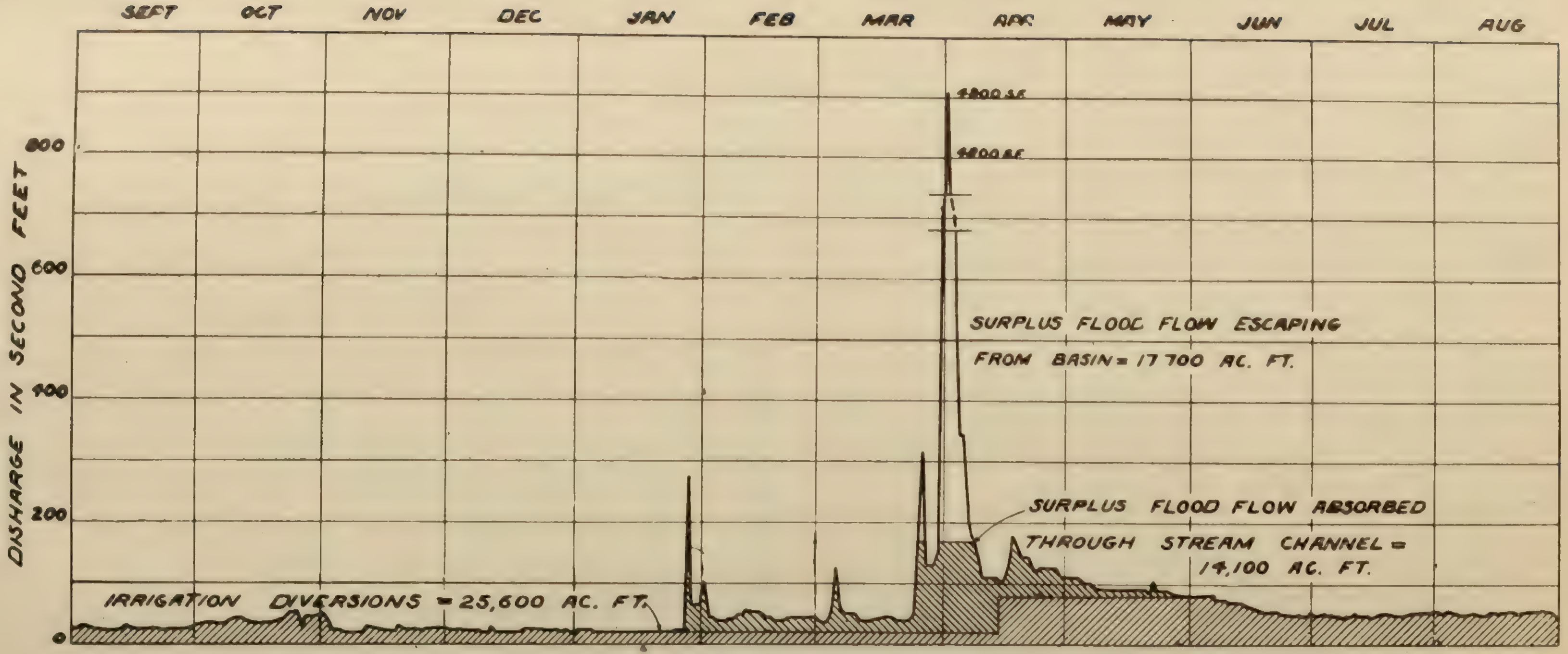

FIGURE-6-HYDROGRAPH OF DAILY DISCHARGE OF SANTA ANA RIVER FOR SEASON 1902-03

TABLE 15.

Volume of surplus flood water from Santa Ana River and Mill Creek available for water spreading.

Season September 1 to August 31.	Run-off, Santa Ana River at Warm Springs, acre-feet.			Computed run-off, Mill Creek,* acre-feet.			Total surplus available for water spreading.
	Total.	Surplus.	Per cent surplus of total.	Total.	Surplus.	Per cent surplus of total.	
1900-01	42,200	15,600	37	13,900	5,200	37	20,800
1901-02	27,700	3,400	12	9,200	1,100	12	4,600
1902-03	57,400	31,800	56	18,900	10,500	56	42,300
1903-04	30,700	1,500	5	10,200	500	5	2,000
1904-05	52,600	18,600	35	17,400	6,100	35	24,700
1905-06	105,100	66,100	63	34,700	21,800	63	87,900
1906-07	162,600	116,100	71	53,600	38,300	71	154,400
1907-08	62,800	21,400	34	20,800	7,000	34	28,400
1908-09	80,200	43,100	54	26,400	14,200	54	57,300
1909-10	101,200	63,600	63	33,400	21,000	63	84,600
1910-11	94,400	56,100	60	31,100	18,500	60	74,600
1911-12	51,100	9,000	18	16,800	3,000	18	12,000
Mean	72,100	37,200	42	23,700	12,300		49,500

*Total run-off Mill Creek assumed 33 per cent of that for Santa Ana River.

The computation of surplus flood flow from Santa Ana River was based on a daily hydrograph of the total flow of the stream at the mouth of the canyon from January 1, 1900, to October 1, 1912. Three typical seasons from this hydrograph are presented on figures 4, 5 and 6, the season of 1906–07 being one of unusually large run-off, 1901–02 considerably below normal, and 1902–03 very slightly below normal (Table 14). These diagrams show strikingly the extreme fluctuations of both annual and monthly flow, which characterize the stream even with the existing storage regulation. The irrigation diversions made by the Redlands and Highland canals at the mouth of Santa Ana Canyon are based on approximate estimates, since the records of the Bear Valley Mutual Water Company were not available. The maximum capacity of the two canals is stated by the manager of the company to be 100 second-feet, but this amount is seldom carried. For purposes of computation it was assumed that from the opening of the irrigation season, which varies from April 1st to May 1st to the first general storm in November or December, the combined diversion would be 80 second-feet, except when the discharge of the river was less than this amount, at which time the full flow would be diverted. During the winter season the combined diversion was assumed to be 20 second-feet. The date of opening of the irrigation season was assumed as April 1st in years of light spring rains, April 15th in years of normal spring rains, and May 1st in wet years. The diversions are indicated on the diagrams. The portion of the area within the total discharge line and above the line of irrigation diversion represents surplus flood flow which passes down the Santa Ana Wash, and is available for water spreading. The amounts in acre-feet were computed for each season and are presented together with the total run-off of the stream and the per cent of surplus in the first part of table 15. Considering the period as a whole, 42 per cent of the run-off of Santa Ana River was surplus flood flow which passed the irrigation canal intakes. The per cent in individual seasons varied from 5 to 71. The average annual amount for the period was 37,200 acre-feet, the minimum 1,500 acre-feet, and the maximum 116,100 acre-feet. Adding to these values the waste from Mill Creek, the average annual amount of water available for water spreading is 49,500 acre-feet, the minimum 2,000 acre-feet, and the maximum 154,400 acre-feet.

The extent to which the existing spreading system has been able to handle the available water is shown by the fact that for the last two years the average amount diverted was about 12,000 acre-feet, or 24 per cent of the average amount available. The limit of the system is the amount which can be diverted in a season like 1906–07. The flood flow period covered about 120 days that season. Eliminating the days when the river water would be too heavily charged with silt to admit into the ditches, there would remain approximately a 100-day actual working season. With an average diversion during this period of 150 second-feet the total amount spread would be 30,000 acre-feet. The minimum annual diversion is the amount available in a season like 1903–04, or 2,000 acre-feet. The system as now laid out and operated is therefore able to handle about 20 per cent of the surplus flood flow in years of excessive run-off, 43 per cent in years of average run-off such as 1907–08, and 100 per cent in years of extreme drought. Although good progress has been made toward conservation of flood waters, yet the larger floods which have great possibilities as sources of water for over-year storage still remain practically untouched. The storage of a greater proportion of such flood water should be the aim of the future work of the association.

Stream percolation.

The limited time available for the investigations made it impossible to obtain field measurements of percolation from natural channels. The importance of having data upon this subject is obvious, since without it no comparison can be made of the relative efficiency of natural and artificial percolation, nor can the volume of flood water be computed, which passes from the San Bernardino Basin to the ocean.

The most complete study of natural stream percolation upon streams of the same general type as those under consideration is that carried on by the Los Angeles aqueduct in Owens Valley, California.[1] Comparative current meter measurements were made at intervals of four to six weeks for eighteen months, on twelve mountain streams. The channel traversed the alluvial slope between mouth of canyon and upper edge of valley floor and varied from three to seven miles in length. The gravels were probably not as open and porous as those of southern

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[1] Lee, Charles E., Water-Supply Paper No. 294, U. S. Geol. Survey, 1912.

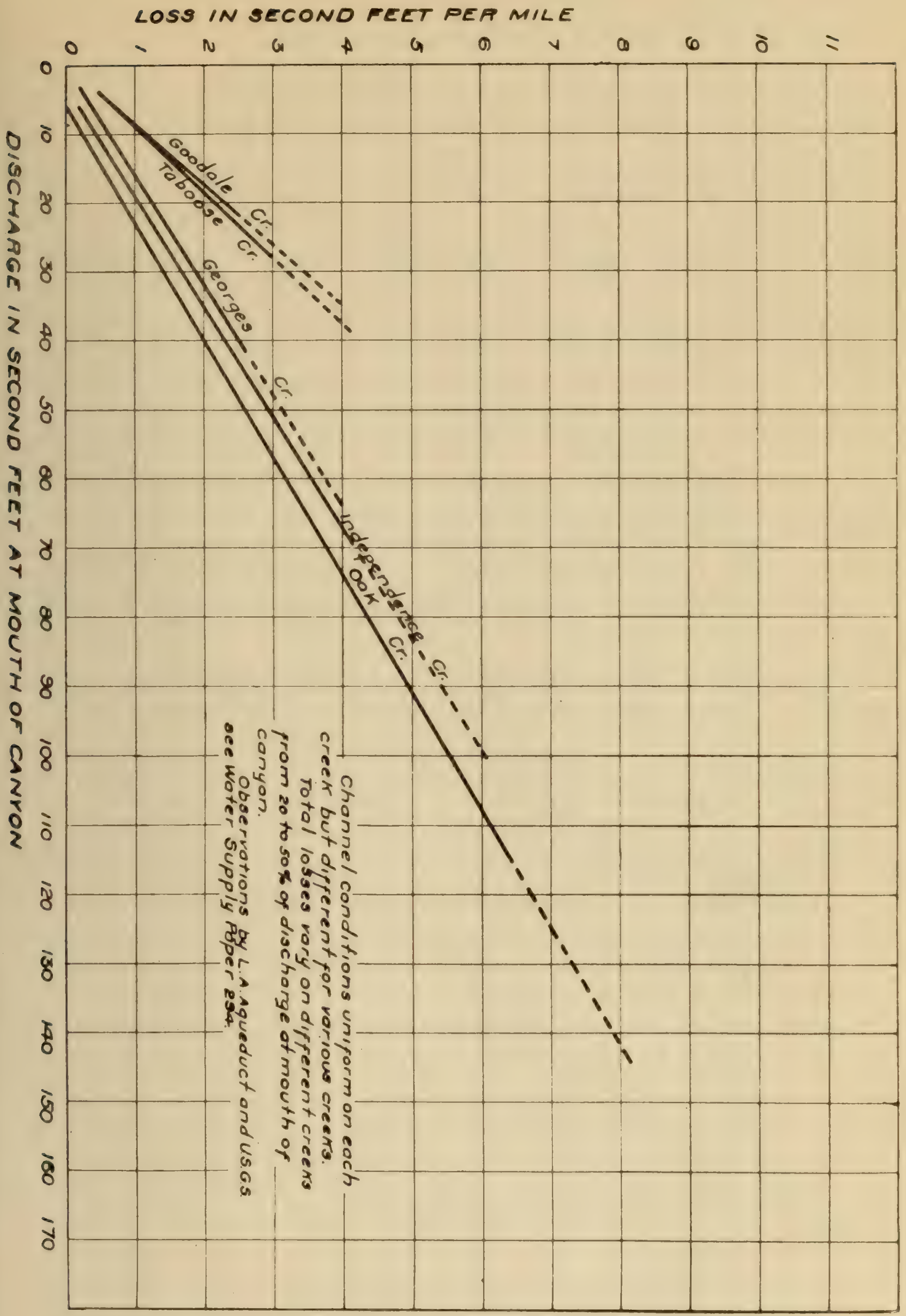

FIG. 7. Stream percolation diagram for Owens Valley creeks.

California and the channels were sufficiently deep and firm to carry flood flows. Careful graphical study of the data showed that for each channel a definite straight line relation existed between total discharge and total percolation loss, or loss per mile of channel. The relations differed for different streams depending upon the formation and the type of channel, but the general law was uniformly observed. Curves for five typical streams are shown on figure 7.

The only available measurements of stream percolation in southern California are those made by the Water Resources Branch of the United States Geological Survey in the spring of 1903.[1] These were made upon twelve streams flowing from the San Gabriel and San Bernardino Mountains during and after the moderate floods of April 16th. There were but two sets of measurements on most of these streams, but straight line curves constructed from these appear reasonable and give results consistent with the Owens Valley data (Fig. 8). The losses per mile of channel are approximately twice those observed in Owens Valley. This is to be expected, however, because of more open gravels traversed by the southern California streams and the tendency of flood water to spread out in a broad sheet. There were observations made on a few of the southern California streams which showed that the rate of loss per mile was greater for that portion of the channel low down on the slope where velocity was checked and the material was predominantly coarse sand. The data was not sufficient to show this variation, however, and in interpreting the diagrams the loss per mile should be recognized as an average.

The results for Santa Ana River are of value in connection with water spreading work. On April 24th a stream of 150 second-feet at the junction of Mill Creek was entirely absorbed before it reached the head of the Gage Canal, a distance of about eight miles. On May 16th a stream of 67 second-feet shrank to 30 second-feet by the time it reached Orange street, and entirely disappeared in the next half mile. The Riverside Trust Company diverted and spread the stream below Orange street bridge, however, so that natural percolation occurred only between Mill Creek junction and Orange street. The curve constructed from this data, although showing slightly less loss per mile than that for Pacoima Creek, is yet parallel to that curve and appears consistent with the other curves and entirely reasonable. It is stated by Mr. J. M. Mylne, engineer for the Riverside Trust Company, that immediately following a flood crest a discharge of 200 second-feet at the junction of Mill Creek will ordinarily disappear before reaching the head of the Gage Canal, but that later on when the stream has cut a narrow channel for itself a discharge of only 100 second-feet would be thus absorbed. Estimates based on an average loss of 150 second-feet would, therefore, be conservative.

A computation of the volume of surplus water absorbed by the gravels and also that passing immediately from the basin was made for Santa Ana River. It was based upon the daily hydrograph of the stream and a maximum percolation loss of 150 second-feet from surplus water following the Santa Ana Wash between the junction of Mill Creek and the head of the Gage Canal (Table 16). An estimate was also made of similar values for Mill Creek. The results indicate that as an average

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[1] Hoyt, John C., Water-Supply Paper No. 100, U. S. Geol. Survey, 1904, pp. 339-354.

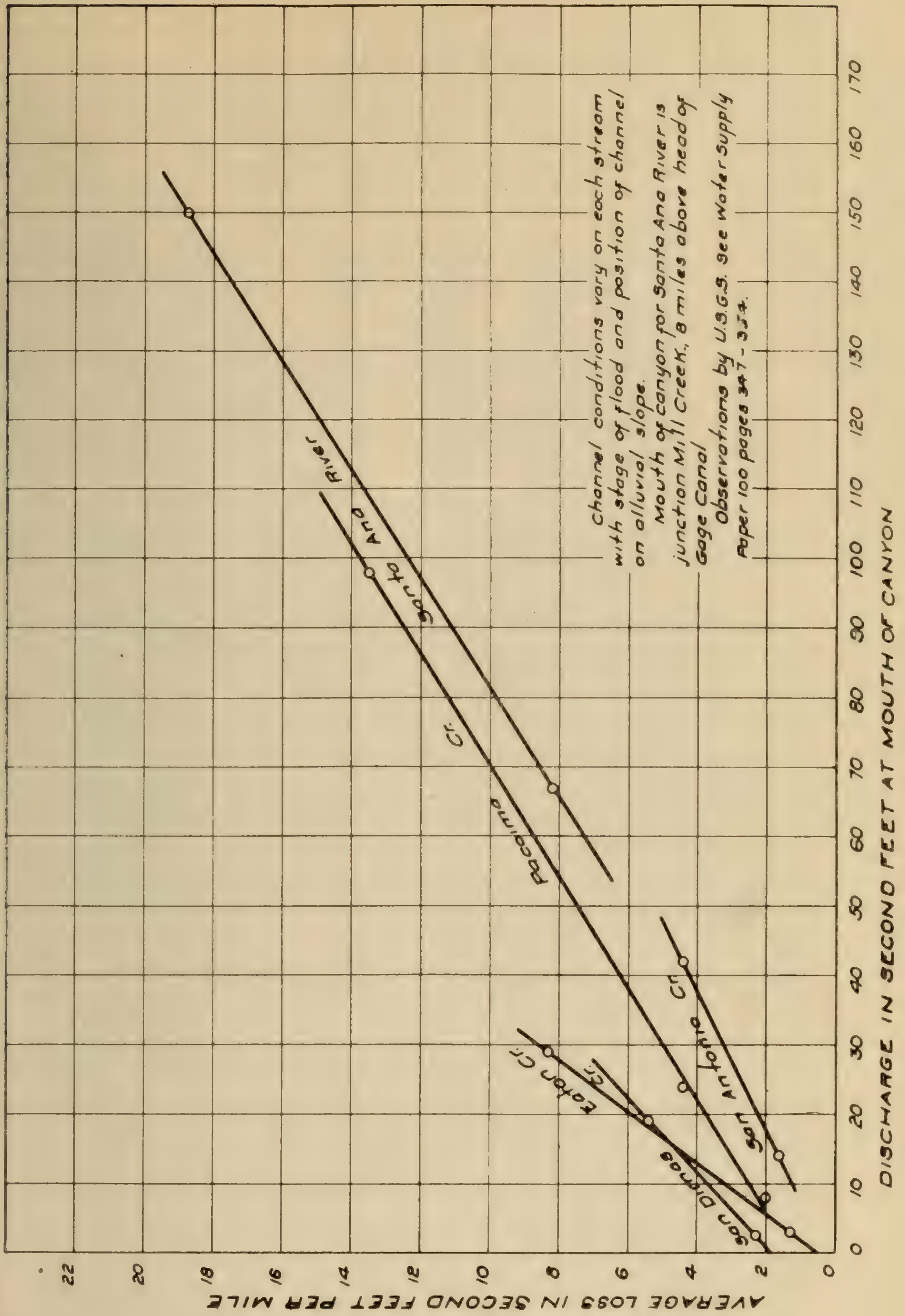

FIG. 8. Stream percolation diagram for southern California streams.

26,500 acre-feet or 54 per cent of combined surplus flood waters from Santa Ana River and Mill Creek cross the Bunker Hill dike immediately, and are lost from the basin. In the wet season 1906–07, 70 per cent was lost and in 1903–04 practically no water escaped from the basin.

TABLE 16.

Disposition of surplus flood water from Santa Ana River and Mill Creek without artificial control through water spreading.

Season September 1 to August 31.	Total surplus passing junction Mill Creek, acre-feet.	Disposition of Santa Ana surplus, acre-feet.		Disposition of Mill Creek surplus, acre-feet.		Total loss from basin, acre-feet.
		Percolation into gravels.	Lost from basin.	Percolation into gravels.	Lost from basin.	
1900-01	20,800	11,100	4,500	4,200	1,000	5,600
1901-02	4,600	2,600	800	1,000	100	900
1902-03	42,300	14,100	17,700	5,300	5,200	23,000
1903-04	2,000	1,500	----------	500	----------	----------
1904-05	24,700	17,500	1,100	4,600	1,500	2,600
1905-06	87,900	32,000	34,100	----------	21,800	55,900
1906-07	154,400	46,000	70,100	----------	38,300	108,400
1907-08	28,400	20,700	700	3,500	3,500	4,300
1908-09	57,300	32,200	10,900	3,500	10,700	21,600
1909-10	84,600	25,800	37,800	5,200	15,800	53,500
1910-11	74,600	32,900	23,200	----------	18,500	41,700
1911-12	12,000	8,400	600	2,700	300	900
Mean	49,500	20,400	16,800	2,600	9,700	26,500

With the present water spreading system in operation, the average amount lost from the basin will be reduced from 54 to 30 per cent of the combined surplus from the two streams, and the maximum loss from 70 to 50 per cent. In years of drought nearly the whole flow of the stream is absorbed by natural percolation and the only advantage of water spreading would be to get the water into the gravels of the upper slope, and thus store it for use at some future year instead of during the current year. The greatest benefit will result from artificial ground water storage when its primary aim is annual storage regulation. Very effective work has been accomplished already, but still greater possibilities remain.

GROUND WATER FLUCTUATIONS.

Changes in rate of ground water supply corresponding to variation in precipitation and run-off result in vertical movements of free ground water surface, and variation in artesian pressure. The first of these effects can be measured by observing the rise and fall of water in wells. The variation in artesian pressure can best be measured directly by placing pressure gages on capped wells. This, however, has never been done in the San Bernardino Valley. Another method is by determination of the artesian boundary and measurement of the flow from artesian wells. The flow of springs and seepages and the extent of swampy or moist land overlying the artesian basin furnish confirmatory evidence. The volume of ground water returning to the surface and flowing from the basin by way of Santa Ana River and Warm Creek would give still further knowledge. The data presented consist of measurements of free ground water level in wells outside the region of shallow artesian pressure, the artesian boundary at various times, the flow of a few artesian wells, and general information regarding springs and swamp conditions.

Ground water levels.

The most complete data regarding ground water levels in San Bernardino Valley are the measurements of depth to water made by the United States Geological Survey in a series of about 75 wells in San Bernardino and Redlands quadrangles. These wells were selected by Mendenhall[1] in 1904 from among those measured by J. B. Lippincott[2] in 1900. and were observed under the former's direction at intervals of a year or two until 1909. They were observed again in 1912 for the purposes of this study (Tables 17 and 18). Observations were made during the latter part of October each year when ground water levels are the lowest and pumping has practically ceased (Table 19). The wells are distributed throughout the basin and thus eliminate the possibility of drawing mistaken conclusions from local conditions (Plate I).

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[1] Mendenhall, W. C., Water Supply Paper No. 142, U. S. Geol. Survey, 1905, pp. 57 and 58.

[2] Lippincott, J. B., Water Supply Paper No. 60, U. S. Geol. Survey, 1902, pp. 115-134.

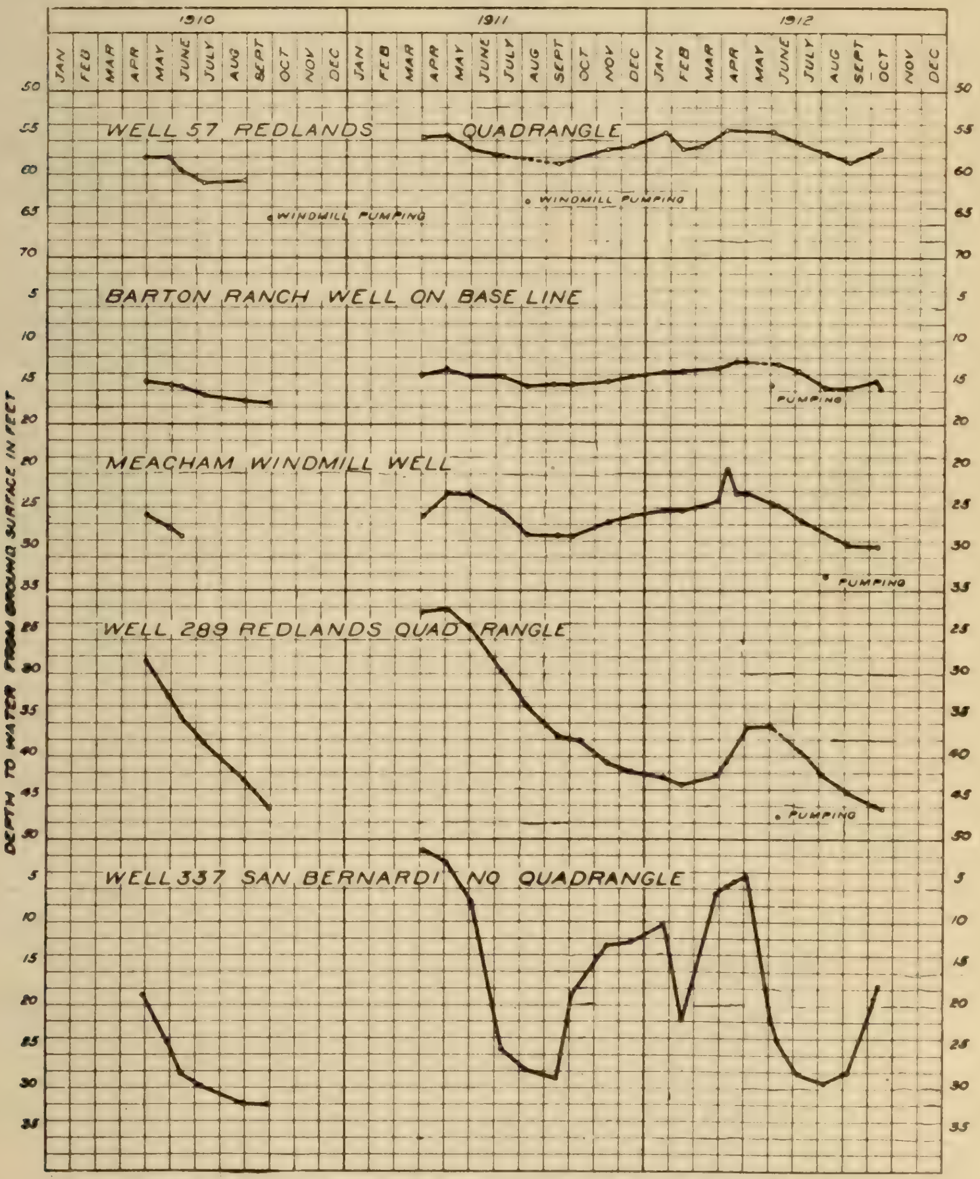

FIGURE-9 MONTHLY GROUND WATER FLUCTUATIONS IN TYPICAL WELLS IN SAN BERNARDINO VALLEY

TABLE 17.

Depth of water surface in wells in Redlands quadrangle.

Years 1900 to 1912.

No. of well.	Owner.	Elevation of surface feet.	Depth to water in feet.					
			1900, October.	1904, October.	1906, October.	1907, August 30	1909, October 15-17.	1912, October 16-18.
1	Dr. Meeker	1,996	278	281(dry)	(dry)			
2	Ward, Mills & Co.	2,005	72	50	28.5			46.6
5	R. P. McIntosh	2,250	25	27				21.0
7	R. P. McIntosh	1,910	92	78	57.0		66.3	71.5
9	L. Lyons	2,075	23	13	14.0		4.3	[2]14.4
14	W. J. Tench	1,720	160	164	139.0		126.2	
28	Garland Estate	1,570	176				200	249.7
42	C. L. Hayes	1,420	150	180(dry)				129.3
43	O. W. Harris	1,503	200	203(dry)	89.1		218.8	
45	A. C. Fowler	1,250	110	170(dry)	sealed		120.9	96.4
46	L. C. Smith	1,215	80	90(dry)	116.7			62.8
48	E. Vache	1,260	60	78	78.2		81.8	67.3
56	H. Bermudas	1,210	54	23	77.8		65.6	57.0
60	R. T. Curtis	1,123	50	68	70.2	65.8	57.2	49.1
66	Gansnor & Renwick	1,140	30	55	[1]64.0		44.4	37.0
80	Mrs. S. W. Sylvera	1,200	30	63	50.5	45.2	44.2	39.0
83	S. Mansfield	1,193	39	50	47.8	43.8	40.4	31.7
84	A. Lenanon	1,186	30	55	53.0	46.3	42.5	34.6
94	W. A. Nichols	1,246	54	70	54.0		50.4	38.5
102	Willis Miller	1,290	87	103	91.6		77.7	69.3
109	C. A. Shaw	1,267	50	82	74.5	67.2	58.5	41.1
113	A. Gregory	1,245	51	70	65.2	60.2	51.0	38.0
117	S. Ronzone	1,257	65	91	74.0	64.0	62.8	56.6
120	M. R. Gay	1,220	50	75	58.0	54.7	sealed	[5]54.8
123	J. F. Boyd	1,290	110	110	90.0		77.5	70.0
124	Wm. Lindenberg	1,220	40	65	57.0	50.4	42.7	34.2
125	H. S. Drew	1,167	34	30			36.0	
126	James Smith	1,164	34	51			44.2	33.7
130	Clark & Brotherton	1,195	33	48				pumping
131	J. J. Prendergast	1,200	34	41				pumping

132	H. H. Cole	1,140	32	45	47.0	----	35.8	32.9
139	H. R. Scott	1,120	12	20(dry)	----	----	24.0	----
145	E. F. Van Leuven	1,103	20	33	26.0	----	20.6	[3]25.7
155	F. Morris	1,260	65	95	96.3	----	84.1	76.1
289	—— Slack	1,227	67	93	----	----	47.5	46.1
290	Pattee & Nye	1,200	50	74	----	30.5	43.5	43.2
291	H. B. Robertson	1,180	53	70	42.5	32.8	38.2	37.5
292	L. H. Williams	1,160	40	55	----	----	----	[4]23.5
343	Haws & McKinley	1,125	----	10	4.0	----	----	3.0
350	Jane C. Goodman	1,140	12	32	20.7	16.5	16.0	10.1
386	California State Hospital	1,110	32	46	filled	----	filled	filled

[1] July 15 reported.

[2] Well 8, 30 feet east being pumped.

[3] Windmill pumping slowly.

[4] Observed in 6-inch casing well, 400 feet south of 292, approximate same elevation.

[5] Observed in well 200 feet deep, 600 feet south of well 120.

TABLE 18.

Depth to water in wells in San Bernardino quadrangle.
Years 1900 to 1912.

No. of well.	Owner.	Elevation of surface, feet.	Depth to water in feet.					
			1900. October.	1904. October.	1906. October.	1907. August 30.	1909. October 15-17.	1912. October 16-18.
73	W. L. Zader	980	50	60	61.2	----------	57.8	
76	Mrs. B. R. Atkins	980	42	57	57.0	----------	46.7	----------
78	W. D. Sores	875	4	12	12.5	----------	11.2	----------
104	Riverside Trust Company	1,077	flowing	5	4	----------	flowing	flowing
178	G. W. Curtis	1,088	25	43	37.0	----------	30.8	----------
181	W. A. Thomas	1,078	2	10	31.4	----------	8	----------
189	E. M. Cooley	1,019	60	42	45.3	----------	47.5	----------
199	Washington School	1,043	77	82	77.6	----------	76.1	----------
201	Fred Pooles	955	48	60	56.4	----------	56.0	----------
277	G. Renwick	1,090	35	40	----------	----------	22.8	16
280	E. Memory	982	55	62	----------	----------	----------	(53)
282	C. H. Westmyer	1,069	7	21	sealed	----------	sealed	sealed
316	Geo. M. Cooley	1,150	42	60	61	----------	----------	40
317	Geo. M. Cooley	1,150	42	60	61	----------	----------	pumping
317½	Geo. M. Cooley	1,150	42	60	61	----------	----------	pumping
318	E. J. Stiles	1,196	39	50	48.5	35.8	----------	33
319	James Dickson	1,179	34	48	----------	----------	----------	30
329	M. S. Severance	1,288	145	173	sealed	sealed	----------	[1]148
341	H. N. Stones	1,141	54	63	70.5	49.7	----------	40
354	S. F. Kelley	1,170	49	75	77.7	62.8	48.0	36
357	S. H. Johnson	1,182	60	100	89.3	pumping	60.5	49
364	F. Alvarado	1,188	53	70	78.2	54.8	47.4	[3]42
367	D. W. White	1,109	20	35	sealed	sealed	20.5	pumping
370	F. L. Holcomb	1,128	28	50	43 (dry)	43 (dry)	34.0(dry)	filled
375	Dexter Field	1,147	35	58	65 (dry)	55.2(dry)	35.1	24
389	S. E. A. Palmer	1,176	52	77	85.5	70.4	46.9	[2]35
398	N. M. Swarthout	1,142	27	48	55.6	46.8	28.7	[3]19
400	J. H. Lytle	1,166	31	80	73.6	60.4	40.8	29
416	H. H. Ham	1,121	31	46	55.1	46.3	filled	filled

445	A. W. Bemis	1,114	10	[4]37	----	----	[4]13.0	[4]9
450	S. A. Jackson	1,116	22	40	50.5	41.2	23.7	16
457	J. F. Cadd	1,068	11	16	26.2	16.5	filled	filled
458	H. E. Gardner	1,089	10	26	sealed	sealed	sealed	sealed
470	Chas. Morris	1,078	15	24	20	filled	filled	filled

[1] Observed depth in well of W. R. Severance, 500 feet east, approximate same elevation.

[2] Observed depth in well 393, 500 feet west.

[3] Windmill pumping.

[4] Observed depth in well 444, 500 feet northwest and subtracted 4 feet—difference of surface elevation.

TABLE 19.

Monthly variation in groundwater level for five wells in San Bernardino Valley.

Date.	Depth to water in feet.				
	Well 57. Redlands quadrangle.	Well 289. Redlands quadrangle.	Well at Barton ranch on base line.	Well 337, San Bernardino quadrangle.	Meacham wind mill well, Section 35. T. 1 N., R. 4 W.
1910—	[1]	[2]	[3]	[1]	[1]
April 28	58.08	28.60	14.95	18.86	26.00
May 26	58.00	32.92	15.25	24.50	27.50
June 11	59.50	35.25	15.58	28.20	28.50
July 9	61.00	38.32	16.60	29.90	----------
August 27	60.80	42.89	17.20	31.95	----------
September 28	65.30	46.30	17.50	32.04	----------
1911—					
April 4	55.55	22.60	14.03	1.27	26.00
May 2	55.25	22.02	13.40	2.98	23.30
June 1	57.00	24.55	14.20	7.65	23.48
July 8	57.82	29.80	14.20	25.25	[5]25.55
August 8	[5]63.20	33.75	15.42	27.85	[5]28.20
September 14	58.70	37.35	15.09	28.90	28.30
October 3	58.10	38.03	15.10	18.70	28.20
November 14	57.00	40.75	14.88	12.81	26.84
December 14	56.60	41.80	14.11	12.31	26.00
1912—					
January 23	55.00	42.50	13.70	10.18	25.35
February 15	57.00	43.20	13.59	21.75	25.35
March 7	56.70	----------	----------	----------	----------
March 26	----------	42.09	13.07	6.60	24.16
April 9	54.78	40.60	12.90	5.84	19.30
April 19	----------	----------	12.52	5.10	23.30
May 3	----------	36.53	12.52	4.54	[5]23.30
June 3	55.06	36.31	15.09	21.46	[5]24.69
June 10	----------	[4]47.10	12.86	24.10	[5]24.80
July 6	56.40	39.25	13.65	28.07	26.50
August 7	57.40	42.05	15.65	29.15	[5]33.20
September 5	58.60	44.18	15.60	28.00	29.62
October 9	----------	----------	14.90	19.08	29.80
October 12	57.00	45.95	15.83	17.64	29.80
October 16	----------	46.10	----------	----------	----------

Observations by Riverside Water Company.

[1] Top of casing to water surface.

[2] Top of lagging to water surface.

[3] Top of blocks to water surface.

[4] Pumping.

[5] Windmill pumping.

Well 337 on June 9, 1908, 33.60.

Meacham windmill well on June 9, 1908, 34.35.

Many of these wells are 7-inch casing windmill wells of moderate depth. Such wells are more reliable for making observations since they are not as liable to experience the wide artificial fluctuation which occur in deep pumped or artesian wells. They are slow to register ground water fluctuations when situated far from some stream channel which is a source of percolating water, but they no less surely experience these fluctations. These conditions are well shown from monthly observations of ground water level made by the Riverside Water Company during the last three years in four wells east of San Bernardino, and one well near Redlands Junction (Table 19 and Fig. 9). Well 57 in the Redlands quadrangle and the Barton and Meacham domestic well are shallow. Well 289 Redlands quadrangle is a deep casing well equipped with centrifugal pump. Well 337 San Bernardino quadrangle is an old artesian well reported to be 325 feet deep, which reaches one or more of the artesian strata drawn upon by the large artesian wells along Base Line, Ninth and Sixth streets, east of San Bernardino. The shallow wells have a range of annual fluctuation of from two to six feet with the lowest level in September or October. The pumped well has a fluctuation of from 10 to 25 feet with a minimum just preceding the first general winter storm. The old artesian well has an annual fluctuation of from 25 to 30 feet. The record on this well is of particular value since it shows the marked effect produced upon artesian pressure by opening a number of the large flowing wells. The result is shown in this well by an immediate lowering in water levels of from 15 to 20 feet. The owner of the well states that he has observed the level drop in this manner within an hour of the opening of large wells along Sixth street. Partial recovery at the time flowing wells are capped is equally rapid, but full recovery is delayed until the basin is recharged from winter rains. Similar conditions are reported in many other wells around the rim of the artesian area. These records show the greater reliability of wells which do not reach artesian strata for determinating annual tendencies in ground water fluctuations.

The government records in Tables 17 and 18 show that ground water levels fell materially throughout the basin from 1900 to 1904. Wells situated away from stream channels continued to fall until 1906, but those near stream channels showed partial recovery in that year. In 1907 all observed wells showed recovery. The observations of 1909 showed still further recovery, and in 1912 the levels in many wells were higher than in 1900. The average rise of ground water levels throughout the basin from the lowest levels of 1904 or 1906 to the level of 1912, is 30 feet. Some of the most marked recoveries were in the region north and northwest of San Bernardino; for example, the rise in Well 354 was 42 feet and in Well 389, 50 feet. This region on account of its relative position can not have received a greater benefit from water spreading than any other, and it is doubtful if it benefits even by increased deep artesian pressure. The total amount of water spread by the association during the last four seasons has not exceeded 30,000 acre-feet, a volume of water which would represent about 90,000 acre-feet of saturated gravels, or three feet depth over 47 square miles. Within that four-year period water levels had risen at least 15 feet over a larger area and had commenced to rise rapidly even before water spreading was practiced extensively. The conclusion is that water spreading has had comparatively little to do with the general recovery of ground water levels in the San Bernardino Valley.

TABLE 20.

Discharge of Artesian Wells in San Bernardino Valley.

In miner's inches.

McCrary Tract wells.		Cooley wells, Ninth street, San Bernardino.		Heap wells, Ninth street, San Bernardino.		Katz-Walkinshaw wells.	
Date.	Discharge.	Date.	Discharge.	Date.	Discharge.	Date.	Discharge.
1898.							
Apr. 16	292.7						
July 26	315.4						
Aug. 26	315.8						
Sept. 6	340.6						
Sept. 25	357.8						
Oct. 2	349.4						
1899						1899.	
July 12	310.0					July 29	100.2
July 25	296.3					Aug. 1	97.6
Aug. 8	281.0					Aug. 8	102.0
Sept. 26	265.2					Aug. 25	116.2
Oct. 19	272.0					Sept. 26	114.5
						Sept. 30	116.2
1900.						1900.	
Mar. 15	258.6					Aug. 10	112.3
June 19	245.9						
July 19	215.7						
Aug. 6	220.8						
Sept. 6	203.0						
Oct. 3	193.4						
1901.						1901.	
Mar. 28	203.0					May 14	112.4
June 4	184.0					May 28	112.4
June 18	147.3					June 28	104.8
July 8	197.6					July 24	97.2
July 19	192.5					Aug. 31	82.4
Aug. 1	188.7					Sept. 28	73.5
Aug. 31	180.2						
Sept. 12	172.8						
Sept. 28	172.3						
1902.		1902.		1902.		1902.	
Jan. 8	168.3	May 22	73.0	July 12	110.0	July 1	90.5
Mar. 12	165.7	July 12	65.0	July 21	110.0	Aug. 1	75.0
Apr. 30	157.9	Aug. 12	62.0	Aug. 12	110.0	Sept. 1	89.0
May 24	154.8	Aug. 26	58.9	Aug. 26	110.0	Oct. 1	80.0
June 12	150.3	Oct. 13	57.8	Oct. 13	110.0		
July 12	138.3	Oct. 21	63.2	Oct. 21	101.8		
July 21	137.4						
Aug. 12	135.9						
Aug. 26	129.7						
Sept. 30	129.7						
1903.		1903.		1903.		1903.	
May 22	157.8	Not measured.		May 19	110.0	Not measured.	
July 13	140.6			July 20	101.8		
Aug. 4	138.8			Aug. 4	101.8		
Sept. 1	132.0			Sept. 2	102.0		
Oct. 27	125.1			Nov. 27	102.0		

TABLE 20—Continued.

Discharge of Artesian Wells in San Bernardino Valley.

In miner's inches.

McCrary Tract wells.		Cooley wells, Ninth street, San Bernardino.		Heap wells, Ninth street, San Bernardino.		Katz-Walkinshaw wells.	
Date.	Discharge.	Date.	Discharge.	Date.	Discharge.	Date.	Discharge.
1904.		1904.		1904.		1904.	
Feb. 8	121.6	July 5	33.0	Feb. 18	102.0	May 5	99.0
Aug. 26	71.0	Oct. 8	33.0	May 5	90.0	Aug. 4	76.0
Sept. 16	70.5	Dec. 29	33.0	Aug. 3	71.5	Oct. 11	76.1
Oct. 7	66.9			Sept. 16	71.5		
Dec. 29	65.0			Oct. 8	71.5		
				Dec. 29	71.5		
1905.		1905.		1905.		1905.	
June 2	107.2	June 10	41.9	June 10	71.6	Jan. 5	68.1
July 6	102.0	July 17	45.1	July 17	86.5	May 26	88.5
Oct. 5	87.4	Oct. 5	39.0	Oct. 5	61.0	July 17	72.6
						Aug. 4	66.6
						Sept. 28	61.8
1906.		1906.		1906.		1906.	
July 19	176.6	Jan. 1	23.0	Aug. 1	102.0	Aug. 15	85.7
Aug. 23	168.8	Aug. 1	54.4	Aug. 23	85.8	Aug. 23	92.8
Nov. 8	158.7	Aug. 22	57.8	Nov. 8	81.5	Nov. 8	60.9
		Oct. 23	54.2				
1907.		1907.		1907.		1907.	
Year none.		Not measured.		Aug. 29	177.7	Not measured.	
				Sept. 28 capped.			
1908.		1908.		1908.		1908.	
Apr. 21	278.1	Not measured.		Mar. 21	147.3	Not measured.	
July 28	195.1						
Aug. 13	195.1						
Sept. 5	174.4						
1909.		1909.		1909.		1909.	
Sept. 28	209.9	Not measured.		Sept. 28	89.1	Not measured.	
1910.		1910.		1910.		1910.	
May 26	195.8	Sept. 22	81.0	Sept. 22	98.2	Dec. 22	105.0
June 11	192.8			Nov. 8	72.8		
July 9	179.2						
Aug. 9	216.2						
Aug. 27	204.6						
Sept. 28	209.8						
Nov. 8	245.4						
1911.		1911.		1911.		1911.	
June 16	277.0	June 16	90.0	June 16	129.5	June 27	117.0
July 25	241.6	July 25	80.0	July 25	114.7	July 21	107.8
Aug. 17	240.4	Aug. 29	80.0	Aug. 29	107.2	Aug. 3	99.0
Sept. 21	242.8	Sept. 20	80.0	Sept. 20	107.2	Aug. 21	99.0
				Oct. 18	147.4	Sept. 20	94.6
1912.		1912.		1912.		1912.	
June 24	256.8	June 22	115.0	June 22	124.3	June 24	112.4
July 18	226.4	July 16	104.0	July 16	119.1	July 16	112.4
Aug. 27	227.8	Aug. 24	98.6	Aug. 24	105.8	Sept. 19	90.4
Sept. 25	212.5	Sept. 19	98.6	Sept. 19	104.3		

A suggestion as to the most important cause of these marked fluctuations of ground water surface is to be found in their similarity to the broad rainfall fluctuations, as shown by the residual mass curve for San Bernardino (Fig. 3). This curve as previously explained should exhibit the same tendencies as natural ground water fluctuations in the region for which it is prepared. A comparison of the data of Tables 17 and 18 and Fig. 3 show a marked similarity in general tendencies. The broad fluctuations of ground water surface during the last twelve years are, therefore, consistent with rainfall and run-off variations during the same period.

Artesian Conditions.

The only available series of measurements of artesian flow covering the period under investigation are those of the Riverside Water Company. These are not complete, nor do they represent in all cases the flow of a well or group of wells as influenced solely by natural conditions. There have been selected from the company's records four sets of measurements which are fairly complete and register natural tendencies most accurately. These are the McCrary tract wells, a group on Warm Creek, near base line 1¼ miles west of Harlem Springs; the Cooley Tract well on Warm Creek, between Ninth and Sixth streets; the Heap well on Ninth street just west of Warm Creek, and the Katz-Walkinshaw wells west of Warm Creek at First and D streets, San Bernardino. The McCrary Tract wells are situated just west of the buried hills, previously described along the line of the Harlem Springs defile, and pressures here should register very quickly any changes in rate of ground water supply. The Cooley and Heap wells are situated 1½ miles further west and their fluctuations might be expected to lag a little. The Katz-Walkinshaw wells are still further west, but hardly far enough to be directly affected by Lytle Creek, and hence would have greater lag than the Cooley and Heap wells. The records confirm these probabilities (Table 20 and Fig. 10). The McCrary well records show that artesian flow decreased steadily from year to year from 1898 to 1904, inclusive, with slight recoveries in the spring of 1901 and 1903. Beginning with 1905 there was a marked recovery culminating in 1907 or 1908. Following this was a period of comparative stability with a slight gain in 1911, and falling off in 1912. The same general fluctuations are shown by the other artesian well records, but with less intensity. Following the year 1904 there was a lag of one year in the Heap and Cooley well, and two years in the Katz-Walkinshaw wells before the effect of increased rainfall of 1905 and 1906 was felt.

These fluctuations correspond in their general tendencies with the fluctuations observed for free ground water surface throughout the basin (Tables 17 and 18). This is to be expected, since artesian flow is controlled by artesian pressure and artesian pressure controlled by the level of free ground water surface surrounding the artesian basin. Hence water spreading has had no more to do with increased artesian

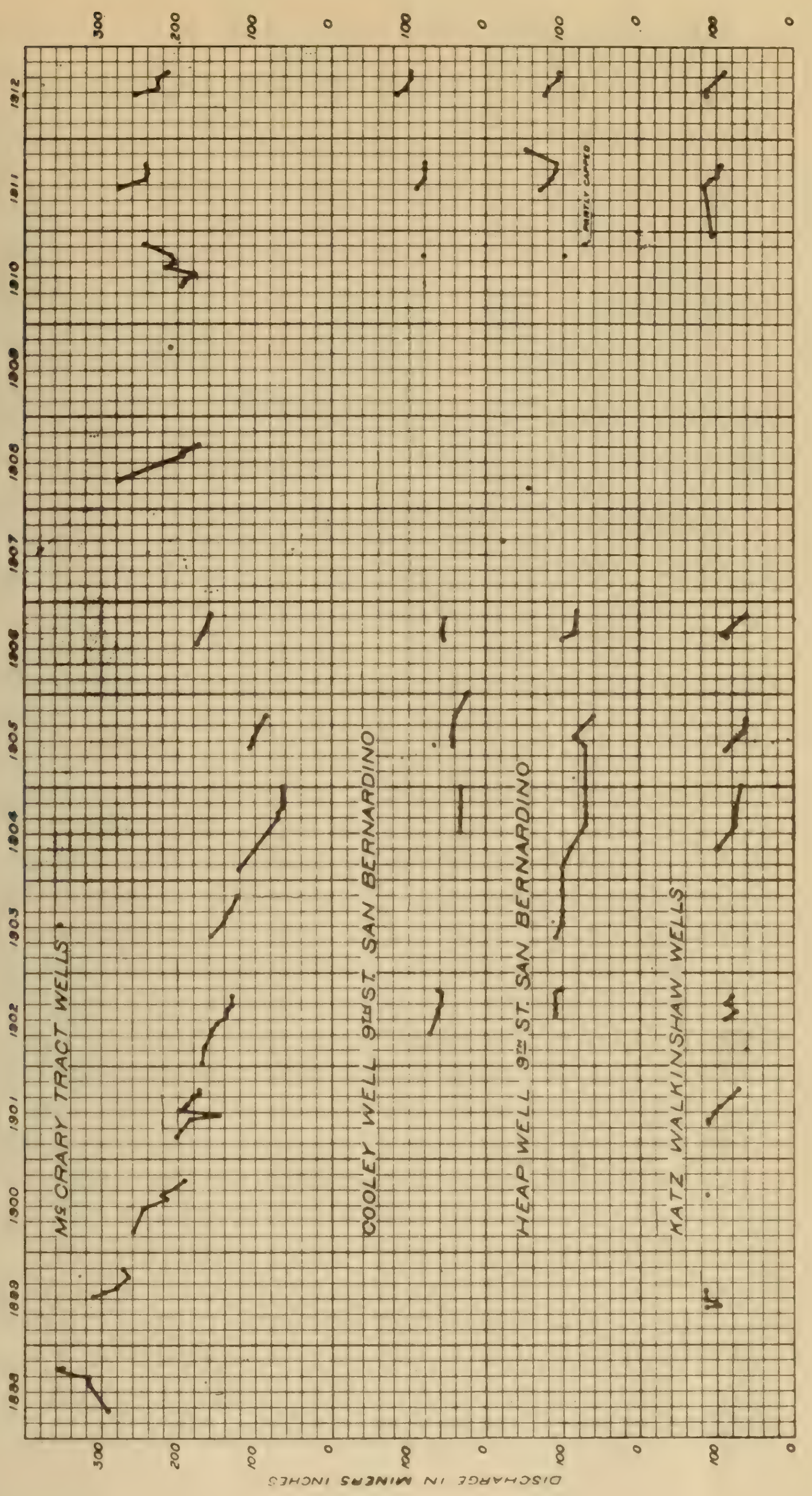

FIGURE-10-DISCHARGE OF TYPICAL ARTESIAN WELLS IN SAN BERNARDINO VALLEY

flows in these wells since 1904 than with the recovery of free ground water levels. Since observations on ground water levels showed consistent and similar fluctuation throughout the basin, there is every reason to believe that artesian flow throughout the basin would follow the same variation as has been observed in these four groups of wells. The McCrary wells are so located that they could not be directly benefited by the water spreading as carried on, yet they exhibited marked recovery even before water spreading was attempted on the upper Santa Ana fan. There is no possible conclusion but that ground water recovery has been in large part the result of some other cause than water spreading.

The systematic and thorough capping of flowing wells throughout the basin which has been accomplished during the last few years may be partially responsible for the remarkable recovery. Prior to the dry years the importance of conserving artesian water was not realized and many of the large wells were allowed to flow summer and winter, whether needed or not. By the year 1904 most of the big irrigation company wells were equipped with caps which were closed down during the winter. Through local agitation in southern California a law was passed by the California State Legislature in 1907 and amended in 1909, declaring artesian wells a public nuisance when not equipped with proper mechanical devices with which to arrest their flow, and the waste of artesian water was declared misdemeanor. The efficient administration of this law was brought about in the San Bernardino Valley through the appointment of an officer by the district attorney of San Bernardino County, whose duty is to inspect all flowing wells and keep the district attorney informed regarding cases of failure to obey the law. As a result of these efforts practically all private, as well as company, wells have been closed since 1909, and unnecessary losses from the basin reduced to a minimum. This work has assisted in conserving the natural increase in the rate of recharge of the basin, and is of great public benefit.

However, the most important cause of ground water recovery is to be found in the increase of natural ground water supply as exhibited by precipitation. A careful comparison of the flow of the McCrary wells and the residual mass curve of precipitation at San Bernardino shows a remarkable agreement even to the details (Figs. 3 and 10). The observed flow of 1898 has never been exceeded since nor has the aggregate returned to the high level of 1898. Both have returned to conditions of 1899, however. The decrease in flow continued from 1898 to 1904, inclusive, with slight spring recoveries in 1901 and 1903, just as exhibited by the mass curve. Marked recovery commenced in 1905 and continued to 1907, following which was a period of little fluctuation to date, with the slight increase in 1911, and falling off in 1912. A more perfect agreement of related variables could hardly be expected. The dependence of ground water fluctuations upon precipitation is thus established beyond a doubt.

The investigation of artesian boundaries and swamp conditions still further corroborate these conclusions. The limit of the area underlaid by artesian pressure as indicated by existing wells has been determined several times in past years, and was again determined for the purpose of these investigations. The approximate original artesian limit, the limit in 1900 and again in 1904, has been indicated by Mendenhall

(Plate I).[1] The original limit represented conditions as they were at their maximum in the late eighties. The limit of 1900 was very much smaller, the area having been reduced by about 50 per cent. The limit of 1904 was still further shrunken. From all information at hand the limit of 1904 was the minimum reached as a result of the years of drought. Since 1904 there has been a gradual expansion of the area. In the spring of 1912, following the storms of March and early April and preceding the opening of large flowing wells in May, the boundary was found to have advanced on all sides of the basin, from what it was in 1904, by distances of from one fourth to one and one fourth miles (Plate I). Although the advance was greatest along the east border of the basin where the slope is flat, yet the recovery is equally great on the north where the slope is steeper. Many wells of moderate depth near and in San Bernardino which originally flowed, but had not done so for twelve or fifteen years, commenced to flow again about the year 1909 and have continued to do so since with increasing pressure. Hence, the limits of artesian flow have exhibited the same general tendencies as have precipitation, ground water levels and artesian flow from deep wells.

In connction with the study of artesian limits a very interesting fact has been noted. Although this remarkable expansion of the artesian area was noted in late April of 1912, yet in May, when the large artesian wells operated by the Riverside Water Company and the Gage Canal were opened, the artesian pressures throughout the basin were so reduced that the flow ceased from many of the wells outside of the minimum area of 1904. The opening of the Riverside Water Company's wells was also accompanied by the sudden drop of water level already noted for Well 337, San Bernardino quadrangle (Table 19). The boundary was determined again on October 9, 1912, four days after the closing of many Riverside Water Company wells as a result of the rain storm of October 2d and 3d. The artesian limit on October 1st was practically that determined by Mendenhall in 1904, and represented conditions following the summer irrigation period with all wells still open which had been uncapped during the summer. On October 4th and 5th and thereafter, immediately following the closing of the Riverside Water Company's wells, wells outside the minimum area began to flow or rise rapidly in the casing and by October 9th the artesian limit had advanced well out toward the limit of late April. The storm of October 2d and 3d followed a long dry summer and produced no appreciable run-off from the mountains. It could not, therefore, be ascribed as the cause of the rapid expansion of the artesian limit. The only explanation is that the pressure relief afforded by many large flowing wells ceased and pressure throughout the basin returned to that of the spring except as reduced by the water taken from the basin during the summer. That this condition occurs each year is shown by the common statement of farmers within the zone of expanded artesian pressure around the 1904 limit, that their wells flow in the winter and spring time, but cease just as soon as the deep flowing wells are uncapped. The condition is interesting in connection with the Coastal Plain artesian basins where ground water levels have not recovered materially since 1904 and where attempts to close artesian wells during the winter months have not been successful. The basins are not similar as regards the alluvial material and relation of natural ground water supply to artificial draft, but yet the conclusion is justified that the capping of artesian wells when not in use is a very important step toward conservation of ground water resources.

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[1] Mendenhall, W. C., Water-Supply Paper No. 142, U. S. Geol. Survey, 1905. Plate VII.

Returning again to the San Bernardino Valley artesian conditions, there is still further evidence regarding the relation of artesian pressure and of accumulated rainfall excess or deficiency. A very important ground water outlet is evaporation from lands kept moist from below by artesian pressure forcing water up through the pores of comparatively impervious overlying clays, or through larger natural openings. Where the soil is kept quite wet there is a swamp condition with rank vegetation. The evaporation from such a surface is greater than that from a free water surface. The extreme fluctuations of artesian pressure are accompanied by corresponding changes in the intensity of such surface conditions. It is a matter of common knowledge that the lands north and east of San Bernardino, which were very swampy about 1890, were completely drained during the drought ending in 1904, and as a result have been put under a very profitable cultivation. The ranch of Mrs. A. Tompkins, between Seventh and Fifth streets, west of Mount Vernon avenue, was thus drained. The lower portion of this ranch was formerly an impassable swamp in which cattle bogged down and from which a stream of seepage water flowed. The swamp disappeared during the dry period and since then has been continuously farmed. About the year 1910, however, the ground water level began to rise beneath this land and swampy conditions reëstablish themselves. In the winter of 1910–11 the stream of seepage water reappeared. If artesian pressures continue to increase this land will eventually return to its former condition. Other lands are experiencing a similar return to swamp conditions.

Judging by such evidence as this the depleted ground water conditions culminating in 1904 were not entirely due to the great increase in ground water development, which marked the immediately preceding years. It is reported by old residents that for a few years prior to the wet winter of 1883–84 lands northwest, north and east of San Bernardino along Base Line to Harlem Springs were quite as dry as in 1904, but that following that and the subsequent wet seasons, the swamp area expanded rapidly to the extreme of the late eighties. The precipitation mass curve for San Diego and San Bernardino (Fig. 3) both indicate that depleted ground water levels existed prior to the season 1883–84, which were fully as low as in 1904. Hence, there is reason to believe that depleted ground water conditions, nearly, if not fully as extreme as those of 1904, have occurred in past years and that the basin was fully recharged by natural agencies alone.

It can be said that there is no evidence to be found in a study of available data regarding ground water levels, artesian pressure, or surface conditions in the San Bernardino basin which shows appreciably the effect of water spreading on the Santa Ana fan, or which can not be explained as the result of natural causes. If the record of ground water fluctuations in the immediate vicinity of the spreading-grounds were available, however, there is no doubt but that they would show very appreciably the effect of water spreading by the unusually shallow depth of the local ground water plane. The area of the whole basin is so great and the movement of ground water so slow that the general effect throughout the basin is still inappreciable and will not be recognizable until a series of dry years occurs.

GROUND WATER FLUCTUATIONS IN OTHER BASINS.

The ground water situation in most of the basins of southern California is so complicated by artificial conditions that investigation for the purpose of comparison with the San Bernardino basin would lead to no conclusions of value. Water spreading has been practiced in San Jacinto Valley, in the lower San Gabriel Valley, along the upper border of the Coastal Plain near Orange and on the alluvial fans of San Antonio and San Dimas creeks. There has been very little attempt to cap flowing wells when not in use in the Coastal Plain artesian area. Furthermore, in most of the southern California ground water basins, except San Bernardino, the artificial draft bears an excessive ratio to the rate of recharge. The San Fernando Valley is the only one which during the last fifteen years has not experienced any of these artificial interferences with natural ground water conditions.

This valley is a typical ground water basin fed largely by percolation from streams draining the San Gabriel Mountains. The formation of the material filling the valley is not favorable for artesian flow but the development of ground water within the valley by pumping is entirely practical. The movement of percolating waters is through the porous gravels toward the lowest depression of the valley where the ground water plane is close to the surface. The natural outlet is by evaporation from the cienaga thus formed, and by the escape of ground water through springs and seepage into the channel of Los Angeles River, which flows out of the valley by way of the ''Narrows'' south of Burbank. This stream is the overflow from a great storage reservoir and as is to be expected is very uniform in flow. The city of Los Angeles depends upon the flow of the river for its municipal supply in conjunction with pumping plants and infiltration galleries along the channel. The city has kept a record of the discharge of the stream exclusive of flood flow since 1898,[1] which is reproduced as Figure 11.

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[1] Mulholland, William, Eleventh Annual Report of the Board of Public Service Commissioners of City of Los Angeles, June 30, 1912.

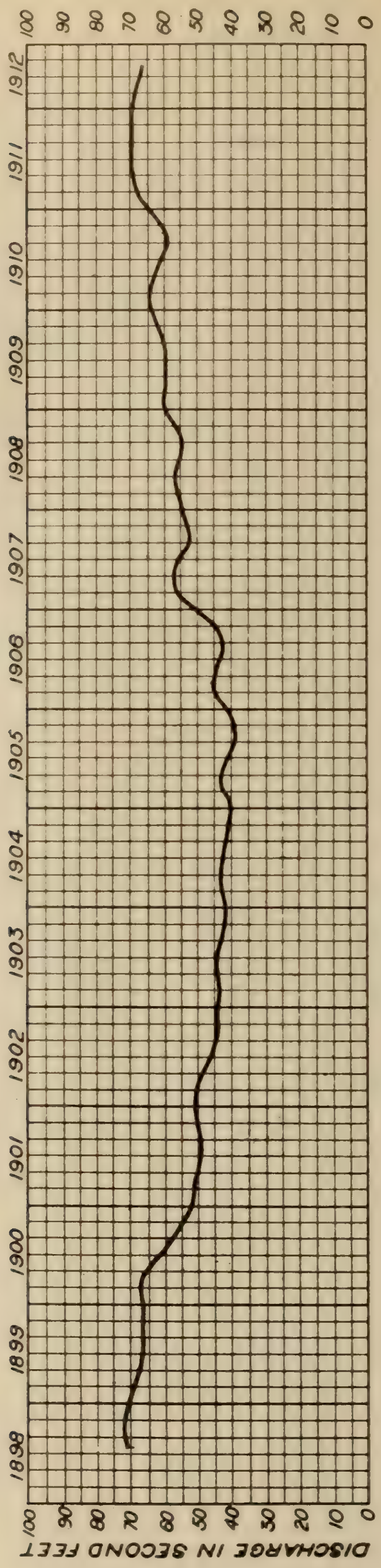

FIGURE-11-DISCHARGE OF LOS ANGELES RIVER EXCLUSIVE OF FLOOD FLOW FROM 1898 TO 1912

There is a striking agreement in the broad fluctuation in flow of Los Angeles River, the fluctuation of ground water level and artesian flow in San Bernardino Valley, and the residual mass curves of precipitation at San Diego and San Bernardino (Fig. 3). The similar curve for Los Angeles, although not presented in this paper, agrees closely with that at San Bernardino as inspection of Fig. 2 will show. A careful comparison of the detail of the mass curves and flow of Los Angeles River show a close similarity, although there is a tendency for the annual precipitation differences to lag one year before appearing in the river flow. This is to be expected, however, because of the slow movement of ground waters from the upper alluvial slopes to the region of outlet. The variation in flow of Los Angeles River, exclusive of flood flow, is controlled solely by ground water fluctuations. It can, therefore, be said that the San Fernando basin, whose ground water fluctuations are the result of natural causes alone, is subject to similar annual rainfall variations with San Bernardino basin and exhibits similar ground water fluctuations. This still further supports the conclusion that water spreading in San Bernardino Valley has filled a minor place in bringing about a recovery in ground water supply.

CONCLUSIONS.

1. The control of surplus flood water of Santa Ana River and Mill Creek by artificially increasing percolation therefrom into the porous gravels of the alluvial slope for the purpose of increasing the ground water supply of San Bernardino Valley is a commercially practical work of great public benefit, provided it is carried on so as to bring about over-year storage regulation.

2. The work as carried on by the Water Conservation Association is accomplishing the storage of approximately 12,000 acre-feet per annum at an annual cost of 15 cents per acre-foot, or 30 cents per acre irrigated therefrom. The immediate loss of flood water from the basin is being reduced from 54 per cent of the surplus flood flow as formerly occurred to 30 per cent.

3. The work of water spreading has not yet been carried on long enough, nor on a large enough scale, to have appreciably affected general ground water conditions by raising the water plane or increasing artesian pressures. The observed recovery in the San Bernardino Valley is primarily the result of a period of several years during which annual precipitation was above normal, following a period of protracted drought.

4. The capping of artesian wells when not in use is an expensive and practical way of conserving ground water supplies, which should be systematically and thoroughly practiced in every ground water basin where the ratio of artificial draft to natural outflow is large.

5. The subterranean storage of surplus flood waters by artificial methods for the purpose of increasing over-year storage, can, and should be, carried on more extensively in the future so as to hold back a greater proportion of the large floods which occur on Santa Ana River and Mill Creek, as well as other streams in the San Bernardino Valley.

Ground Water Resources of Indian Wells Valley California

The State Conservation Commission in co-operation with the United States Geological Survey, GEORGE OTIS SMITH, Director

Prepared under the direction of W. C. MENDENHALL, Geologist in Charge of Underground Water Investigations

By CHARLES H. LEE

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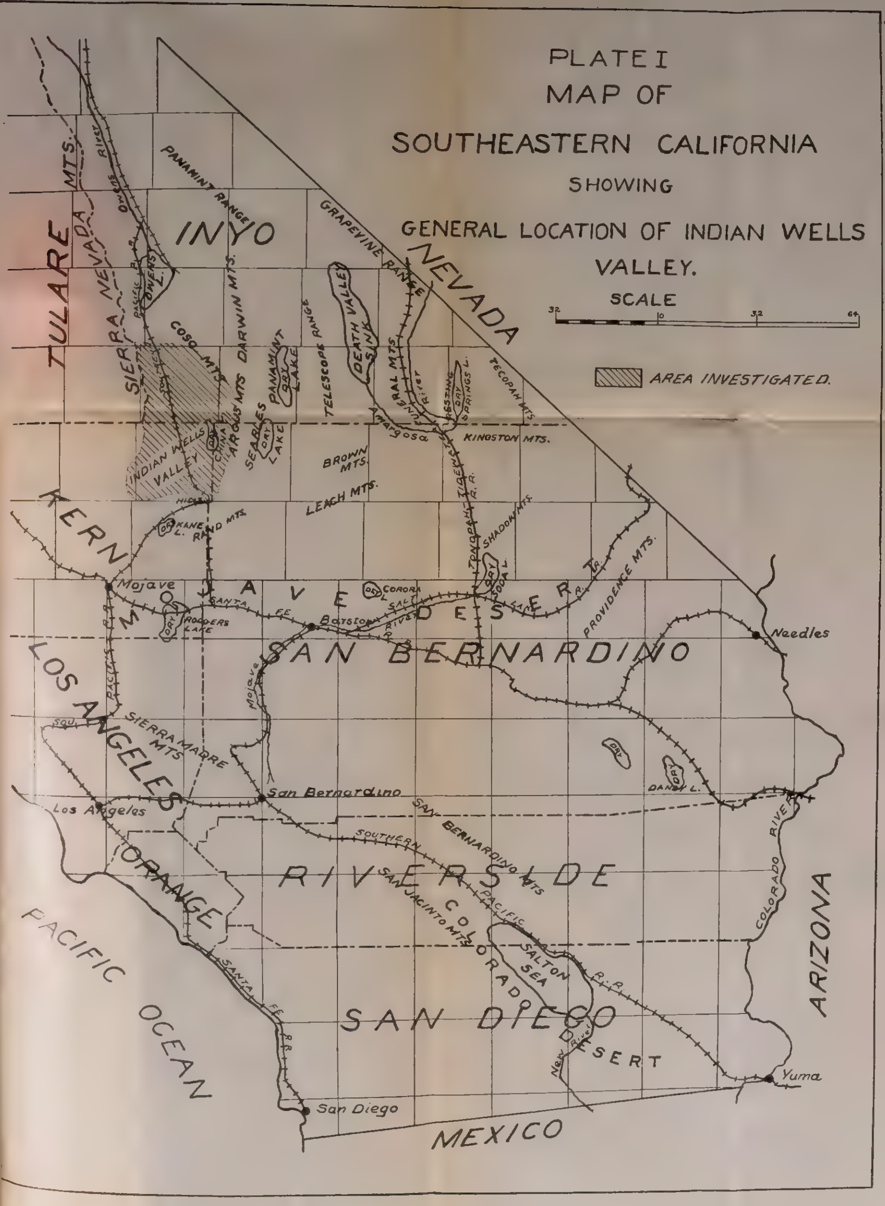
PLATE I
MAP OF SOUTHEASTERN CALIFORNIA SHOWING GENERAL LOCATION OF INDIAN WELLS VALLEY.



GROUND WATER RESOURCES OF INDIAN WELLS VALLEY.

By CHARLES H. LEE.

The existing high price of land in the settled portion of California has led many prospective homeseekers and farmers to take up unappropriated government lands under the provisions of the Desert-Land and Homestead Acts. Most of the unoccupied government land which can be cultivated lies in the desert portions of the State, principally in that great area of southeastern California known as the Mojave and Colorado deserts and the Death Valley region. The extreme aridity of this area makes farming impossible without irrigation. There are only three streams, Owens, Mojave, and Amargosa rivers, originating from precipitation on the tributary mountain slopes, which are of sufficient size to flow from their canyons without sinking immediately into the desert sands. These rivers are available as sources of irrigation supply to very limited portions of the whole desert area and agricultural lands most favorably situated for receiving such waters have long ago passed into private possession. The only available source of supply for most of the desert lands upon which entries have been made in recent years is water which may be drawn from the porous gravels underlying such lands. The supply thus obtainable will prove sufficient to irrigate a small portion of the agricultural lands in each valley, but it is far from being enough to irrigate all such lands. The average settler has no conception of how to estimate the volume of ground water which can be pumped without lowering the water level beyond practical pumping limits. The wonderful success with which ground water is being developed in the valleys of southern California has led many people to believe that the desert ground water supplies are equally large. Many families are building homes on the desert, putting down wells, installing pumps, and preparing land for irrigation with the firm belief that their efforts to reclaim the desert will be crowned with success. The purpose of this paper is to describe the ground water conditions in Indian Wells Valley, a typical desert valley which is being rapidly settled, and show how much water can be developed by pumping and how much land irrigated. The ground water conditions of nearly all the desert valleys of southeastern California are exactly similar, although the amount of water which can be pumped differs according to local conditions in each valley. The discussion and data regarding the ground water supply of this valley will be a valuable guide to those interested in other valleys of the desert region.

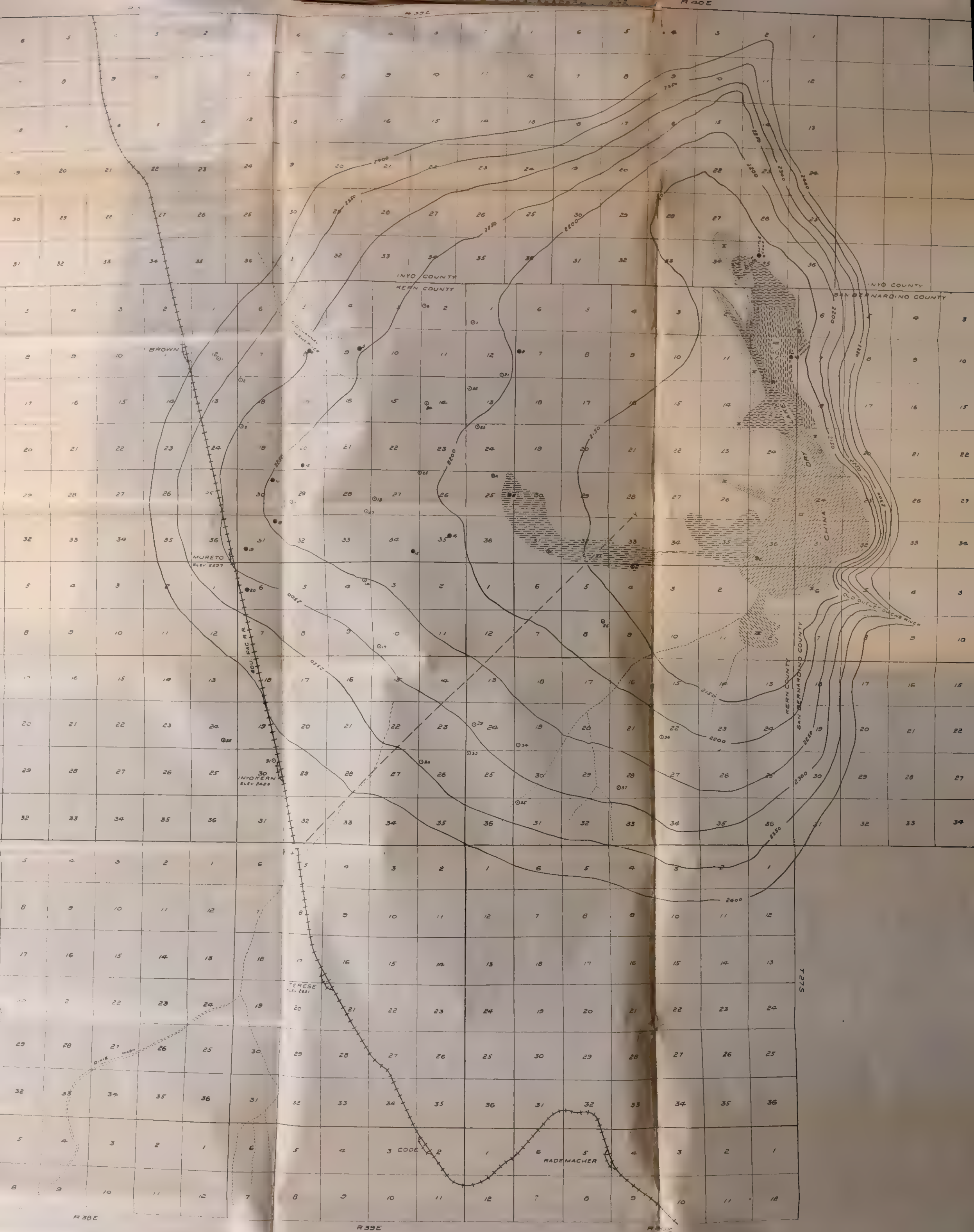
The investigations were carried on by the Conservation Commission of the State of California. The writer was in charge of the planning and execution of the work. Mr. W. H. Spear gathered the well data and made such field surveys as were necessary. The settlers and local well drillers furnished much valuable information and rendered every possible assistance. The field work was performed during September and early October, 1912.

TOPOGRAPHY AND GEOLOGY.

Indian Wells Valley, formerly called Salt Wells, lies mostly in the northeastern corner of Kern County (Plate I). The northern part extends into Inyo County and the eastern border is in San Bernardino County. Townships 25 and 26 south, range 39 east, Mount Diablo meridan, and townships 25 and 26 south, range 40 east, lie wholly within the valley. Considerable portions of townships 25, 26 and 27 south, range 38 east, and township 27 south, range 39 east, are also within its borders.

The old stage route from Mojave to Keeler lies along the western border, as do also the well-known desert springs at Freeman and Indian Wells. The Los Angeles Aqueduct, bringing water from Owens Valley to Los Angeles, has been built through the mountains to the west from Little Lake to Indian Wells. Near the latter point it passes out into the valley and extends southward to Red Rock Summit. The railroad recently constructed by the Southern Pacific Company from Mojave to Owens Valley passes through the Indian Wells Valley and its advent has greatly stimulated settlement. Two small towns have been laid out near the railroad at Inyokern and Brown, and serve as centers for the southern and northern sections of the valley. The area of land within the valley which has been recently filed on at the United States Land Office at Independence, California, is about 130 sections. It comprises the two easterly tiers of sections in townships 25 and 26 south, range 38 east; townships 25 and 26 south, range 39 east; the two westerly tiers of sections in township 25 south, range 40 east; and all except the two easterly tiers of sections in township 26 south, range 40 east. (Plate II.) About one fifth of this area has been cleared of desert brush. Improvements are to be found on about one fourth of the filings and consist of homestead cabins and outbuildings, fencing, drilled wells and, in a few instances, power pumps. There have been drilled, altogether, more than one hundred "stovepipe" casing wells, varying from 100 to 750 feet in depth.

The length of the valley-floor from north to south is about 15 miles and in its greatest width 16 miles. The area of the valley floor, not including the high mesa extending to the southeast is about 213 square miles. Of this area possibly 130 square miles, or 83,000 acres, could be cultivated and crops raised by irrigation if sufficient water were available. The general slope of the central and northern portion is to the east and southeast toward the low depression known as China Dry Lake. The southern part of the valley slopes northeast toward this lakebed. Elevations vary from 3,000 feet above sea level along the base of the Sierra Nevada Mountains, on the west to 2,120 feet in the

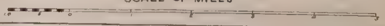


MAP OF INDIAN WELLS VALLEY CALIFORNIA

SHOWING

CHINA DRY LAKE, APPROXIMATE SURFACE CONTOURS AND LOCATION OF WELLS

SCALE OF MILES



LEGEND

⊙ DEEP CASING WELLS FOR IRRIGATION SUPPLY

● SHALLOW DOMESTIC WELLS

◉ AUGER TEST HOLES

2200 ~~~ CONTOUR

NOTE - SHADED AREAS I AND II COMPRISE LAKE BOTTOM
SHADED AREAS III TO VI INCLUSIVE ARE MOIST LANDS SURROUNDING

lowest depression of the dry lake bottom. The slope of the ground is steepest near the mountains and decreases toward the lake bottom. The drop per mile near Brown is slightly more than 50 feet. A few miles east of Brown it is 20 feet per mile and continues thus nearly to the lake bottom. At Inyokern the drop is about 40 feet per mile and decreases to about 30 feet per mile at a point four miles from the lake bottom. Beyond this point to and across the lake bottom the surface is almost level. The lake bottom varies from 2,140 feet at the upper end to 2,120 at the south.

PLATE III.—Old shore line of China Lake near outlet.

The most interesting feature of the valley topography is this dry lake

(Plate II). It occupies the lowest depression of the valley towar which all drainage lines are pointed and is a typical playa lake of th desert, known in different localities as "borax lakes," "salt lakes," o "alkali marshes." (Plate IV A.) It is the evaporating pan fo drainage from the whole valley and its tributary mountains. The lak bottom is a flat expanse of silt and clay. Over the north arm of th lake this is wet and so soft that cattle bog down in it, even in midsumme The southern portion dries out during the summer to a depth of 3 or inches, forming a hard crust beneath which the clay is very moist. I the winter the whole lake bottom is soft and boggy. Surplus floo water collects in it during wet winters but soon evaporates. Whe looking at the lake bottom from a distance, mirage always gives th impression of a great expanse of water, particularly in midsumme In certain portions of the lake bottom and all around the rim an alka crust is continually forming (Plate III). This sometimes has a thicknes of half an inch. The growth of the crystals causes lateral pressure i the crust and as a result it heaves up in ridges and mounds, an eventually cracks and breaks. Walking on it is similar to walking o a thin frozen snow crust except that the moist soil beneath gives bette support than soft snow. The crust contains various soluble alkali an saline salts and a small amount of borax. When the alkali is not to strong the moist soils around the rim support a sparse growth of sa grass. The source of the soluble salts forming this crust is to be foun in the water which collects in the lake depression from all parts o the valley and precipitates its dissolved mineral content in the proces of evaporation. There being no outlet from the basin, these salt accumulate indefinitely.

The valley is completely surrounded by mountains. On the wes it is bordered by the Sierra Nevada Mountains, whose crest reache an elevation of nearly 8,000 feet. The width of the slope tributar to the valley is from three to six miles and is cut by deep canyons. Th formation is granite. To the north is an extension of the Cos Mountains and the Argus Range, both of which are parallel with th Sierra Nevada. Between the Coso Mountains and the latter is a narro defile known as Little Lake Canyon which opens out into Rose Spring Valley. The surface drainage of this region as far north as Haiwe is tributary to Indian Wells Valley. The Rose Springs Valley is reall an extension of Owens Valley and in former geologic times the Owen Lake overflowed to the south and found an outlet through the valley an Little Lake Canyon to Indian Wells Valley. The old channel of th river appears at several places near Little Lake and is remarkably we preserved in the lava rock. There are two small basins between th Coso and Argus ranges tributary to Indian Wells Valley. The uppe one, known as Coso Basin, contains the Coso Hot Springs, which ar residuals of the former volcanic activity of the region. The lower on is really an arm of Indian Wells Valley which has been cut off by a lav flow from the northwest. There is a dry lake bottom in its lowes depression. The Argus Range presents a steep slope toward thi lower basin and the Indian Wells Valley from the east. It reaches elevations between 6,000 and 7,000 feet and is cut with deep canyons. The Coso Mountains are much lower and less steep. Both the ranges show the results of volcanic activity in the form of cinder cones and lava flows. The core of both ranges is granite overlaid with highly metamorphosed slates and schists. The Argus Range shrinks to a low ridge of granite hills opposite the center of Indian Wells Valley. The China Lake of former geologic times was fed by the overflow from Owens Lake and found its outlet to Searles Lake through this ridge by way of a narrow gorge cut into the granite. Although partially filled with sand, the gorge is still remarkably well preserved. The level of the outlet is about 40 feet above the present lake bottom. The old shore line of China Lake is as well preserved as the gorge and can be traced along the base of the hills for several miles (Plate III). The Rademacher Hills close the valley on the south. This is a short range of about 20 miles in length, reaching moderate elevations. Between the north end of the range and the Sierra Nevada is a high mesa which at the west falls off rapidly into the Red Rock Canyon.

The total area tributary to China Dry Lake is about 1,050 square miles (Table 1). Of this, 770 square miles is in Indian Wells Valley and the tributary mountain slopes, 200 square miles in Rose Springs Valley, and 80 square miles in the Coso Basin. The area of the mountain slopes tributary to Indian Wells Valley is 360 square miles and the valley floor and mesa 410 square miles.

The present floor of the Indian Wells Valley is formed by the alluvial material which has been carried from the mountain canyons by flowing streams and deposited in the open valley. The depth of this filling varies in different parts of the valley, depending upon the elevation of the impervious floor. The mesa formation at the southwest end of the valley dips to the northeast and is reported by well drillers to lie beneath the modern gravels. In a well 3½ miles northeast of Inyokern it is found at a depth of 300 feet and described as a very tough impenetrable blue clay. In another well six miles northeast of Inyokern the same formation was encountered at 230 feet below the surface. At Terese, 4½ miles southwest of Inyokern on the railroad, a prospect oil well was drilled which encountered this clay or shale at a moderate depth and is reported not to have passed through it at a depth of 1,935 feet. The wells in other parts of the valley do not encounter any underlying impervious formation at depths of from 200 to 300 feet. It is probable that the valley-fill nowhere exceeds 300 feet in depth, and over most of its area does not exceed 250 feet.

The character of this alluvial filling as shown by well logs is typical of similar valleys throughout southern California. There is from 50 to 150 feet of coarse gravel overlaid by finer gravel, sand and top soil. Beneath this gravel is impervious clay from 10 to 50 feet thick. Below this to the impervious floor of the basin are alternating layers of coarse gravel and clay. In the northern portion of the valley considerable water worn lava rock is brought up during drilling operations indicating the extent to which Owens River contributed to the work of transporting and depositing material. About two miles northeast of Brown there still remains a deep channel lined with large lava boulders which appears to have been the channel of Owens River before it ceased to flow through Indian Wells Valley. The most active streams were those from the Sierra Nevada Mountains as indicated by the great accumulation of alluvial débris along the base of this range.

In conclusion it may be said that the topographic and geologic conditions of the Indian Wells Valley correspond with those of the recognized ground water basins of California.[1]

PRECIPITATION AND STREAM FLOW.

There are no precipitation records available within the Indian Wells Valley or the tributary drainage area. The nearest records applicable to the region have been made at Mojave, Kernville, Keeler and Barstow (Tables 2 to 5). These indicate a depth of annual precipitation over the valley portions of this region of about 4 inches, which characterizes the climate as one of extreme aridity. The precipitation is greater in the Sierra Nevada Mountains, however, as is shown at the higher levels by the existence of pine trees, which require from 20 to 25 inches per annum to make any growth or even sustain life. The winter precipitation in the mountains is often in the form of snow.

The relation of elevation and precipitation along the east slope of the Sierra Nevada has been made the subject of careful study in recent years by the engineering staff of the Los Angeles Aqueduct in coöperation with the U. S. Geological Survey.[2] The results of these studies are presented on Diagram 1. They show that from the summit of the mountains eastward to the base there is a uniform decrease of precipitation with decrease in elevation. After leaving the mountains and passing out on to the plains, however, the decrease of precipitation with elevation becomes progressively less. The observed rate of decrease of precipitation with decrease elevation on the slope above Reno, Nevada, called the Central Pacific section, is 1.74 inches per 100 feet; twelve miles north of Independence, California, in the Taboose section, 0.46 inches per 100 feet; the same in Oak section, near Independence; and in Bairs section, ten miles south of Independence, 0.34 inches per 100 feet. Judging from the local vegetation and the precipitation records at Mojave, Barstow and Keeler, the annual precipitation at Brown is about 4 inches; at the base of the Sierra Nevada west of Brown 6 inches; and at the summit 22.5 inches. With this data the dotted line on Diagram 1 has been constructed showing the relation of elevation and precipitation in the Brown section. There is a somewhat similar relation for the west slope of the Argus Range, but the precipitation at the summit probably does not exceed 15 inches per annum.

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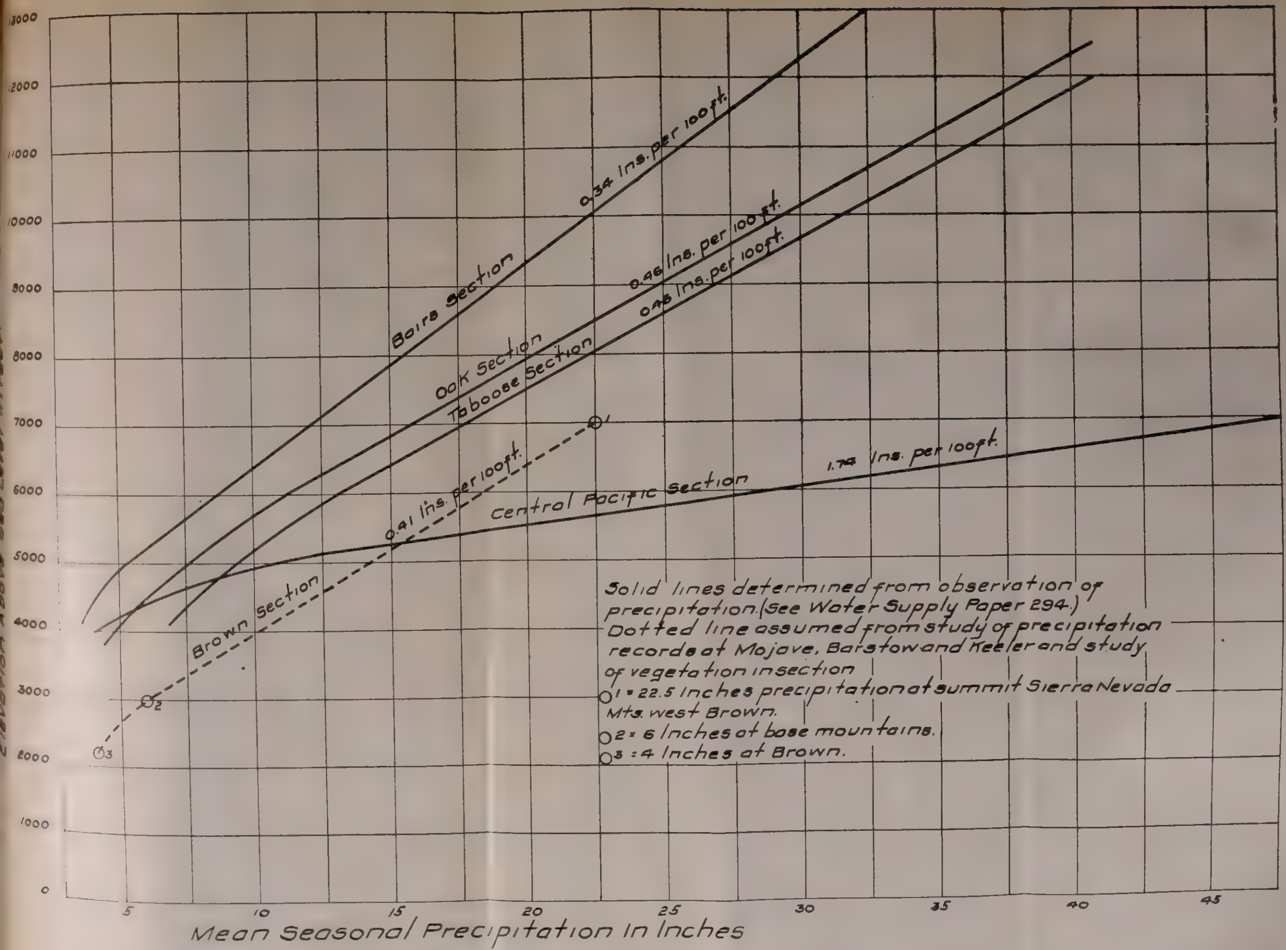
[1] Mendenhall, W. C.; Water Supply Papers 137, 138, 139, 142, 225, U. S. Geological Survey.

[2] Lee, Charles H., Ground Water Resources of a Portion of Owens Valley, California; Water Supply Paper 294, U. S. Geological Survey 1912.



Solid lines determined from observation of precipitation. (See Water Supply Paper 294.)
Dotted line assumed from study of precipitation records at Mojave, Barstow and Keeler and study of vegetation in section

○1 = 22.5 Inches precipitation at summit Sierra Nevada Mts. west Brown.
○2 = 6 Inches at base mountains.
○3 = 4 Inches at Brown.

DIAGRAM-1- RELATION ELEVATION AND PRECIPITATION ON EAST SLOPE SIERRA NEVADA MTS

The monthly variation in precipitation at Mojave is typical of California west of the Sierra Nevada Mountains and in the valley of southern California. There is a rainy season of about five months—November to March, inclusive—followed by a dry period of seven months. Summer storms of unusual severity occur in this region, however, which are peculiarly typical of the desert. They are called cloud-bursts and seldom last more than an hour. A large volume of water falls which, when collected into a narrow canyon, advances in a great wave carrying everything before it. These streams will extend far out into the valleys, depositing their loads of gravel, sand and silt as they advance. These storms are prevalent in July and August; are local in extent and usually gather about the higher peaks of the Sierra Nevada and Argus Range.

The annual variations in precipitation are characterized by great extremes. This is shown strikingly on Diagram 2, which represents the seasonal and three year progressive mean seasonal precipitation at Mojave, Cal. The three year progressive means have been joined by a broken line which shows the annual fluctuations smoothed out so that they are more easily followed by the eye. The mean seasonal precipitation is 5.1 inches, the least recorded during a season a trace, and the greatest 12.7 inches. There have been periods of eight consecutive years when the progressive mean was less than average, and eight progressive years normal or above. The average for three consecutive years has been below two inches per year twice in the last thirty-five years. The effect of such extremes upon the meager water supply of the region is to make it very unreliable.

Run-off from precipitation is almost unknown beyond the mouths of the mountain canyons. The cloud-bursts are the only storms providing sufficient rainfall to form a stream large enough to flow out into the valleys. The ordinary winter storms and slowly melting snows feed small streams in each canyon which, as soon as they reach the open valley, sink beneath the porous sands and gravels and are lost to view. The canyons most productive of run-off are along the slopes of the Sierra Nevada, such as Five Mile, Nine Mile, Sand and Grapevine. The run-off from these four drainage basins, measured at the mouths of canyons, probably would not exceed 100 acre-feet per square mile per year. The canyons of the Argus Range are less productive of run-off than those of the Sierra. The total run-off from the 360 square miles of mountain drainage directly tributary to Indian Wells Valley, measured at mouth of canyons, probably would not exceed 37 second-feet continuous flow, or 27,000 acre-feet per annum.

There is no surface run-off reaching the valley from Rose Springs Valley or Coso Basin. The streams entering these areas are lost into the sands soon after leaving their canyons. Their mountain drainage areas are no more productive than in Indian Wells Valley. It is thus apparent that the surface water supply of the Indian Wells Valley region which is derived from run-off is negligible outside of the mountain canyons. The storage of surface water within the canyons for use in irrigation of valley lands is entirely impractical, first, because of the small volume of water available in individual canyons and the excessive cost of constructing storage works; second, because of the excessive evaporation losses from a water surface in this desert region; third, because of the ideal storage reservoir provided by nature in the gravels of the open valley.

THE GROUND WATER RESERVOIR.

The great body of porous gravel lying upon the impervious rock floor of the Indian Wells Valley and surrounded on all sides by rock mountain walls, forms an underground reservoir in which large volumes of water can be stored. The basin in which this gravel has accumulated is impervious and there is no subterranean escape for water when it once enters the gravels. It is held as effectively as if stored in a surface lake or reservoir. The void space in ordinary sand and gravel, as found in nature, is between 20 and 35 per cent of the total volume. Hence in each cubic yard of saturated gravel there is from 40 to 70 gallons of water, or in an acre of saturated gravel one foot deep there is from 65,000 to 114,000 gallons. The depth of the gravels in the valley is possibly 250 feet, and their surface area exceeds 150,000 acres. The large storage capacity of the reservoir is thus apparent.

THE GROUND WATER SUPPLY.

The sources of supply of this reservoir are percolation from the streams which flow from the mountain canyons; percolation from direct precipitation upon the gravel; and underflow from Rose Springs Valley and the Coso Basin. Percolation from direct precipitation is too small to have any appreciable effect in replenishing the ground water supply. The underflow is also very small in amount. The movement of water in the soil seldom exceeds two or three miles per year and ordinarily is much less than this. Most of the underflow from Rose Spring Valley appears in the large spring and meadow at Little Lake and is lost by evaporation. The idea of there being a great stream of underground water from the Owens Valley flowing through Haiwee Meadows, Rose Springs Valley, and on into Indian Wells Valley, is entirely without foundation. The only course that such a stream could take would be through the narrow canyon below Haiwee Meadows where a dam has recently been built by the Los Angeles Aqueduct. This dam rests on bedrock and during the construction of the core well the entire underflow through the canyon, amounting to about 35 miner's inches, was pumped from the trench so that men could work. The source of this water is percolation from the streams originating in small canyons of the Sierra immediately west of the dam and not from Owens Valley. The entire water supply of that valley can be accounted for by evaporation losses from damp meadow and alkali lands and from the surface of Owens Lake. Most of the underflow from the Coso Basin is lost by evaporation from the dry

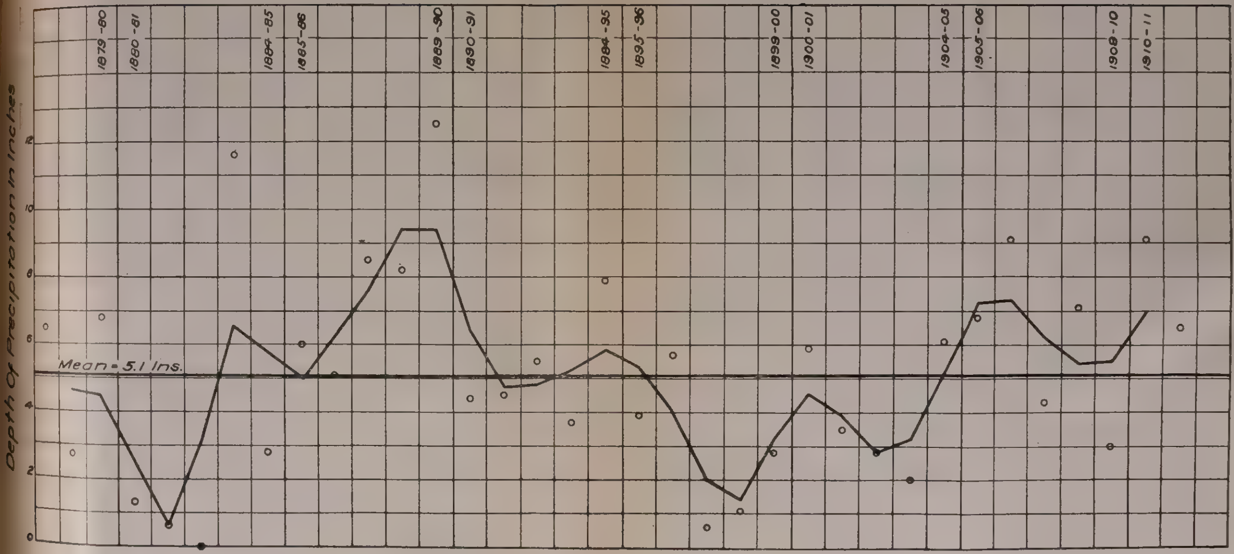


DIAGRAM-2-SEASONAL AND THREE YEAR PROGRESSIVE MEAN SEASONAL PRECIPITATION AT MOJAVE CAL.

lake basin in the lowest depression of the second valley. Hence the supply of the ground water reservoir in Indian Wells Valley is derived almost entirely from the tributary mountain canyons, from the little streams which lose themselves in the gravels as soon as they leave the mountains.

As soon as this water enters the porous gravels it percolates downward to the surface of the broad sheet of water underlying the whole valley. This water surface is not level as in a lake, but has a slope towards the east corresponding with the surface of the ground, although not as steep. The slope adjusts itself until the resistance of the gravel to the advance of the water is just balanced by the hydrostatic pressure. The water surface approaches closer and closer to the ground surface in advancing eastward across the valley. Near and within the dry lake-bed the water surface is within eight feet of the ground surface and the water is drawn up by capillary action of the soil and is dissipated into the atmosphere by evaporation. The percolation from the canyon water moves eastward down this slope toward the dry lake and finds an outlet by evaporation from the damp soils around and in the dry lake. The evaporating area is characterized by an alkali crust on the surface of the ground with damp soil beneath (Plate III). The alkali is that which the water had in solution and had left behind when evaporating. It accumulates in the soil from year to year. Although the water itself may be quite pure, the amount of alkali which is deposited during thousands of years is large and as the rainfall is insufficient to carry it away it continues to accumulate.

The average annual inflow and outflow from any reservoir, whether surface or subterranean, must be equal. Otherwise the reservoir would fill to overflowing or dry up entirely. The Indian Wells reservoir cannot overflow until China Lake fills with water to the level of the old outlet to Searles Lake, which is about 40 feet above the lake-bed, nor can it dry up as long as the evaporating area persists. The present conditions and the boundary of the evaporating area have not changed in many years. The inflow and the outflow from the reservoir must, therefore, be equal, considered as annual averages. Measurement of inflow and outflow for the closed ground water reservoir in the vicinity of Independence in Owens Valley has shown them to be equal for that reservoir.[1] Hence the rate of recharge of the gravels of Indian Wells Valley can be obtained by determining the loss by evaporation from the moist lands around within the China Dry Lake. This has been done as described elsewhere in this paper.

The effect of monthly and annual variation in the run-off from the mountain canyons is shown by the rise and fall of ground water levels throughout the basin outside of the evaporating area. Each winter the increased run-off builds up the ground water surface near the mountains and a wave of water starts down the slope. As it advances it flattens out and by the time it has reached the lower valley it is hardly perceptible. It is to be expected, therefore, that wells situated near the mountains will experience an annual rise and fall of considerable amount, the highest level occurring in late winter and the lowest in late fall. Out in the valley in the vicinity of Brown the fluctuation will not be so great and the highest level will be delayed several months, possibly until midsummer. Several miles east of Brown these fluctuations will hardly be noticed at all. The annual fluctuations are of longer duration. A series of wet years will build up the water surface from one year to another until it is considerably above average, while the reverse will occur during dry years. Examination of Diagram 2 shows that periods of eight years drought have occurred in the past when the rainfall was considerably below normal. The effect of such a drought upon ground water levels in the porous gravels of the Indian Wells Valley would be to materially lower them. During the last seven years the average rainfall has been above normal and at the present time the general ground water level is above the normal.

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[1] Lee, Charles H., Ground Water Resources of a Portion of Owens Valley, California; Water Supply Paper 294, U. S. Geological Survey. 1912.

The artificial development of ground water from a reservoir of the type being described is made by sinking wells into the porous material and pumping water from them. The immediate effect is to drain the gravels in the vicinity, particularly on the side toward which the water surface slopes. As long as no more water is pumped than is flowing down the slope within the radius from which the pump draws there will be no permanent lowering of the water plane. If, however, more water is pumped than is supplied the water plane will fall and eventually, if pumping is continued at the same rate, will recede below the level from which the pump draws. The pump might then be lowered, but the only permanent remedy is to reduce the amount of water pumped. Considering the valley as a whole, if more water is pumped from it than is supplied by percolation, the general water plane will fall throughout the valley and the shallow pumps will soon be unable to reach the water plane. When enough pumps have been eliminated to reduce the total amount pumped to the amount supplied by percolation, the water surface will cease falling. If the shallow pumps are lowered and pumping resumed the water plane will again recede. There is no method by which more water can be drawn from a ground water reservoir than is supplied. The effective capacity of a ground water reservoir therefore is not its storage capacity, but is the rate at which the gravels are recharged each year by percolation from the mountain canyons. The amount pumped cannot exceed this if the supply is to remain permanent. It would be impossible to measure the amount of water percolating into the gravels, but it is feasible to measure the evaporation losses. The practical measure of the maximum amount which can be annually pumped from Indian Wells Valley is therefore the annual amount of evaporation from the moist soils in the lowest depression of the valley.

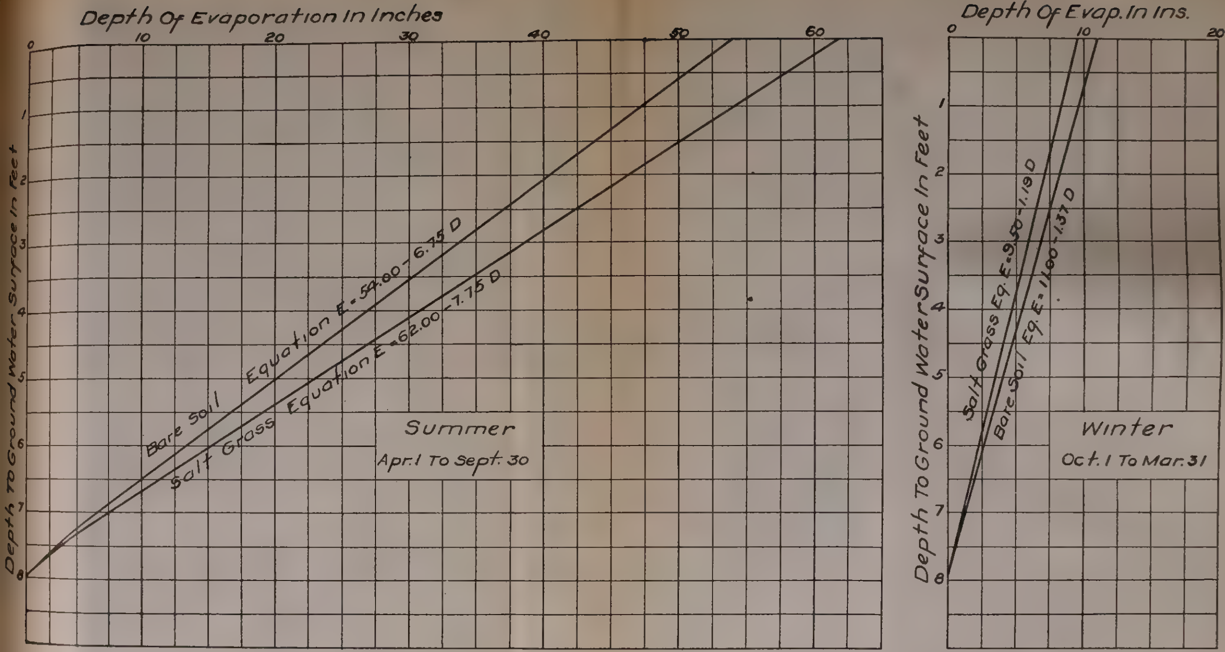

DIAGRAM-3-INDIAN WELLS VALLEY SOIL EVAPORATION CURVES

EVAPORATION LOSSES.

The subject of evaporation losses from damp soils has never been fully investigated. The most complete set of experiments tending to throw light on the general problem has been recently made in the Owens Valley, California, by the Los Angeles Aqueduct in coöperation with the United States Geological Survey.[1] The conditions under which these experiments were made are almost identical with conditions in Indian Wells Valley, both as to climatic conditions and soil characteristics. The ideas and relations there developed are the basis for determination of soil evaporation losses in Indian Wells Valley.

The rate of evaporation from soil varies proportionally with the depth to the ground water surface. When the ground water is at the surface of the ground there is a definite relation between the rate of soil evaporation and direct evaporation from a free water surface. When the ground water surface reaches a depth of from five to nine feet, depending upon the character of the soil, the evaporation loss is zero. Vegetation such as salt grass will cause a greater rate of soil evaporation during the summer months than from a bare soil. In Indian Wells Valley the depth of annual evaporation from free water surface is about 75 inches, 28 per cent of which occurs between October 1st and March 31st, and 72 per cent during the summer months. The depth at which zero soil evaporation occurs is about 8 feet. From this data and the most recent results obtainable from the Owens Valley experiments regarding the relation of soil evaporation at shallow depths and free water evaporation, were constructed a set of diagrams applicable to Indian Wells Valley (Diagram 3). One set is to be used during the summer months, April 1st to September 30th, and the other during the winter. One pair applies to bare soil and the other to soil with salt or marsh grass growing upon it.

The computation of total evaporation losses from the ground water of the valley requires a knowledge of the areas of bare soil and salt grass lands from which evaporation occurs together with a segregation as to the depth of the ground water surface. This was gained by personal examination of the lower portion of the valley, testing the depth of ground water in various places with a soil auger and making a survey of the outer boundary and subdivision lines of the evaporating area. The data thus obtained is presented in Tables 6 and 7, and on Plate II. The total evaporating area is 14.7 square miles, of which 7.2 square miles is in the lake bottom and the remaining 7.5 square miles borders the lake on various sides. The moist lands east of the lake bed and the adjacent portions of the lake bed are fed by percolating water from the Argus Range, the remaining areas from the Sierra Nevada.

The depth and volume from annual evaporation from each subdivision is presented in Table 8. The ground water surface in such an evaporating area has a regular annual fluctuation. It is at its highest level about March 15th, gradually recedes during the summer, reaching its lowest level about September 15th, after which it commences to rise. The amount of fluctuation under similar conditions in Owens Valley was about 3 feet between highest and lowest level. The observations of water level were made in Indian Wells between September 15th and 30th, the period of lowest level. Hence the average summer and winter depth to ground water is 1.5 feet less than the observed depth, thus making it possible to fill out the column of average depths in Table 8. The depths of evaporation for summer and winter are taken from Diagram 3. The grand total evaporation loss is 31,630 acre-feet per year or a continuous flow of 44 second feet.

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[1] Lee, Charles H., Ground Water Resources of a Portion of Owens Valley, California; Water Supply Paper 294, U. S. Geological Survey, 1912.

AVAILABLE PUMPING SUPPLY.

It does not follow, however, that this amount of water can be annually pumped from the basin for use on the agricultural lands. About 30 per cent of it is derived from percolation from the Argus Range. The lands between these mountains and the lake are not adapted to agriculture and the cost of developing water east and northeast of the lake and delivering it west of the lake is too great to make it possible from an economic standpoint. There is about 22,000 acre feet of water derived from the Sierra Nevada Mountains and the Rademacher Hills which percolates beneath the agricultural land toward the lake bottom. It is a practical impossibility to intercept all of this subterranean flow because of its diffusion over such a wide area. It is possible that by exercising judgment in locating wells and pumping plants 50 per cent of this volume, or 11,000 acre-feet, could be annually developed for use.

The soils of the valley vary from open sandy loams of the upper slopes to the very fine grained sediment soils of the lower valley which resemble deposits of water-transported volcanic ash. These latter soils are entirely devoid of humus and are almost impenetrable to water. Generally speaking the sandy soils merge into the fine silt between the 2,250 and 2,200 foot contours (Plate II).

The amount of water required to raise crops in the valley will vary from two to eight acre-feet per acre per year, depending upon the crop and the character of the soil. The sandy soil will take almost as much water as is applied to it, while the close soils of the lower valley will not take much more than two to four acre-feet per acre per annum. Fruit trees do not require as much water as field crops. It can be broadly said that the sandy soils will require from five to eight acre-feet per acre per annum and the close soils of the lower valley two to four. The sandy soils will probably require more than this during the first few years of irrigation. It is, therefore, apparent that with the exercise of good engineering judgment in locating wells and farm lands enough water can be developed in Indian Wells Valley to irrigate between 1,500 and 2,500 acres. The area of land which can be considered as suitable for agriculture if water were available is about 90,000 acres.

AREA WHICH CAN BE IRRIGATED.

If it is attempted to cultivate permanently 2,000 acres of land in Indian Wells Valley, it should be done in somewhat the following manner: In the first place the unit area of cultivation should not exceed that which can be irrigated from one well continuously or several wells used one at a time. Such an area should not exceed 40 acres. The wells should be so located on each farm unit that they are not closer than 1½ miles to a well on any other farm unit. The best location for these farms as regards water-supply is between the 2,175 and 2,400 foot contours as shown on Plate II. The number of regularly pumped wells in the valley should not exceed fifty and the amount pumped from each well should not exceed 200 acre-feet per acre per year, or 55 miner's inches twelve hours a day for six months.

TABLE 1.

Classification of Drainage Areas Tributary to China Dry Lake, Indian Wells Valley, California.

Basin.	Approximate area in square miles.		
	Mountain slopes.	Mesa and valley floor.	Total.
Indians Wells Valley	360	410	770
Rose Springs Valley	120	80	200
Coso	60	20	80
Totals	540	510	1,050

TABLE 2.

Precipitation in inches at Mojave, California.

Elevation 2751.

Season.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
1876-77	----------	----------	----------	----------	----------	.0	0.85	.0	0.01	.0	.0	.0	----------
1877-78	.0	.0	.0	.0	.0	2.38	1.22	1.74	0.30	0.76	.0	0.02	6.42
1878-79	.0	0.10	0.29	.0	0.32	1.07	0.62	0.05	.0	0.22	.0	.0	2.67
1879-80	0	.0	.0	.0	0.42	4.16	0.40	0.50	0.71	0.60	.0	.0	6.79
1880-81	.0	.0	.0	.0	.0	1.03	.0	.0	0.06	0.18	.0	.0	1.27
1881-82	.0	.0	.0	trace	trace	trace	0.05	0.58	.0	.0	.0	.0	0.63
1882-83	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	trace	.0	trace
1883-84	.0	.0	.0	0.10	.0	0.25	1.77	5.69	2.17	0.61	.0	1.05	11.64
1884-85	.0	0.10	.0	0.13	(0.31)	(1.59)	.0	0.06	.0	0.61	0.14	.0	(2.84)
1885-86	0.71	.0	.0	.0	1.25	1.16	1.49	trace	1.22	0.14	.0	trace	5.97
1886-87	trace	.0	.0	trace	0.76	0.08	trace	4.09	.0	0.14	.0	.0	5.07
1887-88	.0	.0	.0	0.95	0.56	1.06	2.62	1.56	1.75	.0	.0	.0	8.50
1888-89	.0	.0	.0	.0	2.18	2.23	0.35	0.03	3.43	.0	trace	.0	8.22
1889-90	.0	0.81	0.27	2.21	0.45	7.30	0.85	0.58	.0	.0	.0	.0	12.47
1890-91	.0	.0	0.70	.0	0.15	0.67	.0	2.33	0.19	0.36	.0	.0	4.40
1891-92	trace	.0	0.33	0.03	.0	0.76	1.00	0.47	1.61	.0	0.26	.0	4.46
1892-93	.0	.0	.0	.0	0.27	0.56	2.73	0.26	1.53	0.13	.0	.0	5.48
1893-94	1.04	.0	.0	0.29	0.15	0.88	0.48	0.54	0.24	trace	0.03	.0	3.65
1894-95	.0	.0	.0	.0	trace	3.68	2.66	0.53	1.01	.0	.0	.0	7.88
1895-96	.0	.0	.0	0.80	0.14	.0	1.31	.0	1.45	.0	.0	0.22	3.92
1896-97	0.12	.0	.0	0.70	0.17	0.82	1.86	1.17	0.82	.0	.0	.0	5.66
1897-98	.0	0	.0	.0	.0	.0	0.60	trace	.0	.0	.0	.0	0.60
1898-99	.0	.0	.0	.0	.0	0.29	0.37	.0	0.48	.0	trace	.0	1.14
1899-00	.0	.0	.0	0.68	0.88	0.31	0.31	.0	trace	0.21	0.42	.0	2.81
1900-01	.0	.0	0.01	.0	1.66	.0	0.73	3.18	.0	.0	0.28	.0	5.85
1901-02	.0	1.75	.0	0.52	0.07	.0	0.17	0.86	0.14	trace	.0	.0	3.51
1902-03	.0	.0	.0	trace	0.84	0.21	0.02	0.50	0.35	1.00	.0	.0	2.92
1903-04	.0	.0	trace	.0	.0	.0	.0	0.76	1.20	.0	.0	.0	1.96
1904-05	.0	0.30	.0	.0	.0	0.60	0.70	1.60	2.90	.0	trace	.0	6.10
1905-06	.0	.0	.0	.0	1.25	.0	1.00	1.00	2.00	1.50	trace	.0	6.75

2.25	3.07	0.50	2.62	.0	.0	.0	0.09	1906-07	.0	.0	.0	.0	0.65
0.50	1.25	(0.84)	.0	0.49	trace	.0	(4.28)	1907-08	.0	.0	.0	1.20	.0
0.62	3.14	2.50	.0	.0	.0	.0	7.13	1908-09	trace	.0	0.87	.0	trace
2.10	.0	.0	.0	.0	.0	.0	2.97	1909-10	.0	0.12	.0	.0	0.75
0.10	3.27	3.10	1.75	0.50	.0	.0	9.12	1910-11	.0	.0	.0	0.40	.0
.0	.0	.0	5.00	0.50	0.50	(.0)	6.50	1911-12	.0	.0	0.50	.0	.0
1.05	.97	1.00	.94	.23	.05	.04	5.10	35-year mean	.05	.09	.08	.23	.38

TABLE 3.

Precipitation in inches at Barstow, California.

Elevation 2105.

Season.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
1888-89	----------	----------	----------	----------	----------	----------	0.14	0.04	0.93	.0	0.12	.0	----------
1889-90	.0	0.13	0.07	0.23	0.70	3.87	0.36	0.15	trace	0.07	.0	.0	5.58
1890-91	.0	0.15	0.59	.0	0.05	0.52	.0	2.47	trace	0.05	trace	.0	3.83
1891-92	trace	0.06	0.08	.0	trace	0.25	0.22	0.67	----------	----------	----------	----------	----------
1892-93	----------	----------	----------	----------	----------	----------	0.11	0.27	0.77	0.06	trace	.0	----------
1893-94	1.10	.0	.0	0.22	trace	0.72	0.02	0.21	0.06	.0	0.22	trace	2.55
1894-95	trace	.0	.0	.0	.0	0.92	1.06	.0	0.20	.0	.0	.0	2.18
1895-96	.0	.0	.0	0.33	trace	.0	0.16	.0	0.08	.0	.0	.0	0.57
1896-97	0.07	0.87	.0	1.55	0.25	0.30	2.15	0.65	0.11	.0	.0	trace	5.95
1897	.0	0.18	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
1903	----------	----------	----------	----------	----------	----------	0.50	0.55	1.00	0.10	.0	trace	----------
1903-04	.0	trace	0.50	.0	.0	.0	trace	0.30	0.10	.0	.0	.0	0.90
1904-05	0.40	trace	.0	.0	.0	trace	1.10	0.50	3.50	0.40	.0	.0	5.90
1905-06	.0	trace	.0	.0	0.90	trace	0.65	trace	.0	0.25	.0	.0	1.80
1906-07	----------	----------	----------	----------	2.00	trace	----------	----------	----------	----------	----------	----------	----------
1907-08	.0	.0	trace	3.39	0.02	1.13	1.11	0.76	0.35	0.09	0.18	.0	7.03
1908-09	trace	0.59	0.66	0.42	.0	0.10	1.29	0.94	0.77	.0	trace	0.04	4.81
1909-10	trace	0.50	0.10	0.10	0.31	1.83	1.02	.0	0.30	.0	.0	.0	4.16
1910-11	0.32	.0	.0	0.35	0.03	0.04	0.61	0.77	0.28	0.48	0.02	.0	2.90
1911-12	0.36	.0	1.50	0.08	.0	0.05	.0	.0	1.22	0.21	0.25	----------	3.67
Mean	.14	.16	.23	.44	.27	.65	.58	.46	.57	.10	.05	.0	3.70

TABLE 4.

Precipitation in inches at Keeler, California.

Elevation 3620.

Season.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
1884-85	----------	----------	----------	----------	----------	----------	.0	.0	0.12	0.82	.0	0.08	----------
1885-86	.0	0.11	.0	0.25	0.65	0.36	0.49	0.14	0.60	0.40	.0	.0	3.00
1886-87	0.14	0.08	.0	0.01	0.08	.0	trace	0.93	.0	1.14	0.04	trace	2.42
1887-88	0.52	.0	1.08	0.84	0.01	0.48	0.70	1.21	0.30	0.12	0.30	0.20	5.76
1888-89	0.17	0.10	0.06	.0	1.68	0.82	0.04	trace	0.52	0.12	0.06	0.01	3.58
1889-90	.0	trace	0.08	0.56	0.05	0.56	0.42	0.01	trace	0.10	0.20	.0	1.98
1890-91	.0	1.30	0.40	0.03	0.12	0.16	.0	0.98	0.16	0.10	0.37	0.30	3.92
1891-92	0.06	0.02	0.19	0.04	.0	0.31	0.26	0.19	0.32	.0	0.56	trace	1.95
1892-93	.0	trace	trace	0.81	0.11	0.54	0.71	0.73	0.84	trace	trace	.0	3.74
1893-94	0.41	trace	trace	trace	0.12	0.78	trace	0.29	0.01	trace	trace	trace	1.61
1894-95	0.11	.0	.0	.0	.0	1.05	0.35	1.15	trace	0.25	trace	trace	2.91
1895-96	trace	trace	trace	.0	.0	trace	0.45	.0	trace	trace	0.15	trace	0.60
1896-97	0.25	1.42	0.50	trace	.0	0.25	0.10	0.27	0.13	.0	trace	.0	2.92
1897-98	.0	0.19	0.14	0.15	trace	trace	.0	.0	.0	0.05	.0	.0	0.53
1898-99	.0	.0	trace	.0	trace	0.30	0.40	(0.45)	0	0.01	trace	0.50	(1.66)
1899-00	trace	trace	.0	trace	1.75	trace	trace	.0	0.16	1.25	0.23	trace	3.39
1900-01	0.10	trace	0.35	0.09	0.45	.0	0.75	0.25	.0	trace	0.40	.0	2.39
1901-02	.0	0.90	.0	0.50	.0	.0	trace	0.25	1.25	.0	.0	.0	2.90
1902-03	trace	trace	trace	.0	0.50	0.10	.0	0.10	trace	trace	trace	trace	0.70
1903-04	.0	.0	.0	.0	.0	.0	trace	0.70	0.50	.0	.0	.0	1.20
1904-05	trace	1.00	0.55	0.75	.0	.0	0.90	1.00	3.30	trace	1.10	.0	8.60
1905-06	.0	.0	.0	.0	1.50	.0	1.05	0.20	(0.20)	0.85	.0	.0	(2.80)
1906-07	(0.11)	.0	(0.18)	.0	0.30	0.10	1.55	0.33	1.12	.0	.0	1.00	(4.69)
1907-08	.0	.0	.0	1.94	.0	.0	0.91	1.08	.0	.0	0.25	.0	4.18
1908-09	0.50	0.58	2.75	.0	.0	.0	0.72	0.30	trace	.0	.0	.0	4.85
24-year mean	.10	.24	.26	.25	.26	.24	.41	.44	.39	.18	.15	.23	3.01

TABLE 5.

Precipitation in inches at Kernville, California.

Elevation 2600.

Season.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
1893-94	----------	----------	----------	----------	----------	----------	1.10	1.88	0.42	0.17	0.53	.0	----------
1894-95	.0	0.01	0.60	.0	.0	5.31	5.10	1.55	1.80	0.37	.0	.0	14.74
1895-96	.0	.0	.0	0.50	0.95	0.40	3.52	.0	1.54	0.86	.0	0.20	7.97
1896-97	2.25	0.05	.0	1.48	0.41	0.85	3.40	3.60	2.57	0.10	.0	.0	14.71
1897-98	.0	.0	.0	0.45	.0	1.14	0.47	0.85	0.35	.0	0.40	.0	3.66
1898-99	.0	.0	0.05	0.05	0.17	0.42	2.10	0.40	2.10	0.37	0.41	0.16	6.23
1899-00	.0	.0	.0	0.90	0.89	0.84	0.80	0.53	0.58	0.52	0.90	.0	5.96
1900-01	.0	.0	0.79	0.10	5.09	.0	1.35	2.92	0.15	0.31	1.62	.0	12.33
1901-02	.0	0.70	.0	0.72	0.15	.0	0.30	6.36	2.10	0.74	0.10	.0	11.17
1902-03	.0	.0	.0	0.16	0.85	0.45	2.05	1.75	1.50	0.80	.0	.0	11.24
1903-04	.0	.0	0.10	.0	1.60	0.29	0.20	2.48	2.60	0.43	.0	.0	7.70
1904-05	.0	0.27	0.79	.0	.0	0.72	1.00	3.15	3.90	0.52	1.21	.0	7.88
1905-06	.0	.0	0.10	.0	1.60	0.29	4.02	1.28	6.01	0.69	1.87	.0	13.87
1906-07	0.50	.0	.0	.0	0.50	2.36	2.72	0.76	2.14	0.18	.0	0.11	9.27
1907-08	.0	.0	.0	1.98	.0	1.73	1.34	2.60	0.20	0.19	0.08	.0	8.12
1908-09	0.15	0.10	0.82	0.16	0.92	0.30	8.41	8.52	1.84	.0	.0	.0	21.22
1910-11	0.25	.0	0.15	0.77	0.18	0.74	3.80	0.69	1.73	0.45	.0	0.20	8.96
16-year mean	.20	.07	.21	.45	.83	.99	2.54	2.34	1.94	.41	.41	.04	10.31

TABLE 6.

Description of Auger Test Holes Within and Near China Dry Lake, Indian Wells Valley.

Test hole.	Location.	Surface characteristics.	Character of material.	Depth to groundwater September 24-26, 1912, feet.
A	NE. ¼ Sec. 25, T. 25 S., R. 39 E.	Light colored smooth clay surface with scattered salt-grass.	2½ feet brownish yellow clay, 1½ feet fine reddish sand cemented, 2 feet fine gray sand with clay, clean quartz sand with water.	6.2 (Moist 4 inches below surface.)
B	NE. ¼ Sec. 25, T. 25 S., R. 39 E.	Thin alkali crust not puffed up. Scattered salt-grass.	4 feet light chocolate clay, 1¾ feet reddish silt to fine sand, 9 inches greenish gray clay, clean quartz sand with water.	6.7 (Moist 3 inches below surface.)
C	SE. ¼ Sec. 31, T. 25 S., R. 40 E.	Hard alkali crust ⅛ inch thick and puffed up. No vegetation.	3 feet fine sand, 1 foot transition to coarse sand, 2 feet coarse sand underlaid by crumbly clay.	6.0 (Moist under alkali crust.)
D	Near N. ¼ corner Sec. 4, T. 26 S., R. 40 E.	Thin film white alkali and scattered salt-grass; surface smooth.	2 feet fine sand, 1 foot coarse sand, 1 foot yellowish gray clay, coarse water bearing sand.	4.75 (Surface moist.)
E	SW. ¼ Sec. 36, T. 25 S., R. 40 E.	Tough alkali crust ½ inch thick. Short salt-grass. Surface smooth.	2 feet yellow clay, 9 inches fine green sand, 9 inches tough green clay, 9 inches coarse green sand, 3 inches tough green clay, coarse water bearing sand.	4.3 (Moist ½ inch below surface.)
F	SW. ¼ Sec. 6, T. 25 S., R. 41 E.	Alkali crust puffed up, broken and very uneven surface; scattered salt-grass.	4 feet fine yellow sand merging into coarser sand, clean quartz sand with water.	4.6 (Moist under alkali crust.)
G	Near N. ¼ corner Sec. 13. T. 25 S., R. 40 E.	Thin film white alkali; surface smooth.	Chocolate colored silt	3.2 (Surface moist.)
H	Sec. 9, T. 24 S., R. 40 E.	Thin film white alkali; surface smooth.	Chocolate colored silt with salt crystals	4.13 (Surface moist.)
I	Sec. 9, T. 24 S., R. 40 E.	Thin film white alkali; surface smooth.	Chocolate colored silt with salt crystals	3.23 (Surface moist.)
J	Sec. 9, T. 24 S., R. 40 E.	Thin film white alkali; surface smooth.	Chocolate colored silt with salt crystals	3.00 (Surface moist.)

TABLE 7.

Classification of Moist Lands Situated Within and Around China Dry Lake, Indian Wells Valley.

No.	Location.	Description.	Area in square mile.	Approximate depth to water in feet September 30.		
				Maximum.	Minimum.	Average.
I.	Upper Lake bottom.	Bare clay mud with slight alkali film; surface wet.	1.86	4	3	3.5
II.	Lower Lake bottom.	Bare hard clay with areas roughened by surface swelling; moist ⅔ of an inch below surface; no surface alkali showing.	5.40	5	4	4.5
III.	Bordering Lake east near old borax works.	Sparse growth salt-grass; alkali crust much broken and puffed up by swelling; moist beneath crust.	1.43	5	3.5	4.5
IV.	Bordering Lake south.	Bare soil; gray alkali crust with white spots; hard, brittle and puffed up; moist beneath crust.	0.64	5	4	4.5
V.	Bordering Lake in narrow zone, various portions.	Sparse growth salt-grass; alkali crust; transition zone from moist lake bottom to desert sands surface moist to dry.	2.00	7	4	5.5
VI.	Bordering Lake in long arm to west.	Sparse growth salt-grass; alkali crust; follows a swale and alkali and salt-grass more prevalent near drainage line.	3.38	6	5	5.5

TABLE 8.

Annual Evaporation from Moist Lands Situated Within and Around China Dry Lake, Indian Wells Valley.

No. of area.	Area in square miles.	Average depth to ground-water, feet.	Depth of evaporation per annum in inches.			Volume in acre-feet.	Equivalent flow, second-feet.
			Summer.	Winter.	Total.		
I	1.86	2.00	40.5	8.30	48.80	4,840	6.7
II	5.40	3.00	33.75	7.00	40.75	11,720	16.2
III	1.43	3.00	38.70	6.00	44.70	3,410	4.7
IV	0.64	3.00	33.75	7.00	40.75	1,390	1.9
V	2.00	4.00	31.00	4.80	35.80	3,820	5.3
VI	3.38	4.00	31.00	4.80	35.80	6,450	8.9
Totals	14.71					31,630	43.7

WELL DATA.

The well data collected during these investigations is by no means complete. It was planned to visit typical wells in various parts of the valley and determine approximate location, kind of well, depth, use, method of lift, depth to water, approximate elevation of ground surface and, if possible, the log. There were examined in all thirty-nine wells, consisting of about one third the total of wells in the valley. The wells chosen for study are distributed so as to give a knowledge of the depth to water throughout the valley and will be valuable as definite points at which to make future measurements. These wells are listed in Table 9, and their location is indicated on Plate II. The location of the wells is approximate, having been determined in the field by reference to roads, fences or clearings, and in some cases from the owner or driller. The approximate elevation of the surface at each well was obtained by interpolating between contours on Plate II. Depth to water is not from top of casing, but from surface of ground.

The depth to water as measured in the different wells varies from less than 10 feet to 280 feet below the ground surface. The latter depth was observed in well 32, which is located one mile northwest of Inyokern, and is higher up the slope than any of the others. The shallow depths occur near the dry lake basin. The relative positions of the ground surface and ground water surface between the Southern Pacific Railroad and the dry lake bed is shown graphically by the three profiles of Plate V. One profile extends east from the railroad near Brown along the section line one mile south of the Kern-Inyo County line. The depth to water at the railroad is approximately 180 feet and the slope of the water surface 15 feet per mile. This slope gradually flattens out toward the east and since the overlying ground surface is steeper the two surfaces approach each other. Near the west edge of the lake bottom the depth to water is less than eight feet and from here east the water surface is level across the lake bottom. The difference of elevation of water surface between the railroad and the west edge of the evaporating area, a distance of 12 miles, is about 125 feet. The average slope of the water surface is 10 feet per mile.

The next profile is five miles south of county line, about one mile north of Muerto Siding, and extends east. The depth to water at the railroad is about 80 feet and continually decreases until the evaporating area is reached. This profile follows the center of a broad depression extending west from the lake bottom and the ground water conditions correspond with those of the first profile from the 2,300 contour east. The difference of elevation of the water surface between the railroad and the west edge of the evaporating area, a distance of 11 miles, is about 100 feet. The average slope of the water surface is thus nine feet per mile.

TABLE 9.

List of Typical Wells in Indian Wells Valley.

No. of well.	Owner.	Location.	Class of well.	Approximate elevation of surface, feet.	Approximate elevation of water, feet.	Depth to water, feet.	Depth of well, feet.	Method of lift.	Use of water.
1	S. R. Smith	SE. ¼ Sec. 12, T. 25 S., R 38 E.	Bored 24 inches	2,380	2,248	132.0	337	Gas	Irrigation.
2	S. R. Smith	NW. ¼ Sec. 18, T. 25 S., R. 39 E.	Bored 24 inches	2,340	2,243	97.0	312	Gas	Irrigation.
3	S. R. Smith	NW. ¼ Sec. 19, T. 25 S., R. 39 E.	Bored 24 inches	2,298	2,223	75.0		None	None.
4	H. F. W Shuette	NE. ¼ Sec. 8, T. 25 S., R. 39 F.	Dug 5x6 feet	2,320	2,247	73.0	75	Hand	Domestic.
5	W. J. Eastman	S. ½ NE. ¼ Sec. 9, T. 25 S., R. 39 E.	Bored 7 inches	2,250	2,189	61.1		Hand	Domestic.
6	——— ———	NW. ¼ Sec. 2, T. 25 S., R 39 E.	Bored 12 inches	2,240	2,202	37.5		None	None.
7	M. J. Boynton	S. ½ Sec. 1, T. 25 S., R. 39 E.	Bored 7 inches	2,220	2,198	22.5		Hand	Domestic.
8	——— ———	NW. ¼ Sec. 7, T. 25 S., R. 40 E.	Bored 3 inches	2,195	2,171	24.0		Hand	Domestic.
9	C. C. Paxton	N. ½ Sec. 35, T. 25 S., R. 40 E.	Bored 6 inches	2,140	2,130	9.5		Gas	Stock.
10	Mrs. V. Lovenguth	NE. ¼ Sec. 30, T. 25 S., R. 39 E.	Dug 4½x3½ feet	2,249	2,218	31.2	40	Hand	Domestic.
11	R. B. Clapp	SW. ¼ Sec. 29, T. 25 S., R. 39 E.	Bored 12 inches	2,242	2,212	30.0	206	None	None.
12	Mrs. J. E. Edwards	S.W. ¼ Sec. 20, T. 25 S., R. 39 E.	Dug 5x5 feet	2,245	2,207	37.6	50	Wind	Domestic.
13	V. L. Carr	W ½ Sec. 27, T. 25 S., R. 39 E.	Bored 10 inches	2,210	2,184	25.9	103	Gas	Dom. and irrig.
14	D. N. Shanks	N. ½ Sec. 4, T. 26 S., R. 39 E.	Bored 12 inches	2,250	2,180	70.0		Gas	Irrigation.
15	W. H. Calloway	SE. ¼ Sec. 34, T. 25 S., R. 39 E.	Bored	2,225	2,175	50.0		Wind	Domestic.
16	J. W. Calloway	NE. ¼ Sec. 35, T. 25 S., R. 39 E.	Dug 4x4 feet	2,212	2,177	34.4		Wind	Dom. and stock.
17	E. B. Morse	S. ½ Sec. 10, T. 26 S., R. 39 E.	Dug 12 feet	2,298	2,172	126.0	300	Gas	Domestic.
18	C. B. Walker	NE. ¼ Sec. 31, T. 25 S., R. 39 E.	Dug 3 feet diam.	2,248	2,191	57.1		Hand	Domestic.
19	C. C. Paxton	S. ½ Sec. 31, T. 25 S., R. 39 E.	Bored 7 inches	2,280	2,208	72.0		Gas	Domestic.
20	E. C. Siebenthal	SW. ¼ Sec. 6, T. 26 S., R. 39 E.	Bored 6 inches	2,320	2,213	107.0	110	Wind	Dom. and stock.
21	——— Wachob	SE. ¼ Sec. 12, T. 25 S., R. 39 E.	Bored	2,205	2,189	16.0		Gas	Irrigation.
22	A. L. Pitzer	N. ½ Sec. 13, T. 25 S., R. 39 E.	Bored 12 inches	2,210	2,190	20.0		None	None.
23	E. S. Pitzer	N. ½ Sec. 24, T. 25 S., R. 39 E.	Bored 12 inches	2,195	2,173	21.7	260	None	None.
24	W. M Randall	W. ½ Sec. 14, T. 25 S., R. 39 E.	Bored	2,220	2,187	33.4	200	Gas	Irrigation.
25	O. E. Weisel	NE. ¼ Sec. 27, T. 25 S., R. 39 E.	Bored 6 inches	2,208	2,185	23.1	25	Hand	Domestic.
25a	O. E. Weisel	NW. ¼ Sec. 26, T. 25 S., R. 39 E.	Bored 6 inches	2,205	2,185	20.4	33	Hand	Stock.
25b	O. E. Weisel	NW. ¼ Sec. 26, T. 25 S., R. 39 E.	Bored	2,205	2,184	20.5	101	None	None.
26	M. J. Moor	NE. ¼ Sec. 8, T. 26 S., R. 40 E.	Bored	2,160	2,128	32.2	208	Gas	Irrigation.
27	Horace Bellows	SE. ¼ Sec. 28, T. 25 S., R. 39 E.	Bored	2,210	2,179	30.6	196	None	None.

29	Dr. Johnson	W. ½ Sec. 24, T. 26 S., R. 39 E.	Bored 14 inches	2,298	2,150	148.0	310	None	None.
30	John Joos	N. ½ Sec. 26, T. 26 S., R. 39 E.	Bored 12 inches	2,350	2,163	187.0	393	None	None.
31	Inyokern Co.	NE. ¼ Sec. 30, T. 26 S., R. 39 E.	Bored	2,423	2,198	225.0	750	Gas	Dom. and stock.
32	L. G. Fairbanks	S. ½ Sec. 24, T. 26 S., R. 38 E.	Bored	2,460	2,180	280.0		Gas	Irrigation.
33	—— Ulrey	N. ½ Sec. 25, T. 26 S., R. 39 E.	Bored 24 inches	2,310	2,156	154.5		None	None.
34	S. A. Arbothnot	S. ½ Sec. 19, T. 26 S., R. 40 E.	Bored 14 inches	2,282	2,154	127.8	263	None	None.
35	Lindsey Bros.	N. ½ Sec. 31, T. 26 S., R. 40 E.	Bored 24 inches	2,325	2,161	164.2		None	None.
36	Frank Wire	W. ½ Sec. 22, T. 26 S., R. 40 E.	Bored 12 inches	2,215	2,151	64 0		None	None.
37	C. D. Williamson	SW. ¼ Sec. 28, T. 26 S., R. 40 E.	Bored 12 inches	2,285	2,192	93.3	225	Gas	Dom. and stock.
38	Borax Works	E. ½ Sec. 12, T. 25 S., R. 40 E.	Bored 6 inches	2,138	2,132	5.5		Wind	Stock.

The third profile marked X-Y on Plate II, extends from a point on the railroad about two miles south of Inyokern in a northeast direction to an intersection with the profile from Muerto Siding. The depth of water at the railroad is about 250 feet and decreases to about six feet at the salt grass area near the end of the profile. The difference of the elevation of the water surface is 85 feet in a distance of nine miles, making the average slope nine feet per mile.

It can be said that in the vicinity of Brown and Muerto Siding the depth of water along the 2,400-foot contour, as shown on Plate II, is about 150 feet. Further south the depth increases to 200 feet at a point two miles south of Inyokern. The depth decreases toward the east, rapidly at first and then gradually. Within the area of alkali land the depth is less than eight feet. The slope of the ground water surface is within the 2,400-foot contour varies from a maximum of 20 feet per mile near Inyokern to horizontal beneath the lake bottom.

PLATE IV-A.—North arm of China Dry Lake.

The average slope between the 2,400-foot contour and the west edge of the evaporating area is between 9 and 10 feet per mile.

The slope of the ground water surface of this type depends upon the rate at which it receives accretions from the sources of percolating water along the base of the adjacent mountains. When the supply is abundant, as in Owens Valley or San Bernardino Valley, the slopes are steep. For example, opposite Mentone and Redlands in San Bernardino Valley the ground water slope averages 70 feet per mile for several miles, while near Independence in Owens Valley the slope is 90 feet per mile and becomes steeper near the mountains. The ground water basins having abundant water-supply are also characterized by strong flowing springs and cienegas around and in the gently sloping or level portions of their lowest depression. The characteristics of abundant ground water supply are all lacking in Indian Wells Valley and thus tend to confirm the earlier conclusions of this study that the supply of ground water is very limited.

The logs of nineteen wells were obtained, some of them from owners but most of them from local well drillers who were very accommodating in furnishing data. None of these wells are situated in T. 25 S., R. 39 E.; six in T. 26 S., R. 39 E.; two in T. 26 S., R. 40 E.; and the other two scattered. The well depths vary from 124 to 339 feet. The logs are all very similar, showing in general a succession of layers of clay and coarse water bearing gravel with occasional layers of fine sand. The per cent of water bearing gravel to the total depth of well varies from 13 to 62 but in most of the wells is about 35 per cent. The gravels are open and coarse and yield water readily. The best water bearing material lies south of the Kern-Inyo boundary, west of the 2,175-foot contour and west of the north and south center line through T. 26 S., R. 40 E. There is a tendency toward fine sands and clays along the center of the depression extending east from Muerto Siding.

Following are the logs from four typical wells:

Well 14: D. W. Shanks, owner; located in northeast quarter of section 4, township 26 south, range 39 east:

Soil and sand, dry	surface to 80 feet
Water bearing gravel	80 to 85 feet
Clay	85 to 95 feet
Water bearing gravel	95 to 105 feet
Clay	105 to 115 feet
Water bearing gravel	115 to 139 feet
Clay	139 to 145 feet
Water bearing gravel	145 to 152 feet
Clay	152 to 157 feet
Water bearing gravel	157 to 162 feet
Clay	162 to 183 feet
Cemented sand	183 to 188 feet
Sandy clay	188 to 198 feet
Clay	198 to 214 feet
Water bearing gravel	214 to 250 feet
Fine sand, water bearing	250 to 265 feet
Water bearing gravel	265 to 292 feet
Cemented sand	292 to 295 feet

Well 3: S. R. Smith, owner; located in northwest quarter of section 19, township 25 south, range 39 east:

Soil, sand and gravel	surface to 160 feet
Water bearing gravel	160 to 180 feet
Clay	180 to 242 feet
Water bearing gravel	242 to 247 feet
Clay	247 to 249 feet
Fine sand	249 to 265 feet
Cemented sand	265 to 269 feet
Water bearing gravel	269 to 272 feet
Clay	272 to 285 feet
Water bearing gravel	285 to 290 feet
Clay	290 to 294 feet
Water bearing gravel	294 to 325 feet

Casing landed in clay.

Well 24: W. M. Randall, owner; located in the west half of section 14, township 25 south, range 39 east:

Soil and sand	surface to 38 feet
Water bearing gravel	33 to 63 feet
Clay	63 to 71 feet
Water bearing gravel	71 to 75 feet
Clay	75 to 93 feet
Water bearing gravel	93 to 101 feet
Clay	101 to 120 feet
Water bearing gravel	120 to 145 feet
Fine sand	145 to 155 feet
Sandy blue clay	155 to 200 feet

Well —: Henry V. Hoffman, owner; located in the east half of section 27, township 26 south, range 40 east:

Soil and hard cemented sand	surface to 8 feet
Dry gravel	8 to 50 feet
Cemented sand	50 to 90 feet
Sand and shale	90 to 124 feet
Sand	124 to 127 feet
Shale	127 to 164 feet
Water bearing sand	164 to 167 feet
Shale	167 to 258 feet
Water bearing gravel	258 to 260 feet

There are eight wells in the valley that have been equipped with modern power pumps which are delivering water for irrigation use. The pumps are of various types, including centrifugal, rotary and deep well plunger pumps (Plate IV, B). Power is supplied by gas engines at present, but in the near future electricity will be available from the Southern Sierra Power Company, whose transmission line from Bishop Creek to San Bernardino passes through the valley just east of the railroad. The best wells which have been tested yield less than 60 miner's inches and are reported to have a pumping water level from

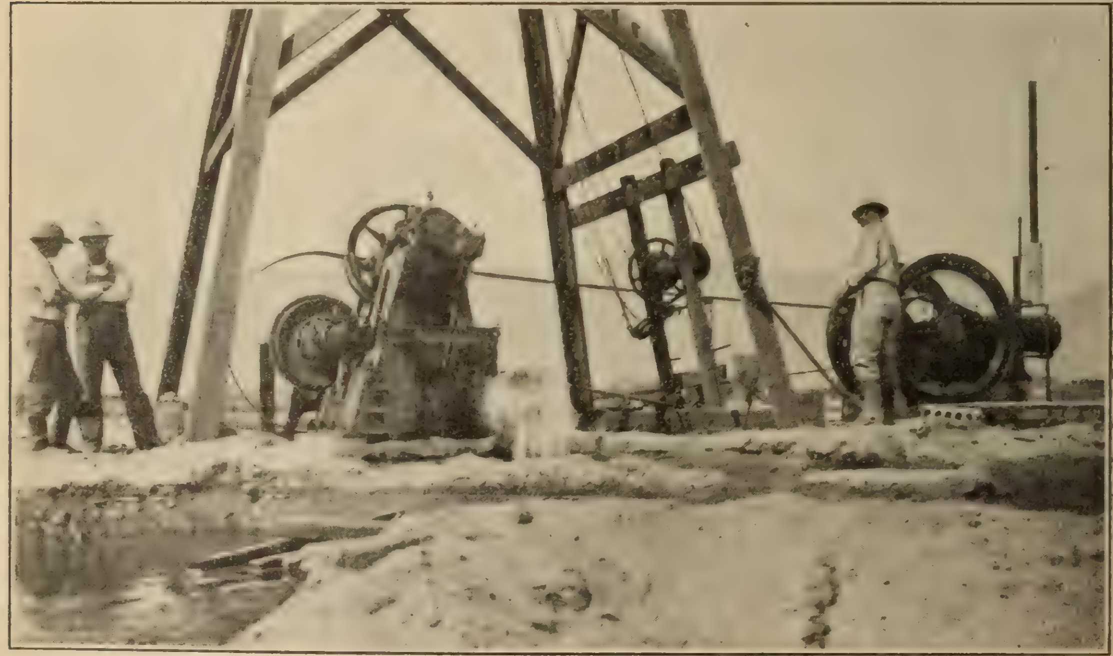
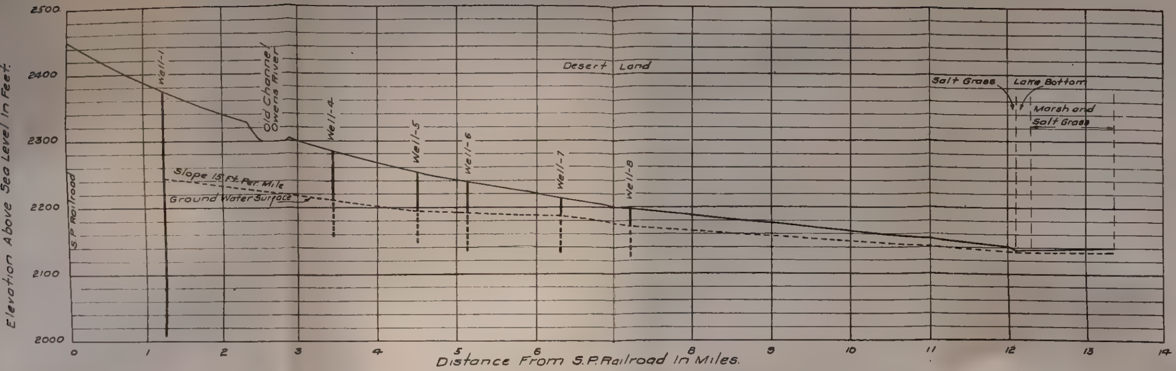
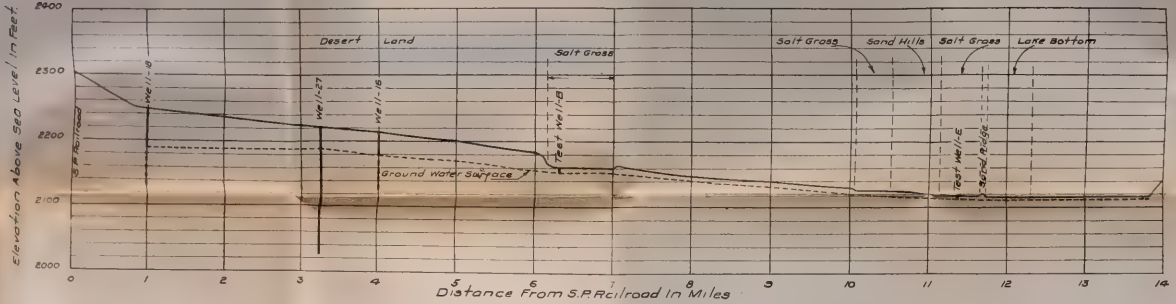


PLATE IV-B.—Pumping plant at Well 1 under test.

SECTION EAST AND WEST ONE MILE SOUTH OF COUNTY LINE



SECTION EAST AND WEST FIVE MILES SOUTH OF COUNTY LINE



SECTION X-Y

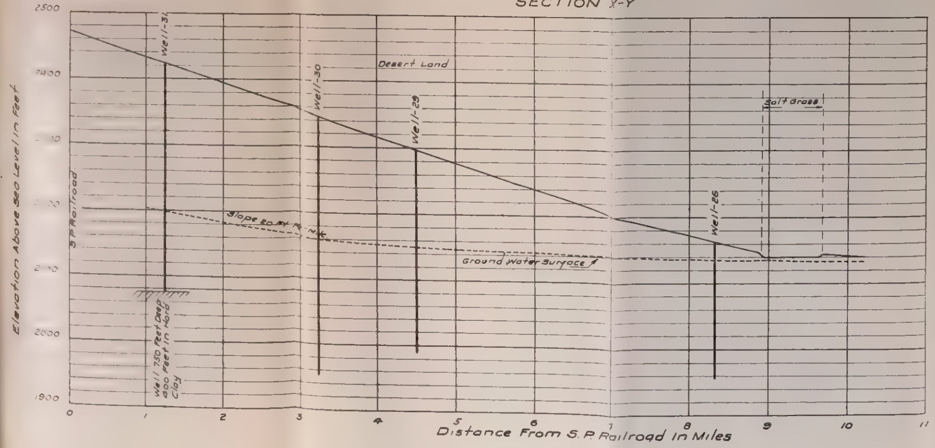


PLATE V
SECTIONAL VIEWS
OF
INDIAN WELLS VALLEY
SHOWING
PROFILES OF SURFACE
AND
GROUND WATER
SEPT.-1912

20 to 40 feet below normal. None of them yield as much water as is being pumped with the same equipment and lift from wells in regions of more abundant ground water supply. This is probably due to the flat slope of the general ground water surface and the resulting slow movement of ground water toward wells to replace water which is being pumped out. It is a further confirmation of the fact that the water-supply is limited.

The quality of the well waters is excellent for domestic or irrigation use throughout most of the settled portions of the valley. In wells nearer the dry lake, however, the mineral content increases and ground waters beneath the lake are heavily charged with the soluble salts typical of the region. The 2,175-foot contour can be taken as the approximate dividing line between waters which are fit for domestic use and those which cannot thus be used permanently. It is possible that waters pumped from wells as far east as the 2,150-foot contour could be used for irrigating but the ultimate effect would not be beneficial to the plant growth.

CONCLUSIONS.

1. The total volume of water which can be annually pumped from the gravels underlying the agricultural land in the Indian Wells Valley, without permanently lowering the ground water levels, does not exceed 11,000 acre-feet per annum.

2. To develop this amount of water the distance between regularly pumped wells should exceed one and one-half miles and not more than 200 acre-feet per year (50 miner's inches, twelve hours per day for six months) should be pumped from any one well.

3. The best location for wells is between the 2,400 and the 2,175-foot contour of Plate II, west of the north and south center line of T. 26 S., R. 40 E., and south of the Kern-Inyo County line.

4. The total number of acres which can be irrigated by means of this water-supply is about 2,000 acres, and the area which can be irrigated from each well not more than 40 acres.

5. Measurements of the depth to water in typical wells should be made at least annually to determine the effect of pumping upon the water plane.

6. The water supply of Indian Wells Valley is sufficient to irrigate not more than 3 per cent of the agricultural land.

7. Water supply conditions in other desert valleys of southeastern California are similar to those described for Indian Wells Valley.

EXHIBIT "A."

Data Concerning Timber Holdings in California.

Group 1.

Over 500,000 acres.

Owner.	County.	Acreage.	Total.	Percentage of whole.
S. P. Co.	Yuba	7,400		
	Sierra	73,978		
	Tehama	16,126		
	Siskiyou	277,830		
	Butte	20,840		
	Trinity	145,606		
	Plumas	4,977		
	Shasta	109,850		
	San Bernardino	160		
	Placer	114,004		
	Riverside	26		
	Nevada	50,281	821,078	18
T. B. Walker	Plumas	82,321		
	Tehama	8,945		
	Modoc	135,882		
	Lassen	165,437		
	Siskiyou	88,279		
	Shasta	234,296	715,160	15.7

Group 2.

Over 100,000 acres.

McCloud River Lumber Co.	Siskiyou	152,471		
	Shasta	4,225	156,696	3.44

Group 3.

Over 50.000 acres.

Union Lumber Co.	Mendocino	57,700	57,700	1.27
Hammond Lumber Co.	Humboldt	91,580		
	Del Norte	960	92,540	2.03
C. A. Smith Lumber Co.	Humboldt	29,800		
	El Dorado	46,700	76,500	1.68
Diamond Match Co.	Plumas	5,230		
	Tehama	21,318		
	Butte	24,100		
	Shasta	5,617	56,265	1.23
Curtis, Collins & Holbrook	Tehama	31,599		
	Plumas	31,737	63,336	1,17
Weed Lumber Co.	Plumas	31,737	63,336	1.39
	Siskiyou	53,468	53,468	1.17

EXHIBIT A—*Continued.*

Group 4.

Over 20,000 acres.

Owner.	County.	Acreage.	Total.	Percentage of whole.
Pennsylvania Lumber Co.	Lassen	29,840	29,840	.66
Manistique Lumber Co.	Modoc	45,923	45,923	1.01
Del Norte Co.	Del Norte	23,920	23.920	.53
W. E. Wheeler	Butte	19,537		
	Plumas	21,939	41,476	.91
Standard Lumber Co.	Tuolumne	26,080	26,080	.57
White & Friant Lumber Co.	Tuolumne	6.460		
	Madera	12,840		
	Mariposa	2,080	21,380	.47
West Side Lumber Co.	Tuolumne	39,590	39,590	.87
Charles A. Ruggles	Calaveras	37,840	37,840	.82
Michigan Trust Co.	Modoc	15,793		
	Mendocino	8,000	23,793	.52
New York & Penn. Redwood Co.	Mendocino	20,600	20,600	.45
Mendocino Lumber Co.	Mendocino	21,488	21,488	.47
Vance Redwood Lumber Co.	Humboldt	17,950		
	Del Norte	6,800	24,750	.54
Sierra Nevada Wood & Lbr. Co.	Sierra	35,308		
	Placer	560	36,308	.80
Roberts Lumber Co.	Sierra	3,240		
		440		
	Plumas	24,682	27,922	.61
E. B. Perrin	Tehama	31,755	31,755	.70
Pacific Coast Redwood Co.	Mendocino	37,280	37,280	.82
Sage Land Improvement Co.	Mendocino	30,080		
	Humboldt	18,640	48,720	1.07
L. E. White Lumber Co.	Mendocino	30,960	30,960	.68
Desert Redwood Co.	Humboldt	22,430	22,430	.49
Pacific Lumber Co.	Humboldt	46,220	46,220	1.02
J. E. Henry & Sons	Humboldt	32,880	32,880	.72

EXHIBIT A—*Continued.*

Group 5.

Over 15,000 acres.

Owner.	County.	Acreage.	Total.	Percentage of whole.
Isaac Minor	Tuolumne	10,500		
	Mariposa	7,020	17,520	.39
Empire Redwood Co.	Mendocino	6,080		
	Sonoma	10,245	16.325	.36
Scott Graff	Lassen	18.065	18,065	.40
Truckee Lumber Co.	Butte	13,250		
	Plumas	3,080	16,330	.36
Fruit Growers' Supply Co.	Siskiyou	14,650		
	Shasta	1,400	16,050	.35
El Sur Rancho	Monterey	17,528	17,528	.39
Brown Bros. Lumber Co.	Calaveras	12,920		
	Amador	3,840	16,760	.37
Dempsey, Piler & Wentz	Modoc	16.216	16,216	.36
Sionseta Lumber Co.	Modoc	17,910	17,910	.39
Warren Timber Co.	Humboldt	15 000	15.000	.33
Northern Redwood Lumber Co.	Humboldt	17,600	17,600	.39
Soper Wheeler	Shasta	4,674		
	Plumas	7,631		
	Butte	3,860		
	Yuba	1,960	18,125	.40
Casper Lumber Co.	Mendocino	16,260	16,260	.36
North Coast Development Co.	Mendocino	15,340	15,340	.34
A. H. Flemming	Mendocino	16,420		
	Madera	2,720	19,140	.42
John McAlpine	Lassen	8,450		
	Sierra	2,680		
	Shasta	200		
	Plumas	640		
	Tehama	4,038	16,008	.35
Hotchkiss Timber Co.	Del Norte	18,660	18,660	.41
Hobbs-Wall Co.	Del Norte	15,920	15,920	.35

Group 6.

Over 10,000 acres.

Owner.	County.	Acreage.	Total.	Percentage of whole.
Wheeler Timber Co.	Sonoma	5,490		
	Mendocino	7,680	13,170	.29
A. J. Hardon Estate	Mendocino	10,600	10,600	.23
Southern Humboldt Lumber Co.	Mendocino	12,160		
	Humboldt	240	12,400	.27
Thomas Blair	Humboldt	11,520	11,520	.25
Merryman Fruit, Land & Lumber Co.	Humboldt	11,120	11,120	.25
R. B. Whiteside	Tuolumne	10,560		
	Calaveras	1,840	12,400	.27
H. C. Ward et al.	Del Norte	5,200		
	Humboldt	8,640	13,840	.30
Silver Fork Lumber Co.	El Dorado	11,960	11,960	.26
Baker, Piler, Dempsey & Wentz	Modoc	10,447	10,447	.23
Warde, W. C., F. B. & F. L.	Del Norte	12,440	12,440	.27
Northwestern Redwood Co.	Mendocino	10,060	10,060	.22
McArthur & Ducey	Tuolumne	10,880	10,880	.24
Glen Blair Lumber Co.	Mendocino	10,620	10,620	.23
Fresno Flume & Lumber Co.	Fresno	11,623	11,623	.26
Mendenhall Cattle Co.	San Diego	13,740	13,740	.30
Mono Lake R. R. Co.	Mono	14,400	14,400	.32
Lagunitas Water Co.	Marin	11,597	11,597	.26
Madera Sugar Pine Co.	Mariposa	9,080		
	Madera	3,256	12,336	.27
Power Lumber Co.	Placer	10,899	10,899	.24
Read Timber Lumber Co.	Placer	10,000	10,000	.22

EXHIBIT A—*Continued.*

Group 7.

Over 5,000 acres.

Owner.	County.	Acreage.	Total.	Percentage of whole.
El Dorado Lumber Co.	El Dorado	8,920	8,920	.20
Irvine Muir Lumber Co.	Mendocino	7,230	7,230	.16
Sunset Trading & Land Co.	Mendocino	5,920	5,920	.13
Rose, L. B.	Mendocino	5,080	5,080	.11
McPherson, R., et al.	Mendocino	6,760	6,760	.15
Reno Mills & Lumber Co.	Plumas	5,225	5,225	.11
Hooker, J. H.	Humboldt	5,120	5,120	.11
Dolbeer, Carson Lumber Co.	Humboldt	8,510	8,510	.19
McClure Land Co.	Humboldt	6,720	6,720	.15
Weston, B. F.	Calaveras	6,000	6,000	.13
Pacific Improvement Co.	Shasta	4,450		
	Placer	1,160	5,610	.12
Floriston Pulp & Paper Co.	Placer	5,280	5,280	.12
Yosemite Lumber Co.	Mariposa	7,600	7,600	.17
Roe Burgass Land Co.	Siskiyou	1,769		
	Modoc	5,776	7,545	.17
Foster Co.	Mendocino	5,240	5,240	.12
Stearns Lumber Co.	Mendocino	6,040	6,040	.13
Consolidated Redwood Co.	Mendocino	5,600	5,600	.12
Albion Lumber Co.	Mendocino	7,700	7,700	.17
Northwest Land Co.	Humboldt	6,160	6,160	.14
Mitchell, Dorr Realty Co.	Humboldt	9,960	9,960	.22
Hicks Vaughn Redwood Co.	Humboldt	5,440	5,440	.12
Hume Bennett Lumber Co.	Fresno	5,280		
	Tulare	320	5,600	.12
Fleitz, George F.	Tulare	8,940	8,940	.20
Five States Lumber Co.	Siskiyou	9,080		
	Shasta	486	9,566	.21
Amador Lumber Co.	El Dorado	240		
	Amador	8,013	8,253	.18
Santa Cruz Lime Co.	Santa Cruz	6,932	6,932	.15
McRae, Donald	Tulare	8,680	8,680	.19
Greenwald, Levi & Co.	Tulare	5,240		
	Plumas	2,148		
	Yuba	2,400	9,788	.22
The A. Brown Co.	Tulare	1,960		
	Glenn	1,400		
	Kern	3,840	7,200	.16
Riley, H. B., & Niblack, W. C.	Glenn	8,256	8,256	.18
Bear Valley Mutual Co.	San Bernardino	5,257	5,257	.12
Kern County Land Co.	Kern	4,760	4,760	.12
	Ventura	803	5,563	
Hopkins, Emily B.	Sonoma	5,836	5,836	.13
Briggs, Frank & Hiram	Sonoma	5,640	5,640	.12
Kern, William, et al.	Lassen	6,110	6,110	.13
Cone Ranch Co.	Lassen	5,152	5,152	.11
Boca Mills Lumber Co.	Sierra	5,120	5,120	.11
Algorna Lumber Co.	Siskiyou	5,120	5,120	.11
Roberts, E. C.	Siskiyou	9,000	9,000	.20
Winton Lumber Co.	Siskiyou	6,960	6,960	.15
Allen, A. M., et al.	Monterey	9,021	9,021	.20

Group 8.

Under 5,000 acres.

Holdings of a large number of small owners, 971,580 acres............21.33% of all

EXHIBIT D.

School Land Data.

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 16, T. 16 N., R. 1 E., H.	Surveyed		156.29	156.29
Sec. 36, T. 16 N., R. 1 E., H.	Surveyed		160	160
Sec. 36, T. 18 N., R. 1 E., H.	Surveyed	440		440
Sec. 36, T. 5 N., R. 2 E., H.	Surveyed		120	120
Sec. 36, T. 17 N., R. 2 E., H.	Surveyed	320		320
Sec. 36, T. 19 N., R. 2 E., H.	Surveyed	304.38		304.38
Sec. 36, T. 4 N., R. 3 E., H.	Surveyed		160	160
Sec. 36, T. 8 N., R. 3 E., H.	Surveyed	40		40
Sec. 16, T. 14 N., R. 3 E., H.	Surveyed	600		600
Sec. 36, T. 14 N., R. 3 E., H.	Surveyed	160		160
Sec. 36, T. 15 N., R. 3 E., H.	Surveyed	240		240
Sec. 16, T. 17 N., R. 3 E., H.	Surveyed	420.34		420.34
Sec. 16, T. 18 N., R. 3 E., H.	Surveyed	6.65		6.65
Sec. 36, T. 18 N., R. 3 E., H.	Surveyed	15.17		15.17
Sec. 36, T. 5 N., R. 4 E., H.	Surveyed		360	360
Sec. 16, T. 11 N., R. 4 E., H.	Surveyed	111.88		111.88
Sec. 16, T. 14 N., R. 4 E., H.	Surveyed	239.51		239.51
Sec. 36, T. 14 N., R. 4 E., H.	Surveyed	260		260
Sec. 16, T. 15 N., R. 4 E., H.	Surveyed	640		640
Sec. 36, T. 15 N., R. 4 E., H.	Surveyed	80		80
Sec. 16, T. 16 N., R. 4 E., H.	Surveyed	120		120
Sec. 36, T. 16 N., R. 4 E., H.	Surveyed	240		240
Sec. 36, T. 17 N., R. 4 E., H.	Surveyed	9.02		9.02
Sec. 16, T. 18 N., R. 4 E., H.	Surveyed	137.04		137.04
Sec. 36, T. 18 N., R. 4 E., H.	Surveyed	51.94		51.94
Sec. 36, T. 19 N., R 4 E., H.	Surveyed		640	640
Sec. 16, T. 1 N., R. 5 E., H.	Surveyed		80	80
Sec. 36, T. 3 N., R. 5 E., H.	Surveyed	487.76		487.76
Sec. 16, T. 4 N., R. 5 E., H.	Surveyed	480		480
Sec. 16, T. 6 N., R. 5 E., H.	Surveyed	120		120
Sec. 36, T. 3 N., R. 6 E., H.	Surveyed	160		160
Sec. 16, T. 4 N., R. 6 E., H.	Surveyed	19.62		19.62
Sec. 36, T. 4 N., R. 6 E., H.	Surveyed	120		120
Sec. 16, T. 6 N., R. 6 E., H.	Surveyed	42.25		42.25
Sec. 36, T. 6 N., R. 6 E., H.	Surveyed	120		120
Sec. 16, T. 7 N., R. 6 E., H.	Surveyed	640		640
Sec. 36, T. 7 N., R. 6 E., H.	Surveyed	6.60		6.60
Sec. 16, T. 8 N., R. 6 E., H.	Surveyed	80		80
Sec 16, T. 9 N., R. 6 E., H.	Surveyed	7.07		7.07
Sec. 36, T. 9 N., R. 6 E., H.	Surveyed	80		80
Sec. 16, T. 10 N., R. 6 E., H.	Surveyed	400		400
Sec. 16, T. 13 N., R. 6 E., H.	Surveyed	80		80
Sec. 36, T. 13 N., R. 6 E., H.	Surveyed	80		80
Sec. 16, T. 15 N., R. 6 E., H.	Surveyed	97.27		97.27
Sec. 16, T. 16 N., R. 6 E., H.	Surveyed	446.71		446.71
Sec. 36, T. 16 N., R. 6 E., H.	Surveyed	560		560
Sec. 36, T. 17 N., R. 6 E., H.	Surveyed	80		80
Sec. 16, T. 7 N., R. 5 E., H.	Surveyed	322.14		322.14
Sec. 36, T. 9 N., R. 5 E., H.	Surveyed	160		160
Sec. 36, T. 10 N., R. 5 E., H.	Surveyed	10.12		10.12
Sec. 36, T. 11 N., R. 5 E., H.	Surveyed	6.87		6.87
Sec. 16, T. 12 N., R. 5 E., H.	Surveyed	1.75		1.75
Sec. 16, T. 13 N., R. 5 E., H.	Surveyed	160		160
Sec 16, T. 13 N., R. 5 E., H.	Surveyed	80		80
Sec. 16, T. 14 N., R. 5 E., H.	Surveyed	75.79		75.79
Sec. 36, T. 14 N., R. 5 E., H.	Surveyed	40		40
Sec 16, T. 15 N., R. 5 E., H.	Surveyed	40		40
Sec 36, T. 15 N., R. 5 E., H.	Surveyed	30.77		30.77
Sec. 16, T. 16 N., R. 5 E., H.	Surveyed	80		80

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 36, T. 16 N., R. 5 E., H.	Surveyed	250		250
Sec. 36, T. 18 N., R. 5 E., H.	Surveyed	95		95
Sec. 36, T. 19 N., R. 5 E., H.	Surveyed	1.32		1.32
Sec 36, T. 1 N., R. 6 E., H.	Surveyed	160		160
Sec. 36, T. 2 N., R. 6 E., H.	Surveyed	80.91		80.91
Sec. 36, T. 18 N., R. 6 E., H.	Surveyed	40.08		40.08
Sec. 16, T. 3 N., R. 7 E., H.	Surveyed	400		400
Sec. 36, T. 3 N., R. 7 E., H.	Surveyed	320		320
Sec. 36, T. 4 N., R. 7 E., H.	Surveyed	170.01		170.01
Sec. 16, T. 5 N., R. 7 E., H.	Surveyed	320		320
Sec. 36, T. 5 N., R. 7 E., H.	Surveyed	320		320
Sec. 16, T. 6 N., R. 7 E., H.	Surveyed	280		280
Sec. 36, T. 6 N., R. 7 E., H.	Surveyed	120		120
Sec. 16, T. 7 N., R. 7 E., H.	Surveyed	560		560
Sec. 16, T. 8 N., R. 7 E., H.	Surveyed	560		560
Sec. 36, T. 8 N., R. 7 E., H.	Surveyed	207.72		207.72
Sec. 36, T. 9 N., R. 7 E., H.	Surveyed	280		280
Sec. 16, T. 10 N., R. 7 E., H.	Surveyed	20		20
Sec. 36, T. 10 N., R. 7 E., H.	Surveyed	8.97		8.97
Sec. 16, T. 13 N., R. 7 E., H.	Surveyed	80		80
Sec. 16, T. 14 N., R. 7 E., H.	Surveyed	201.71		201.71
Sec. 36, T. 14 N., R. 7 E., H.	Surveyed	80		80
Sec. 16, T. 15 N., R. 7 E., H.	Surveyed	202.30		202.30
Sec. 36, T. 15 N., R. 7 E., H.	Surveyed	480		480
Sec. 16, T. 17 N., R. 7 E., H.	Surveyed	2.25		2.25
Sec. 36, T. 17 N., R. 7 E., H.	Surveyed	160		160
Sec. 36, T. 19 N., R. 7 E., H.	Surveyed	600		600
Sec 16, T. 2 N., R. 1 W., H.	Surveyed		160	160
Sec. 36, T. 7 N., R. 1 W., H.	Surveyed		48	48
Sec 16, T. 5 N., R. 1 W., H.	Surveyed		110	110
Sec. 16, T. 1 S., R. 1 W., H.	Surveyed		120	120
Sec. 36, T. 1 S., R. 1 W., H.	Surveyed		320	320
Sec. 16, T. 3 S., R. 1 W., H.	Surveyed		160	160
Sec. 36, T. 3 S., R. 1 W., H.	Unsurveyed		640	640
Sec. 36, T. 1 S., R. 3 W., H.	Surveyed		44.98	44.98
Sec. 16, T. 2 S., R. 1 E., H.	Surveyed		160	160
Sec. 36, T. 3 S., R. 1 E., H.	Surveyed		40	40
Sec. 16, T. 4 S., R. 1 E., H.	Unsurveyed		560	560
Sec. 16, T. 5 S., R. 3 E., H.	Surveyed		80	80
Sec. 16, T. 5 S., R. 4 E., H.	Surveyed		320	320
Sec. 36, T. 5 S., R. 4 E., H.	Surveyed		320	320
Sec. 36, T. 5 S., R. 5 E., H.	Surveyed		400	400
Sec. 36, T. 1 S., R. 6 E., H.	Surveyed	560		560
Sec. 36, T. 3 S., R. 6 E., H.	Surveyed		320	320
Sec. 16, T. 2 S., R. 7 E., H.	Surveyed	280		280
Sec. 36, T. 2 S., R. 7 E., H.	Surveyed	440		440
Sec. 36, T. 3 S., R. 7 E., H.	Surveyed	360		360
Sec. 16, T. 4 S., R. 7 E., H.	Surveyed		240	240
Sec. 36, T. 4 S., R. 7 E., H.	Surveyed	640		640
Sec. 16, T. 3 S., R. 8 E., H.	Surveyed	514.57		514.57
Sec. 16, T. 5 S., R. 8 E., H.	Surveyed		80.66	80.66
Sec. 16, T. 1 N., R. 1 E., M. D.	Surveyed		560	560
Sec. 36, T. 3 N., R. 1 E., M. D.	Surveyed		38.79	38.79
Sec. 16, T. 7 N., R. 1 E., M. D.	Surveyed		320	320
Sec. 36, T. 7 N., R. 1 E., M. D.	Surveyed		640	640
Sec. 36, T. 11 N., R. 1 E., M. D.	Surveyed		320	320
Sec. 36, T. 12 N., R. 1 E., M. D.	Surveyed		120	120
Sec. 36, T. 13 N., R. 1 E., M. D.	Surveyed		29.53	29.53
Sec. 16, T. 15 N., R. 1 E., M. D.	Surveyed		173.15	173.15
Sec. 36, T. 15 N., R. 1 E., M. D.	Surveyed		43.26	43.26

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 16, T. 16 N., R. 1 E., M. D.	Surveyed		160	160
Sec. 36, T. 27 N., R. 1 E., M. D.	Surveyed		640	640
Sec. 36, T. 28 N., R. 1 E., M. D.	Surveyed		40	40
Sec. 36, T. 36 N., R. 1 E., M. D.	Surveyed		324.24	324.24
Sec. 36, T. 41 N., R. 1 E., M. D.	Surveyed		280	280
Sec. 16, T. 42 N., R. 1 E., M. D.	Surveyed		640	640
Sec. 36, T. 43 N., R. 1 E., M. D.	Surveyed	640		640
Sec. 36, T. 45 N., R. 1 E., M. D.	Surveyed	640		640
Sec. 36, T. 47 N., R. 1 E., M. D.	Surveyed		400	400
Sec. 16, T. 48 N., R. 1 E., M. D.	Surveyed		168.39	168.39
Sec. 16, T. 4 N., R. 2 E., M. D.	Surveyed		320	320
Sec. 36, T. 6 N., R. 2 E., M. D.	Surveyed		13.25	13.25
Sec. 16, T. 7 N., R. 2 E., M. D.	Surveyed		160	160
Sec. 36, T. 7 N., R. 2 E., M. D.	Surveyed		640	640
Sec. 36, T. 8 N., R. 2 E., M. D.	Surveyed		320	320
Sec. 36, T. 11 N., R. 2 E., M. D.	Surveyed		160	160
Sec. 16, T. 12 N., R. 2 E., M. D.	Surveyed		600	600
Sec. 16, T. 14 N., R. 2 E., M. D.	Surveyed		240	240
Sec. 36, T. 15 N., R. 2 E., M. D.	Surveyed		320	320
Sec. 36, T. 23 N., R. 2 E., M. D.	Surveyed		200	200
Sec. 16, T. 24 N., R. 2 E., M. D.	Surveyed		640	640
Sec. 16, T. 26 N., R. 2 E., M. D.	Surveyed	640		640
Sec. 36, T. 36 N., R. 2 E., M. D.	Surveyed		140	140
Sec. 16, T. 42 N., R. 2 E., M. D.	Surveyed	80		80
Sec. 36, T. 43 N., R. 2 E., M. D.	Unsurveyed	640		640
Sec. 16, T. 45 N., R. 2 E., M. D.	Surveyed	80		80
Sec. 36, T. 46 N., R. 2 E., M. D.	Surveyed		360	360
Sec. 16, T. 47 N., R. 2 E., M. D.	Surveyed		234.09	234.09
Sec. 36, T. 2 N., R. 3 E., M. D.	Surveyed		.78	.78
Sec. 16, T. 3 N., R. 3 E., M. D.	Unsurveyed		.61	.61
Sec. 16, T. 4 N., R. 3 E., M. D.	Unsurveyed		6.43	6.43
Sec. 36, T. 5 N., R. 3 E., M. D.	Unsurveyed		15.57	15.57
Sec. 16, T. 6 N., R. 3 E., M. D.	Surveyed		40	40
Sec. 16, T. 8 N., R. 3 E., M. D.	Surveyed		640	640
Sec. 16, T. 11 N., R. 3 E., M. D.	Surveyed		1.32	1.32
Sec. 36, T. 24 N., R. 3 E., M. D.	Surveyed		29.79	29.79
Sec. 16, T. 26 N., R. 3 E., M. D.	Surveyed		640	640
Sec. 16, T. 28 N., R. 3 E., M. D.	Surveyed		640	640
Sec. 36, T. 29 N., R. 3 E., M. D.	Surveyed	40		40
Sec. 36, T. 30 N., R. 3 E., M. D.	Unsurveyed	1.22		1.22
Sec. 16, T. 37 N., R. 3 E., M. D.	Surveyed		160	160
Sec. 36, T. 41 N., R. 3 E., M. D.	Unsurveyed	.32		.32
Sec. 16, T. 43 N., R. 3 E., M. D.	Surveyed	640		640
Sec. 36, T. 43 N., R. 3 E., M. D.	Surveyed	60		60
Sec. 36, T. 44 N., R. 3 E., M. D.	Surveyed	560		560
Sec. 16, T. 45 N., R. 3 E., M. D.	Surveyed		640	640
Sec. 36, T. 45 N., R. 3 E., M. D.	Surveyed		640	640
Sec. 16, T. 46 N., R. 3 E., M. D.	Unsurveyed		40	40
Sec. 36, T. 46 N., R. 3 E., M. D.	Unsurveyed		2.47	2.47
Sec. 16, T. 47 N., R. 3 E., M. D.	Surveyed		81	81
Sec. 16, T. 1 N., R. 4 E., M. D.	Unsurveyed		.48	.48
Sec. 36, T. 2 N., R. 4 E., M. D.	Unsurveyed		.82	.82
Sec. 36, T. 4 N., R. 4 E., M. D.	Unsurveyed		1.62	1.62
Sec. 36, T. 5 N., R. 4 E., M. D.	Surveyed		5.16	5.16
Sec. 16, T. 9 N., R. 4 E., M. D.	Surveyed		6.05	6.05
Sec. 36, T. 10 N., R. 4 E., M. D.	Surveyed		160	160
Sec. 36, T. 21 N., R. 4 E., M. D.	Surveyed		240	240
Sec. 16, T. 27 N., R. 4 E., M. D.	Surveyed	640		640
Sec. 16, T. 29 N., R. 4 E., M. D.	Surveyed	16.36		16.36
Sec. 36, T. 30 N., R. 4 E., M. D.	Surveyed	40		40

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 16, T. 32 N., R. 4 E., M. D.	Surveyed	35.74		35.74
Sec. 36, T. 34 N., R. 4 E., M. D.	Surveyed	200		200
Sec. 16, T. 36 N., R. 4 E., M. D.	Surveyed		40	40
Sec. 36, T. 36 N., R. 4 E., M. D.	Surveyed		640	640
Sec. 36, T. 37 N., R. 4 E., M. D.	Surveyed		120	120
Sec. 16, T. 41 N., R. 4 E., M. D.	Surveyed	640		640
Sec. 16, T. 42 N., R. 4 E., M. D.	Surveyed	640		640
Sec. 36, T. 42 N., R. 4 E., M. D.	Surveyed	40.56		40.56
Sec. 16, T. 45 N., R. 4 E., M. D.	Surveyed		640	640
Sec. 36, T. 45 N., R. 4 E., M. D.	Surveyed		360	360
Sec. 16, T. 46 N., R. 4 E., M. D.	Surveyed		259.36	259.36
Sec. 16, T. 47 N., R. 4 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 1 N., R. 5 E., M. D.	Surveyed		3.83	3.83
Sec. 16, T. 3 N., R. 5 E., M. D.	Surveyed		80	80
Sec. 16, T. 4 N., R. 5 E., M. D.	Surveyed		250.31	250.31
Sec. 36, T. 4 N., R. 5 E., M. D.	Surveyed		640	640
Sec. 36, T. 5 N., R. 5 E., M. D.	Surveyed		280	280
Sec. 36, T. 6 N., R. 5 E., M. D.	Surveyed		.25	.25
Sec. 16, T. 8 N., R. 5 E., M. D.	Surveyed		40	40
Sec. 36, T. 8 N., R. 5 E., M. D.	Surveyed		480	480
Sec. 16, T. 19 N., R. 5 E., M. D.	Surveyed		.04	.04
Sec. 36, T. 19 N., R. 5 E., M. D.	Surveyed		18.23	18.23
Sec. 16, T. 20 N., R. 5 E., M. D.	Surveyed		480	480
Sec. 16, T. 21 N., R. 5 E., M. D.	Surveyed	54.95		54.95
Sec. 36, T. 21 N., R. 5 E., M. D.	Surveyed		240	240
Sec. 16, T. 23 N., R. 5 E., M. D.	Surveyed	15		15
Sec. 16, T. 25 N., R. 5 E., M. D.	Surveyed	40		40
Sec. 16, T. 31 N., R. 5 E., M. D.	Surveyed	.70		.70
Sec. 36, T. 31 N., R. 5 E., M. D.	Surveyed	4.80		4.80
Sec. 16, T. 32 N., R. 5 E., M. D.	Surveyed	40		40
Sec. 16, T. 33 N., R. 5 E., M. D.	Surveyed	120		120
Sec. 36, T. 33 N., R. 5 E., M. D.	Surveyed	162.48		162.48
Sec. 16, T. 34 N., R. 5 E., M. D.	Surveyed		80	80
Sec. 16, T. 35 N., R. 5 E., M. D.	Surveyed		460	460
Sec. 16, T. 36 N., R. 5 E., M. D.	Surveyed		640	640
Sec. 36, T. 36 N., R. 5 E., M. D.	Surveyed		520	520
Sec. 16, T. 39 N., R. 5 E., M. D.	Surveyed		200	200
Sec. 36, T. 39 N., R. 5 E., M. D.	Surveyed	320		320
Sec. 36, T. 42 N., R. 5 E., M. D.	Surveyed	121.44		121.44
Sec. 16, T. 45 N., R. 5 E., M. D.	Surveyed		640	640
Sec. 36, T. 45 N., R. 5 E., M. D.	Surveyed		640	640
Sec. 16, T. 2 N., R. 6 E., M. D.	Surveyed		160	160
Sec. 36, T. 4 N., R. 6 E., M. D.	Surveyed		9.87	9.87
Sec. 16, T. 18 N., R. 6 E., M. D.	Surveyed		160	160
Sec. 36, T. 18 N., R. 6 E., M. D.	Surveyed		40	40
Sec. 16, T. 20 N., R. 6 E., M. D.	Surveyed		320	320
Sec. 16, T. 25 N., R. 6 E., M. D.	Unsurveyed	640		640
Sec. 36, T. 26 N., R. 6 E., M. D.	Surveyed	.30		.30
Sec. 16, T. 29 N., R. 6 E., M. D.	Surveyed	40		40
Sec. 16, T. 31 N., R. 6 E., M. D.	Surveyed	.45		.45
Sec. 36, T. 31 N., R. 6 E., M. D.	Surveyed	160		160
Sec. 36, T. 32 N., R. 6 E., M. D.	Surveyed	320		320
Sec. 36, T. 35 N., R. 6 E., M. D.	Surveyed	14.34		14.34
Sec. 36, T. 36 N., R. 6 E., M. D.	Surveyed	640		640
Sec. 16, T. 38 N., R. 6 E., M. D.	Surveyed	280		280
Sec. 16, T. 40 N., R. 6 E., M. D.	Surveyed	40		40
Sec. 36, T. 40 N., R. 6 E., M. D.	Surveyed	40		40
Sec. 16, T. 43 N., R. 6 E., M. D.	Surveyed	640		640
Sec. 36, T. 43 N., R. 6 E., M. D.	Surveyed	640		640
Sec. 16, T. 44 N., R. 6 E., M. D.	Surveyed		480	480

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 36, T. 45 N., R. 6 E., M. D.	Surveyed		520	520
Sec. 16, T. 46 N., R. 6 E., M. D.	Surveyed		160	160
Sec. 36, T. 46 N., R. 6 E., M. D.	Surveyed		640	640
Sec. 36, T. 47 N., R. 6 E., M. D.	Surveyed		640	640
Sec. 16, T. 48 N., R. 6 E., M. D.	Surveyed		146.13	146.13
Sec. 36, T. 2 N., R. 7 E., M. D.	Surveyed		160	160
Sec. 16, T. 3 N., R. 7 E., M. D.	Surveyed		1.18	1.18
Sec. 36, T. 3 N., R. 7 E., M. D.	Surveyed		640	640
Sec. 36, T. 14 N., R. 7 E., M. D.	Surveyed		40	40
Sec. 16, T. 18 N., R. 7 E., M. D.	Surveyed		329.84	329.84
Sec. 16, T. 23 N., R. 7 E., M. D.	Surveyed	2.93		2.93
Sec. 16, T. 25 N., R. 7 E., M. D.	Unsurveyed	200		200
Sec. 16, T. 26, N., R. 7 E., M. D.	Surveyed	480		480
Sec. 16, T. 31 N., R. 7 E., M. D.	Surveyed	42.96		42.96
Sec. 36, T. 35 N., R. 7 E., M. D.	Surveyed		480	480
Sec. 36, T. 36 N., R. 7 E., M. D.	Surveyed		640	640
Sec. 36, T. 37 N., R. 7 E., M. D.	Surveyed		200	200
Sec. 16, T. 39 N., R. 7 E., M. D.	Surveyed		360	360
Sec. 16, T. 40 N., R. 7 E., M. D.	Surveyed	560		560
Sec. 16, T. 45 N., R. 7 E., M. D.	Surveyed		480	480
Sec. 16, T. 46 N., R. 7 E., M. D.	Surveyed		208.80	208.80
Sec. 36, T. 46 N., R. 7 E., M. D.	Surveyed		368.80	368.80
Sec. 16, T. 47 N., R. 7 E., M. D.	Surveyed		320	320
Sec. 36, T. 47 N., R. 7 E., M. D.	Surveyed		520	520
Sec. 16, T. 48 N., R. 7 E., M. D.	Surveyed		163.58	163.58
Sec. 36, T. 48 N., R. 7 E., M. D.	Surveyed		480	480
Sec. 36, T. 1 N., R. 8 E., M. D.	Surveyed		160	160
Sec. 16, T. 2 N., R. 8 E., M. D.	Surveyed		160	160
Sec. 36, T. 11 N., R. 8 E., M. D.	Surveyed		160	160
Sec. 16, T. 15 N., R. 8 E., M. D.	Surveyed		320	320
Sec. 36, T. 19 N., R. 8 E., M. D.	Surveyed	480		480
Sec. 36, T. 20 N., R. 8 E., M. D.	Surveyed	175.19		175.19
Sec. 16, T. 23 N., R. 8 E., M. D.	Surveyed	640		640
Sec. 36, T. 23 N., R. 8 E., M. D.	Surveyed	160		160
Sec. 36, T. 24 N., R. 8 E., M. D.	Surveyed	.07		.07
Sec. 36, T. 28 N., R. 8 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 31 N., R. 8 E., M. D.	Surveyed	40		40
Sec. 16, T. 33 N., R. 8 E., M. D.	Surveyed	13.87		13.87
Sec. 16, T. 34 N., R. 8 E., M. D.	Surveyed	360		360
Sec. 16, T. 35 N., R. 8 E., M. D.	Surveyed		640	640
Sec. 36, T. 35 N., R. 8 E., M. D.	Surveyed		640	640
Sec. 16, T. 36 N., R. 8 E., M. D.	Surveyed	640		640
Sec. 36, T. 36 N., R. 8 E., M. D.	Surveyed		640	640
Sec. 16, T. 37 N., R. 8 E., M. D.	Surveyed		640	640
Sec. 16, T. 38 N., R. 8 E., M. D.	Surveyed		640	640
Sec. 36, T. 38 N., R. 8 E., M. D.	Surveyed	400		400
Sec. 16, T. 40 N., R. 8 E., M. D.	Surveyed	120		120
Sec. 16, T. 41 N., R. 8 E., M. D.	Surveyed	640		640
Sec. 16, T. 44 N., R. 8 E., M. D.	Unsurveyed	80		80
Sec. 36, T. 44 N., R. 8 E., M. D.	Unsurveyed	40		40
Sec. 36, T. 46 N., R. 8 E., M. D.	Surveyed		640	640
Sec. 16, T. 48 N., R. 8 E., M. D.	Surveyed		73.96	73.96
Sec. 16, T. 9 N., R. 9 E., M. D.	Surveyed		120	120
Sec 16, T. 10 N., R. 9 E., M. D.	Surveyed		400	400
Sec. 36, T. 15 N., R. 9 E., M. D.	Surveyed		40	40
Sec. 36, T. 19 N., R. 9 E., M. D.	Surveyed	190.79		190.79
Sec. 36, T. 20 N., R. 9 E., M. D.	Unsurveyed	40.22		40.22
Sec. 36, T. 21 N., R. 9 E., M. D.	Surveyed	640		640
Sec. 16, T. 22 N., R. 9 E., M. D.	Surveyed	640		640
Sec. 16, T. 27 N., R. 9 E., M. D.	Surveyed	80		80

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 16, T. 30 N., R. 9 E., M. D.	Surveyed	560		560
Sec. 36, T. 32 N., R. 9 E., M. D.	Surveyed	3.18		3.18
Sec. 16, T. 35 N., R. 9 E., M. D.	Surveyed		560	560
Sec 16, T. 36 N., R. 9 E., M. D.	Surveyed		640	640
Sec 36, T. 36 N., R. 9 E., M. D.	Surveyed		560	560
Sec 16, T. 38 N., R. 9 E., M. D.	Surveyed		160	160
Sec. 36, T. 38 N., R. 9 E., M. D.	Surveyed		320	320
Sec. 36, T. 39 N., R. 9 E., M. D.	Surveyed	40		40
Sec. 36, T. 40 N., R. 9 E., M. D.	Surveyed		440	440
Sec. 16, T. 41 N., R. 9 E., M. D.	Surveyed		360	360
Sec. 36, T. 41 N., R. 9 E., M. D.	Surveyed		560	560
Sec. 16, T. 42 N., R. 9 E., M. D.	Surveyed	280		280
Sec. 36, T. 42 N., R. 9 E., M. D.	Surveyed		40	40
Sec. 36, T. 43 N., R. 9 E., M. D.	Surveyed	640		640
Sec. 16, T. 44 N., R. 9 E., M. D.	Surveyed	360		360
Sec. 16, T. 46 N., R. 9 E., M. D.	Surveyed		480	480
Sec. 36, T. 46 N., R. 9 E., M. D.	Surveyed	120		120
Sec. 36, T. 48 N., R. 9 E., M. D.	Surveyed	51		51
Sec. 36, T. 5 N., R. 10 E., M. D.	Surveyed		40	40
Sec. 16, T. 6 N., R. 10 E., M. D.	Surveyed		40	40
Sec. 16, T. 9 N., R. 10 E., M. D.	Surveyed		40	40
Sec. 36, T. 9 N., R. 10 E., M. D.	Surveyed		120.05	120.05
Sec. 16, T. 10 N., R. 10 E., M. D.	Surveyed		22.23	22.23
Sec. 16, T. 12 N., R. 10 E., M. D.	Surveyed		240	240
Sec. 36, T. 12 N., R. 10 E., M. D.	Surveyed		320	320
Sec. 16, T. 14 N., R. 10 E., M. D.	Surveyed		12	12
Sec. 36, T. 14 N., R. 10 E., M. D.	Surveyed		415.77	415.77
Sec. 16, T. 15 N., R. 10 E., M. D.	Surveyed		201.05	201.05
Sec. 36, T. 15 N., R. 10 E., M. D.	Surveyed		40	40
Sec. 36, T. 18 N., R. 10 E., M. D.	Surveyed	5.99		5.99
Sec. 16, T. 22 N., R. 10 E., M. D.	Surveyed	3.21		3.21
Sec. 36, T. 23 N., R. 10 E., M. D.	Surveyed	200		200
Sec. 16, T. 34 N., R. 10 E., M. D.	Surveyed		80	80
Sec. 16, T. 35 N., R. 10 E., M. D.	Surveyed		600	600
Sec. 36, T. 36 N., R. 10 E., M. D.	Surveyed		640	640
Sec. 36, T. 37 N., R. 10 E., M. D.	Surveyed	240		240
Sec. 36, T. 39 N., R. 10 E., M. D.	Surveyed	200		200
Sec. 16, T. 40 N., R. 10 E., M. D.	Surveyed	400		400
Sec. 36, T. 41 N., R. 10 E., M. D.	Surveyed		40	40
Sec. 16, T. 43 N., R. 10 E., M. D.	Surveyed	160		160
Sec. 36, T. 43 N., R. 10 E., M. D.	Surveyed	160		160
Sec. 36, T. 44 N., R. 10 E., M. D.	Surveyed	640		640
Sec. 16, T. 45 N., R. 10 E., M. D.	Surveyed	280		280
Sec. 36, T. 45 N., R. 10 E., M. D.	Surveyed	640		640
Sec. 16, T. 46 N., R. 10 E., M. D.	Surveyed	160		160
Sec. 36, T. 46 N., R. 10 E., M. D.	Surveyed	81.62		81.62
Sec. 16, T. 47 N., R. 10 E., M. D.	Surveyed	200		200
Sec. 36, T. 47 N., R. 10 E., M. D.	Surveyed	.50		.50
Sec. 36, T. 48 N., R. 10 E., M. D.	Surveyed	80		80
Sec. 36, T. 16 N., R. 11 E., M. D.	Surveyed	280		280
Sec. 36, T. 22 N., R. 11 E., M. D.	Unsurveyed	346.26		346.26
Sec. 36, T. 24 N., R. 11 E., M. D.	Surveyed	96.10		96.10
Sec. 16, T. 25 N., R. 11 E., M. D.	Surveyed	40		40
Sec. 36, T. 25 N., R. 11 E., M. D.	Surveyed	27		27
Sec. 36, T. 27 N., R. 11 E., M. D.	Surveyed	640		640
Sec. 36, T. 30 N., R. 11 E., M. D.	Surveyed		40	40
Sec. 16, T. 31 N., R. 11 E., M. D.	Surveyed		160	160
Sec. 16, T. 34 N., R. 11 E., M. D.	Surveyed		640	640
Sec. 36, T. 34 N., R. 11 E., M. D.	Surveyed		600	600
Sec. 36, T. 35 N., R. 11 E., M. D.	Surveyed		320.12	320.12

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 16, T. 36 N., R. 11 E., M. D.	Surveyed	------------	640	640
Sec. 36, T. 36 N., R. 11 E., M. D.	Surveyed	------------	480	480
Sec. 36, T. 39 N., R. 11 E., M. D.	Surveyed	160	------------	160
Sec. 16, T. 40 N., R. 11 E., M. D.	Surveyed	------------	640	640
Sec. 16, T. 41 N., R. 11 E., M. D.	Surveyed	------------	240	240
Sec. 36, T. 41 N., R. 11 E., M. D.	Surveyed	------------	200	200
Sec. 36, T. 45 N., R. 11 E., M. D.	Surveyed	640	------------	640
Sec. 16, T. 46 N., R. 11 E., M. D.	Surveyed	160	------------	160
Sec. 36, T. 46 N., R. 11 E., M. D.	Surveyed	120	------------	120
Sec. 36, T. 47 N., R. 11 E., M. D.	Surveyed	640	------------	640
Sec. 36, T. 7 N., R. 12 E., M. D.	Surveyed	------------	40	40
Sec. 16, T. 8 N., R. 12 E., M. D.	Surveyed	------------	40	40
Sec. 16, T. 9 N., R. 12 E., M. D.	Surveyed	------------	480	480
Sec. 16, T. 13 N., R. 12 E., M. D.	Surveyed	80	------------	80
Sec. 36, T. 13 N., R. 12 E., M. D.	Surveyed	2.22	------------	2.22
Sec. 36, T. 14 N., R. 12 E., M. D.	Surveyed	------------	80	80
Sec. 16, T. 18 N., R. 12 E., M. D.	Surveyed	80.08	------------	80.08
Sec. 36, T. 20 N., R. 12 E., M. D.	Surveyed	.05	------------	.05
Sec. 36, T. 21 N., R. 12 E., M. D.	Surveyed	.15	------------	.15
Sec. 16, T. 25 N., R. 12 E., M. D.	Surveyed	80	------------	80
Sec. 16, T. 26 N., R. 12 E., M. D.	Surveyed	40	------------	40
Sec. 36, T. 30 N., R. 12 E., M. D.	Surveyed	------------	200	200
Sec. 16, T. 32 N., R. 12 E., M. D.	Surveyed	------------	640	640
Sec. 36, T. 32 N., R. 12 E., M. D.	Surveyed	------------	640	640
Sec. 16, T. 33 N., R. 12 E., M. D.	Surveyed	------------	440	440
Sec. 16, T. 34 N., R. 12 E., M. D.	Surveyed	------------	360	360
Sec. 36, T. 34 N., R. 12 E., M. D.	Surveyed	------------	520	520
Sec. 16, T. 38 N., R. 12 E., M. D.	Surveyed	640	------------	640
Sec. 16, T. 39 N., R. 12 E., M. D.	Surveyed	------------	640	640
Sec. 36, T. 39 N., R. 12 E., M. D.	Surveyed	------------	160	160
Sec. 16, T. 40 N., R. 12 E., M. D.	Surveyed	------------	640	640
Sec. 16, T. 41 N., R. 12 E., M. D.	Surveyed	------------	640	640
Sec. 36, T. 42 N., R. 12 E., M. D.	Surveyed	------------	40	40
Sec. 16, T. 43 N., R. 12 E., M. D.	Surveyed	320	------------	320
Sec. 16, T. 46 N., R. 12 E., M. D.	Surveyed	78.06	------------	78.06
Sec. 36, T. 46 N., R. 12 E., M. D.	Surveyed	640	------------	640
Sec. 16, T. 47 N., R. 12 E., M. D.	Surveyed	------------	40	40
Sec. 16, T. 1 N., R. 13 E., M. D.	Surveyed	------------	200	200
Sec. 36, T. 2 N., R. 13 E., M. D.	Surveyed	------------	40	40
Sec. 36, T. 4 N., R. 13 E., M. D.	Surveyed	------------	130	130
Sec. 36, T. 14 N., R. 13 E., M. D.	Surveyed	------------	40	40
Sec. 16, T. 17 N., R. 13 E., M. D.	Surveyed	40	------------	40
Sec. 16, T. 19 N., R. 13 E., M. D.	Surveyed	160	------------	160
Sec. 36, T. 19 N., R. 13 E., M. D.	Surveyed	8	------------	8
Sec. 36, T. 20 N., R. 13 E., M. D.	Surveyed	120	------------	120
Sec. 16, T. 21 N., R. 13 E., M. D.	Surveyed	40	------------	40
Sec. 36, T. 25 N., R. 13 E., M. D.	Surveyed	80	------------	80
Sec. 16, T. 29 N., R. 13 E., M. D.	Surveyed	------------	640	640
Sec. 16, T. 30 N., R. 13 E., M. D.	Surveyed	------------	520	520
Sec. 16, T. 31 N., R. 13 E., M. D.	Unsurveyed	------------	640	640
Sec. 36, T. 31 N., R. 13 E., M. D.	Surveyed	------------	482.64	482.64
Sec. 16, T. 32 N., R. 13 E., M. D.	Surveyed	------------	640	640
Sec. 36, T. 32 N., R. 13 E., M. D.	Surveyed	------------	480	480
Sec. 16, T. 33 N., R. 13 E., M. D.	Surveyed	------------	640	640
Sec. 36, T. 33 N., R. 13 E., M. D.	Surveyed	------------	640	640
Sec. 16, T. 34 N., R. 13 E., M. D.	Surveyed	------------	560	560
Sec. 36, T. 34 N., R. 13 E., M. D.	Surveyed	------------	640	640
Sec. 36, T. 36 N., R. 13 E., M. D.	Surveyed	------------	40	40
Sec. 16, T. 38 N., R. 13 E., M. D.	Surveyed	------------	560	560
Sec. 36, T. 38 N., R. 13 E., M. D.	Surveyed	------------	3.06	3.06

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 16, T. 40 N., R. 13 E., M. D.	Surveyed		640	640
Sec. 36, T. 40 N., R. 13 E., M. D.	Surveyed		640	640
Sec. 16, T. 43 N., R. 13 E., M. D.	Surveyed	560		560
Sec. 36, T. 43 N., R. 13 E., M. D.	Surveyed		40	40
Sec. 16, T. 44 N., R. 13 E., M. D.	Surveyed		640	640
Sec. 36, T. 44 N., R. 13 E., M. D.	Surveyed		240	240
Sec. 16, T. 3 N., R. 14 E., M. D.	Surveyed		1.12	1.12
Sec. 36, T. 3 N., R. 14 E., M. D.	Surveyed		104.86	104.86
Sec. 36, T. 4 N., R. 14 E., M. D.	Surveyed		200	200
Sec. 16, T. 14 N., R. 14 E., M. D.	Surveyed	240		240
Sec. 36, T. 18 N., R. 14 E., M. D.	Surveyed	448.35		448.35
Sec. 16, T. 22 N., R. 14 E., M. D.	Surveyed	160		160
Sec. 16, T. 25 N., R. 14 E., M. D.	Surveyed	528.78		528.78
Sec. 36, T. 25 N., R. 14 E., M. D.	Surveyed	40		40
Sec. 36, T. 26 N., R. 14 E., M. D.	Surveyed	640		640
Sec. 36, T. 29 N., R. 14 E., M. D.	Surveyed		40	40
Sec. 16, T. 30 N., R. 14 E., M. D.	Surveyed		480	480
Sec. 36, T. 30 N., R. 14 E., M. D.	Surveyed		480	480
Sec. 16, T. 31 N., R. 14 E., M. D.	Surveyed		640	640
Sec. 36, T. 31 N., R. 14 E., M. D.	Surveyed		560	560
Sec. 16, T. 32 N., R. 14 E., M. D.	Surveyed		640	640
Sec. 36, T. 32 N., R. 14 E., M. D.	Surveyed		520	520
Sec. 16, T. 33 N., R. 14 E., M. D.	Surveyed		640	640
Sec. 36, T. 33 N., R. 14 E., M. D.	Surveyed		640	640
Sec. 16, T. 37 N., R. 14 E., M. D.	Surveyed		320	320
Sec. 16, T. 38 N., R. 14 E., M. D.	Surveyed		320	320
Sec. 36, T. 38 N., R. 14 E., M. D.	Surveyed		80	80
Sec. 16, T. 39 N., R. 14 E., M. D.	Surveyed	80		80
Sec. 36, T. 41 N., R. 14 E., M. D.	Surveyed	440		440
Sec. 36, T. 43 N., R. 14 E., M. D.	Surveyed	336.72		336.72
Sec. 36, T. 3 N., R. 15 E., M. D.	Surveyed		31.37	31.37
Sec. 16, T. 4 N., R. 15 E., M. D.	Surveyed		160.04	160.04
Sec. 36, T. 13 N., R. 15 E., M. D.	Surveyed		160	160
Sec. 16, T. 14 N., R. 15 E., M. D.	Surveyed	80		80
Sec. 36, T. 14 N., R. 15 E., M. D.	Surveyed		120.04	120.04
Sec. 16, T. 15 N., R. 15 E., M. D.	Surveyed	80		80
Sec. 36, T. 15 N., R. 15 E., M. D.	Surveyed		6.06	6.06
Sec. 16, T. 16 N., R. 15 E., M. D.	Surveyed	81.61		81.61
Sec. 16, T. 17 N., R. 15 E., M. D.	Surveyed		161.77	161.77
Sec. 16, T. 18 N., R. 15 E., M. D.	Surveyed	1.94		1.94
Sec. 16, T. 19 N., R. 15 E., M. D.	Surveyed	80		80
Sec. 16, T. 21 N., R. 15 E., M. D.	Surveyed		200	200
Sec. 16, T. 23 N., R. 15 E., M. D.	Surveyed		80	80
Sec. 36, T. 24 N., R. 15 E., M. D.	Surveyed	320.38		320.38
Sec. 36, T. 26 N., R. 15 E., M. D.	Surveyed	440		440
Sec. 36, T. 27 N., R. 15 E., M. D.	Surveyed		1	1
Sec. 16, T. 30 N., R. 15 E., M. D.	Surveyed		520	520
Sec. 36, T. 30 N., R. 15 E., M. D.	Surveyed		480	480
Sec. 36, T. 31 N., R. 15 E., M. D.	Surveyed		640	640
Sec. 16, T. 32 N., R. 15 E., M. D.	Surveyed		240	240
Sec. 36, T. 32 N., R. 15 E., M. D.	Surveyed		640	640
Sec. 16, T. 33 N., R. 15 E., M. D.	Surveyed		640	640
Sec. 36, T. 33 N., R. 15 E., M. D.	Surveyed		640	640
Sec. 16, T. 36 N., R. 15 E., M. D.	Surveyed		80	80
Sec. 36, T. 36 N., R. 15 E., M. D.	Surveyed		380	380
Sec. 36, T. 37 N., R. 15 E., M. D.	Surveyed		640	640
Sec. 36, T. 38 N., R. 15 E., M. D.	Surveyed	320		320
Sec. 16, T. 40 N., R. 15 E., M. D.	Surveyed	360		360
Sec. 36, T. 40 N., R. 15 E., M. D.	Unsurveyed	360		360
Sec. 16, T. 42 N., R. 15 E., M. D.	Surveyed	80		80

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 36, T. 43 N., R. 15 E., M. D.----	Surveyed ----	------------	40	40
Sec. 16, T. 44 N., R. 15 E., M. D.----	Surveyed ----	80	------------	80
Sec. 36, T. 44 N., R. 15 E., M. D.----	Surveyed ----	------------	80	80
Sec. 36, T. 45 N., R. 15 E., M. D.----	Surveyed ----	------------	320	320
Sec. 16, T. 46 N., R. 15 E., M. D.----	Surveyed ----	360	------------	360
Sec. 16, T. 47 N., R. 15 E., M. D.----	Surveyed ----	80	------------	80
Sec. 36, T. 47 N., R. 15 E., M. D.----	Surveyed ----	------------	80	80
Sec. 36, T. 1 N., R. 16 E., M. D.------	Surveyed ----	160	------------	160
Sec. 36, T. 2 N., R. 16 E., M. D.------	Surveyed ----	18.09	------------	18.09
Sec. 36, T. 8 N., R. 16 E., M. D.------	Surveyed ----	160	------------	160
Sec. 36, T. 10 N., R. 16 E., M. D.----	Surveyed ----	640	------------	640
Sec. 16, T. 11 N., R. 16 E., M. D.----	Surveyed ----	40	------------	40
Sec. 36, T. 14 N., R. 16 E., M. D.----	Surveyed ----	80	------------	80
Sec. 16, T. 17 N., R. 16 E., M. D.----	Surveyed ----	80	------------	80
Sec. 36, T. 18 N., R. 16 E., M. D.----	Surveyed ----	------------	320	320
Sec. 36, T. 21 N., R. 16 E., M. D.----	Surveyed ----	8.65	------------	8.65
Sec. 16, T. 22 N., R. 16 E., M. D.----	Surveyed ----	------------	320	320
Sec. 36, T. 23 N., R. 16 E., M. D.----	Surveyed ----	------------	80	80
Sec. 36, T. 25 N., R. 16 E., M. D.----	Surveyed ----	520	------------	520
Sec. 16, T. 29 N., R. 16 E., M. D.----	Surveyed ----	------------	320	320
Sec. 36, T. 29 N., R. 16 E., M. D.----	Surveyed ----	------------	640	640
Sec. 16, T. 30 N., R. 16 E., M. D.----	Surveyed ----	------------	640	640
Sec. 36, T. 30 N., R. 16 E., M. D.----	Surveyed ----	------------	640	640
Sec. 16, T. 31 N., R. 16 E., M. D.----	Surveyed ----	------------	640	640
Sec. 36, T. 31 N., R. 16 E., M. D.----	Surveyed ----	------------	320	320
Sec. 16, T. 32 N., R. 16 E., M. D.----	Surveyed ----	------------	520	520
Sec. 36, T. 32 N., R. 16 E., M. D.----	Surveyed ----	------------	640	640
Sec. 16, T. 34 N., R. 16 E., M. D.----	Surveyed ----	------------	640	640
Sec. 36, T. 34 N., R. 16 E., M. D.----	Surveyed ----	------------	560	560
Sec. 16, T. 36 N., R. 16 E., M. D.----	Surveyed ----	------------	640	640
Sec. 36, T. 36 N., R. 16 E., M. D.----	Surveyed ----	------------	240	240
Sec. 16, T. 37 N., R. 16 E., M. D.----	Surveyed ----	------------	240	240
Sec. 36, T. 37 N., R. 16 E., M. D.----	Surveyed ----	------------	400	400
Sec. 36, T. 38 N., R. 16 E., M. D.----	Surveyed ----	------------	640	640
Sec. 16, T. 39 N., R. 16 E., M. D.----	Surveyed ----	80	------------	80
Sec. 36, T. 39 N., R. 16 E., M. D.----	Surveyed ----	------------	160	160
Sec. 16, T. 40 N., R. 16 E., M. D.----	Surveyed ----	640	------------	640
Sec. 16, T. 41 N., R. 16 E., M. D.----	Surveyed ----	------------	160	160
Sec. 36, T. 47 N., R. 16 E., M. D.----	Surveyed ----	------------	40	40
Sec. 16, T. 48 N., R. 16 E., M. D.----	Unsurveyed--	------------	640	640
Sec. 36, T. 48 N., R. 16 E., M. D.----	Unsurveyed--	------------	640	640
Sec. 36, T. 1 N., R. 17 E., M. D.------	Surveyed ----	240	------------	240
Sec. 36, T. 2 N., R. 17 E., M. D.------	Surveyed ----	320	------------	320
Sec. 16, T. 7 N., R. 17 E., M. D.------	Surveyed ----	40	------------	40
Sec. 16, T. 16 N., R. 17 E., M. D.----	Surveyed ----	640	------------	640
Sec. 16, T. 20 N., R. 17 E., M. D.----	Surveyed ----	------------	400	400
Sec. 16, T. 21 N., R. 17 E., M. D.----	Surveyed ----	------------	560	560
Sec. 16, T. 22 N., R. 17 E., M. D.----	Surveyed ----	------------	480	480
Sec. 36, T. 22 N., R. 17 E., M. D.----	Surveyed ----	------------	701.64	701.64
Sec. 36, T. 23 N., R. 17 E., M. D.----	Surveyed ----	------------	597.04	597.04
Sec. 16, T. 24 N., R. 17 E., M. D.----	Surveyed ----	320	------------	320
Sec. 16, T. 25 N., R. 17 E., M. D.----	Surveyed ----	------------	80	80
Sec. 16, T. 26 N., R. 17 E., M. D.----	Surveyed ----	------------	40	40
Sec. 16, T. 28 N., R. 17 E., M. D.----	Surveyed ----	------------	640	640
Sec. 36, T. 28 N., R. 17 E., M. D.----	Surveyed ----	------------	240	240
Sec. 16, T. 29 N., R. 17 E., M. D.----	Surveyed ----	------------	640	640
Sec. 36, T. 29 N., R. 17 E., M. D.----	Surveyed ----	------------	719.80	719.80
Sec. 16, T. 30 N., R. 17 E., M. D.----	Surveyed ----	------------	640	640
Sec. 36, T. 30 N., R. 17 E., M. D.----	Surveyed ----	------------	822.28	822.28
Sec. 16, T. 31 N., R. 17 E., M. D.----	Surveyed ----	------------	640	640

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 16, T. 32 N., R. 17 E., M. D.	Surveyed		640	640
Sec. 16, T. 33 N., R. 17 E., M. D.	Surveyed		640	640
Sec. 16, T. 34 N., R. 17 E., M. D.	Surveyed		640	640
Sec. 16, T. 37 N., R. 17 E., M. D.	Surveyed		640	640
Sec. 16, T. 40 N., R. 17 E., M. D.	Surveyed		640	640
Sec. 16, T. 41 N., R. 17 E., M. D.	Surveyed		160	160
Sec. 16, T. 42 N., R. 17 E., M. D.	Surveyed		640	640
Sec. 16, T. 43 N., R. 17 E., M. D.	Surveyed		640	640
Sec. 16, T. 44 N., R. 17 E., M. D.	Surveyed		640	640
Sec. 16, T. 45 N., R. 17 E., M. D.	Surveyed		640	640
Sec. 16, T. 46 N., R. 17 E., M. D.	Surveyed		640	640
Sec. 16, T. 47 N., R. 17 E., M. D.	Surveyed		38.49	38.49
Sec. 36, T. 1 N., R. 18 E., M. D.	Surveyed	600		600
Sec. 16, T. 5 N., R. 18 E., M. D.	Unsurveyed	5.29		5.29
Sec. 36, T. 7 N., R. 18 E., M. D.	Surveyed	39.42		39.42
Sec. 36, T. 12 N., R. 18 E., M. D.	Surveyed	306.35		306.35
Sec. 36, T. 24 N., R. 18 E., M. D.	Surveyed		320	320
Sec. 36, T. 5 N., R. 19 E., M. D.	Unsurveyed	40		40
Sec. 36, T. 7 N., R. 19 E., M. D.	Surveyed	5.72		5.72
Sec. 36, T. 9 N., R. 19 E., M. D.	Surveyed	42.45		42.45
Sec. 16, T. 11 N., R. 19 E., M. D.	Surveyed	320		320
Sec. 36, T. 2 N., R. 20 E., M. D.	Surveyed	40		40
Sec. 16, T. 4 N., R. 20 E., M. D.	Unsurveyed	360		360
Sec. 36, T. 4 N., R. 20 E., M. D.	Unsurveyed	40.01		40.01
Sec. 36, T. 6 N., R. 20 E., M. D.	Surveyed	12		12
Sec. 36, T. 7 N., R. 20 E., M. D.	Surveyed	.77		.77
Sec. 36, T. 8 N., R. 20 E., M. D.	Surveyed	213.89		213.89
Sec. 36, T. 10 N., R. 20 E., M. D.	Surveyed	41.15		41.15
Sec. 16, T. 11 N., R. 20 E., M. D.	Surveyed		351.74	351.74
Sec. 36, T. 11 N., R. 20 E., M. D.	Surveyed	513.12		513.12
Sec. 36, T. 1 N., R. 21 E., M. D.	Surveyed	1.60		1.60
Sec. 36, T. 2 N., R. 21 E., M. D.	Surveyed	9.49		9.49
Sec. 16, T. 3 N., R. 21 E., M. D.	Unsurveyed	360		360
Sec. 36, T. 6 N., R. 21 E., M. D.	Unsurveyed	14.30		14.30
Sec. 16, T. 11 N., R. 21 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 11 N., R. 21 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 1 N., R. 22 E., M. D.	Surveyed		1.14	1.14
Sec. 36, T. 2 N., R. 22 E., M. D.	Surveyed	41.64		41.64
Sec. 16, T. 7 N., R. 22 E., M. D.	Surveyed	320		320
Sec. 36, T. 8 N., R. 22 E., M. D.	Surveyed		80	80
Sec. 16, T. 9 N., R. 22 E., M. D.	Surveyed		400	400
Sec. 36, T. 2 N., R. 23 E., M. D.	Surveyed	1.94		1.94
Sec. 16, T. 5 N., R. 23 E., M. D.	Surveyed	30		30
Sec. 16, T. 7 N., R. 23 E., M. D.	Surveyed	29.58		29.58
Sec. 36, T. 7 N., R. 23 E., M. D.	Surveyed	370.42		370.42
Sec. 36, T. 8 N., R. 23 E., M. D.	Surveyed	640		640
Sec. 36, T. 1 N., R. 24 E., M. D.	Surveyed	1.09		1.09
Sec. 16, T. 4 N., R. 24 E., M. D.	Surveyed	160		160
Sec. 36, T. 4 N., R. 24 E., M. D.	Surveyed		160	160
Sec. 16, T. 7 N., R. 24 E., M. D.	Surveyed	640		640
Sec. 36, T. 8 N., R. 24 E., M. D.	Unsurveyed	200		200
Sec. 36, T. 7 N., R. 24 E., M. D.	Surveyed	640		640
Sec. 16, T. 8 N., R. 24 E., M. D.	Unsurveyed	212.58		212.58
Sec. 36, T. 1 N., R. 25 E., M. D.	Surveyed	320		320
Sec. 16, T. 3 N., R. 25 E., M. D.	Surveyed		600	600
Sec. 36, T. 3 N., R. 25 E., M. D.	Surveyed		80	80
Sec. 16, T. 4 N., R. 25 E., M. D.	Surveyed		240	240
Sec. 36, T. 4 N., R. 25 E., M. D.	Surveyed	640		640
Sec. 36, T. 5 N., R. 25 E., M. D.	Surveyed		640	640
Sec. 36, T. 6 N., R. 25 E., M. D.	Surveyed	640		640

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 16, T. 1 N., R. 26 E., M. D.	Surveyed		320	320
Sec. 16, T. 3 N., R. 26 E., M. D.	Surveyed		480	480
Sec. 16, T. 4 N., R. 26 E., M. D.	Surveyed		640	640
Sec. 36, T. 4 N., R. 26 E., M. D.	Surveyed		640	640
Sec. 16, T. 5 N., R. 26 E., M. D.	Surveyed		640	640
Sec. 36, T. 5 N., R. 26 E., M. D.	Surveyed		480	480
Sec. 16, T. 6 N., R. 26 E., M. D.	Surveyed	640		640
Sec. 36, T. 6 N., R. 26 E., M. D.	Surveyed		600	600
Sec. 16, T. 3 N., R. 27 E., M. D.	Surveyed		320	320
Sec. 36, T. 4 N., R. 27 E., M. D.	Surveyed		640	640
Sec. 16, T. 5 N., R. 27 E., M. D.	Surveyed		640	640
Sec. 36, T. 5 N., R. 27 E., M. D.	Surveyed		440	440
Sec. 36, T. 1 N., R. 28 E., M. D.	Surveyed	640		640
Sec. 36, T. 2 N., R. 28 E., M. D.	Surveyed		640	640
Sec. 16, T. 3 N., R. 28 E., M. D.	Surveyed		480	480
Sec. 36, T. 3 N., R. 28 E., M. D.	Surveyed		160	160
Sec. 16, T. 4 N., R. 28 E., M. D.	Surveyed		640	640
Sec. 36, T. 4 N., R. 28 E., M. D.	Surveyed		640	640
Sec. 16, T. 1 N., R. 29 E., M. D.	Unsurveyed		23.49	23.49
Sec. 36, T. 1 N., R. 29 E., M. D.	Unsurveyed		160	160
Sec. 16, T. 2 N., R. 29 E., M. D.	Surveyed	640		640
Sec. 36, T. 2 N., R. 29 E., M. D.	Surveyed	640		640
Sec. 16, T. 3 N., R. 29 E., M. D.	Surveyed	640		640
Sec. 36, T. 3 N., R. 29 E., M. D.	Surveyed	320		320
Sec. 36, T. 1 N., R. 30 E., M. D.	Surveyed		640	640
Sec. 16, T. 2 N., R. 30 E., M. D.	Surveyed	480		480
Sec. 36, T. 2 N., R. 30 E., M. D.	Surveyed	640		640
Sec. 16, T. 1 N., R. 31 E., M. D.	Surveyed	200		200
Sec. 36, T. 1 N., R. 31 E., M. D.	Surveyed	640		640
Sec. 16, T. 2 N., R. 1 W., M. D.	Surveyed		10	10
Sec. 16, T. 3 N., R. 1 W., M. D.	Surveyed		600	600
Sec. 16, T. 4 N., R. 1 W., M. D.	Surveyed		66.02	66.02
Sec. 16, T. 14 N., R. 1 W., M. D.	Surveyed		640	640
Sec. 16, T. 15 N., R. 1 W., M. D.	Surveyed		240	240
Sec. 36, T. 17 N., R. 1 W., M. D.	Surveyed		40	40
Sec. 36, T. 18 N., R. 1 W., M. D.	Surveyed		320	320
Sec. 16, T. 22 N., R. 1 W., M. D.	Surveyed		480	480
Sec. 16, T. 23 N., R. 1 W., M. D.	Surveyed		.18	.18
Sec. 36, T. 23 N., R. 1 W., M. D.	Surveyed		480	480
Sec. 36, T. 27 N., R. 1 W., M. D.	Surveyed		80	80
Sec. 36, T. 34 N., R. 1 W., M. D.	Surveyed		40	40
Sec. 16, T. 35 N., R. 1 W., M. D.	Surveyed		466.92	466.92
Sec. 16, T. 36 N., R. 1 W., M. D.	Surveyed		80	80
Sec. 16, T. 38 N., R. 1 W., M. D.	Surveyed	640		640
Sec. 36, T. 42 N., R. 1 W., M. D.	Surveyed		240	240
Sec. 16, T. 43 N., R. 1 W., M. D.	Surveyed		160	160
Sec. 36, T. 43 N., R. 1 W., M. D.	Surveyed	160		160
Sec. 16, T. 44 N., R. 1 W., M. D.	Surveyed		160	160
Sec. 16, T. 45 N., R. 1 W., M. D.	Surveyed		160	160
Sec. 36, T. 45 N., R. 1 W., M. D.	Surveyed		360	360
Sec. 36, T. 5 N., R. 2 W., M. D.	Surveyed		320	320
Sec. 16, T. 6 N., R. 2 W., M. D.	Surveyed		120	120
Sec. 16, T. 7 N., R. 2 W., M. D.	Surveyed		120	120
Sec. 16, T. 24 N., R. 2 W., M. D.	Surveyed		137.50	137.50
Sec. 16, T. 29 N., R. 2 W., M. D.	Surveyed		320	320
Sec. 16, T. 32 N., R. 2 W., M. D.	Surveyed		440	440
Sec. 16, T. 33 N., R. 2 W., M. D.	Surveyed		146.21	146.21
Sec. 16, T. 34 N., R. 2 W., M. D.	Surveyed	80		80
Sec. 36, T. 35 N., R. 2 W., M. D.	Surveyed	170.80		170.80
Sec. 36, T. 36 N., R. 2 W., M. D.	Surveyed	80		80

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 16, T. 37 N., R. 2 W., M. D.	Surveyed	81.10		81.10
Sec 36, T. 38 N., R. 2 W., M. D.	Surveyed	40		40
Sec. 16, T. 42 N., R. 2 W., M. D.	Surveyed	80		80
Sec. 36, T. 42 N., R. 2 W., M. D.	Surveyed	80.85		80.85
Sec. 36, T. 8 N., R. 3 W., M. D.	Surveyed		200	200
Sec. 16, T. 19 N., R. 3 W., M. D.	Surveyed		480	480
Sec. 16, T. 33 N., R. 3 W., M. D.	Surveyed		640	640
Sec. 36, T. 34 N., R. 3 W., M. D.	Surveyed		600	600
Sec. 36, T. 35 N., R. 3 W., M. D.	Surveyed	560		560
Sec. 16, T. 37 N., R. 3 W., M. D.	Surveyed	80		80
Sec. 36, T. 37 N., R. 3 W., M. D.	Surveyed	200		200
Sec. 36, T. 41 N., R. 3 W., M. D.	Surveyed	320		320
Sec. 16, T. 42 N., R. 3 W., M. D.	Surveyed	160		160
Sec. 16, T. 45 N., R. 3 W., M. D.	Surveyed		360	360
Sec. 16, T. 46 N., R. 3 W., M. D.	Surveyed	223.88		223.88
Sec. 36, T. 46 N., R. 3 W., M. D.	Surveyed		40	40
Sec. 36, T. 48 N., R. 3 W., M. D.	Surveyed		320	320
Sec. 16, T. 3 N., R. 4 W., M. D.	Surveyed		.76	.76
Sec. 16, T. 9 N., R. 4 W., M. D.	Surveyed		560	560
Sec. 36, T. 10 N., R. 4 W., M. D.	Surveyed		10.39	10.39
Sec. 16, T. 11 N., R. 4 W., M. D.	Surveyed		80	80
Sec. 36, T. 12 N., R. 4 W., M. D.	Surveyed		400	400
Sec. 16, T. 29 N., R. 4 W., M. D.	Surveyed		160	160
Sec. 16, T. 33 N., R. 4 W., M. D.	Surveyed		120	120
Sec. 16, T. 34 N., R. 4 W., M. D.	Surveyed		640	640
Sec. 16, T. 35 N., R. 4 W., M. D.	Surveyed		640	640
Sec. 36, T. 35 N., R. 4 W., M. D.	Surveyed		320	320
Sec. 16, T. 36 N., R. 4 W., M. D.	Surveyed		120	120
Sec. 36, T. 30 N., R. 4 W., M. D.	Surveyed		560	560
Sec. 36, T. 38 N., R. 4 W., M. D.	Surveyed	640		640
Sec. 36, T. 41 N., R. 4 W., M. D.	Surveyed	320		320
Sec. 36, T. 42 N., R. 4 W., M. D.	Surveyed	120		120
Sec. 36, T. 43 N., R. 4 W., M. D.	Surveyed	160		160
Sec. 16, T. 44 N., R. 4 W., M. D.	Surveyed		80	80
Sec. 36, T. 45 N., R. 4 W., M. D.	Surveyed		640	640
Sec. 36, T. 46 N., R. 4 W., M. D.	Surveyed		80	80
Sec. 36, T. 4 N., R. 5 W., M. D.	Surveyed		5.34	5.34
Sec. 16, T. 11 N., R. 5 W., M. D.	Surveyed		480	480
Sec. 36, T. 11 N., R. 5 W., M. D.	Surveyed		80.98	80.98
Sec. 16, T. 12 N., R. 5 W., M. D.	Surveyed		160	160
Sec. 16, T. 13 N., R. 5 W., M. D.	Surveyed		240	240
Sec. 36, T. 13 N., R. 5 W., M. D.	Surveyed		160	160
Sec. 16, T. 29 N., R. 5 W., M. D.	Surveyed		320	320
Sec. 36, T. 33 N., R. 5 W., M. D.	Surveyed		440	440
Sec. 36, T. 35 N., R. 5 W., M. D.	Surveyed		320	320
Sec. 16, T. 36 N., R. 5 W., M. D.	Surveyed		240	240
Sec. 36, T. 36 N., R. 5 W., M. D.	Surveyed		320	320
Sec. 36, T. 37 N., R. 5 W., M. D.	Surveyed		80	80
Sec. 36, T. 39 N., R. 5 W., M. D.	Surveyed	80		80
Sec. 16, T. 47 N., R. 5 W., M. D.	Surveyed		600	600
Sec. 16, T. 48 N., R. 5 W., M. D.	Surveyed		.10	.10
Sec. 16, T. 9 N., R. 6 W., M. D.	Surveyed		480	480
Sec. 36, T. 11 N., R. 6 W., M. D.	Surveyed		640	640
Sec. 16, T. 16 N., R. 6 W., M. D.	Surveyed		480	480
Sec. 36, T. 19 N., R. 6 W., M. D.	Surveyed		125.67	125.67
Sec. 16, T. 32 N., R. 6 W., M. D.	Surveyed		160	160
Sec. 36, T. 32 N., R. 6 W., M. D.	Surveyed		31.68	31.68
Sec. 16, T. 33 N., R. 6 W., M. D.	Surveyed		520	520
Sec. 16, T. 35 N., R. 6 W., M. D.	Surveyed	40		40
Sec. 36, T. 35 N., R. 6 W., M. D.	Surveyed		320	320

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 16, T. 37 N., R. 6 W., M. D.	Surveyed	200		200
Sec. 16, T. 39 N., R. 6 W., M. D.	Surveyed	81.70		81.70
Sec. 36, T. 39 N., R. 6 W., M. D.	Surveyed	80		80
Sec. 16, T. 40 N., R. 6 W., M. D.	Surveyed	120		120
Sec. 36, T. 40 N., R. 6 W., M. D.	Surveyed	19.80		19.80
Sec. 16, T. 41 N., R. 6 W., M. D.	Surveyed	320		320
Sec. 36, T. 41 N., R. 6 W., M. D.	Surveyed	160		160
Sec. 16, T. 44 N., R. 6 W., M. D.	Surveyed		320	320
Sec. 16, T. 48 N., R. 6 W., M. D.	Surveyed	227.68		227.68
Sec. 16, T. 14 N., R. 7 W., M. D.	Surveyed		320	320
Sec. 16, T. 15 N., R. 7 W., M. D.	Surveyed		640	640
Sec. 36, T. 15 N., R. 7 W., M. D.	Surveyed		640	640
Sec. 36, T. 16 N., R. 7 W., M. D.	Surveyed	146.52		146.52
Sec. 36, T. 17 N., R. 7 W., M. D.	Surveyed	640		640
Sec. 36, T. 19 N., R. 7 W., M. D.	Surveyed	240		240
Sec. 16, T. 22 N., R. 7 W., M. D.	Surveyed	520		520
Sec. 16, T. 24 N., R. 7 W., M. D.	Surveyed		640	640
Sec. 16, T. 25 N., R. 7 W., M. D.	Surveyed		640	640
Sec. 36, T. 25 N., R. 7 W., M. D.	Surveyed		240	240
Sec. 36, T. 26 N., R. 7 W., M. D.	Surveyed		120	120
Sec. 36, T. 33 N., R. 7 W., M. D.	Surveyed		160	160
Sec. 36, T. 34 N., R. 7 W., M. D.	Surveyed		480	480
Sec. 16, T. 35 N., R. 7 W., M. D.	Surveyed	160		160
Sec. 36, T. 35 N., R. 7 W., M. D.	Surveyed		640	640
Sec. 36, T. 36 N., R. 7 W., M. D.	Surveyed	480		480
Sec. 36, T. 38 N., R. 7 W., M. D.	Surveyed	120		120
Sec. 16, T. 39 N., R. 7 W., M. D.	Surveyed	160		160
Sec. 36, T. 39 N., R. 7 W., M. D.	Surveyed	120		120
Sec. 16, T. 40 N., R. 7 W., M. D.	Surveyed	80		80
Sec. 16, T. 41 N., R. 7 W., M. D.	Surveyed		320	320
Sec. 36, T. 41 N., R. 7 W., M. D.	Surveyed	260		260
Sec. 16, T. 42 N., R. 7 W., M. D.	Surveyed		240	240
Sec. 16, T. 43 N., R. 7 W., M. D.	Surveyed		200	200
Sec. 16, T. 44 N., R. 7 W., M. D.	Surveyed		80	80
Sec. 36, T. 44 N., R. 7 W., M. D.	Surveyed		120	120
Sec. 16, T. 45 N., R. 7 W., M. D.	Surveyed		611.68	611.68
Sec. 36, T. 46 N., R. 7 W., M. D.	Surveyed		240	240
Sec. 36, T. 47 N., R. 7 W., M. D.	Surveyed	400		400
Sec. 16, T. 1 N., R. 8 W., M. D.	Unsurveyed		40	40
Sec. 16, T. 11 N., R. 8 W., M. D.	Surveyed		160	160
Sec. 16, T. 12 N., R. 8 W., M. D.	Surveyed		160	160
Sec. 36, T. 12 N., R. 8 W., M. D.	Surveyed		80	80
Sec. 16, T. 15 N., R. 8 W., M. D.	Surveyed	575.14		575.14
Sec. 36, T. 15 N., R. 8 W., M. D.	Surveyed		163.73	163.73
Sec. 16, T. 16 N., R. 8 W., M. D.	Surveyed	360		360
Sec. 36, T. 16 N., R. 8 W., M. D.	Surveyed		440	440
Sec. 36, T. 17 N., R. 8 W., M. D.	Surveyed	245.81		245.81
Sec. 16, T. 18 N., R. 8 W., M. D.	Surveyed	440		440
Sec. 16, T. 19 N., R. 8 W., M. D.	Surveyed	480		480
Sec. 16, T. 22 N., R. 8 W., M. D.	Surveyed	320		320
Sec. 16, T. 27 N., R. 8 W., M. D.	Surveyed		640	640
Sec. 36, T. 27 N., R. 8 W., M. D.	Surveyed		640	640
Sec. 36, T. 28 N., R. 8 W., M. D.	Surveyed		320	320
Sec. 16, T. 29 N., R. 8 W., M. D.	Surveyed		160	160
Sec. 36, T. 29 N., R. 8 W., M. D.	Surveyed		48.17	48.17
Sec. 16, T. 30 N., R. 8 W., M. D.	Surveyed		640	640
Sec. 36, T. 33 N., R. 8 W., M. D.	Surveyed		80	80
Sec. 16, T. 34 N., R. 8 W., M. D.	Surveyed	58.66		58.66
Sec. 36, T. 34 N., R. 8 W., M. D.	Surveyed		480	480
Sec. 36, T. 35 N., R. 8 W., M. D.	Surveyed	.21		.21

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 16, T. 37 N., R. 8 W., M. D.	Surveyed	640		640
Sec. 36, T. 37 N., R. 8 W., M. D.	Surveyed	229.69		229.69
Sec. 16, T. 38 N., R. 8 W., M. D.	Surveyed	105.61		105.61
Sec. 36, T. 39 N., R. 8 W., M. D.	Surveyed	161.50		161.50
Sec. 36, T. 40 N., R. 8 W., M. D.	Surveyed	160		160
Sec. 36, T. 41 N., R. 8 W., M. D.	Surveyed		160	160
Sec. 36, T. 42 N., R. 8 W., M. D.	Surveyed		640	640
Sec. 16, T. 45 N., R. 8 W., M. D.	Surveyed	240		240
Sec. 36, T. 47 N., R. 8 W., M. D.	Surveyed	520		520
Sec. 16, T. 6 N., R. 9 W., M. D.	Surveyed		480	480
Sec. 16, T. 12 N., R. 9 W., M. D.	Surveyed		640	640
Sec. 16, T. 16 N., R. 9 W., M. D.	Surveyed	1.05		1.05
Sec. 36, T. 16 N., R. 9 W., M. D.	Surveyed	40		40
Sec. 36, T. 17 N., R. 9 W., M. D.	Surveyed	74.39		74.39
Sec. 16, T. 19 N., R. 9 W., M. D.	Surveyed	480		480
Sec. 36, T. 21 N., R. 9 W., M. D.	Surveyed	440		440
Sec. 16, T. 25 N., R. 9 W., M. D.	Surveyed	640		640
Sec. 36, T. 26 N., R. 9 W., M. D.	Surveyed	560		560
Sec. 36, T. 28 N., R. 9 W., M. D.	Surveyed		480	480
Sec. 16, T. 29 N., R. 9 W., M. D.	Surveyed		280	280
Sec. 36, T. 29 N., R. 9 W., M. D.	Surveyed		320	320
Sec. 16, T. 30 N., R. 9 W., M. D.	Surveyed		200	200
Sec. 16, T. 32 N., R. 9 W., M. D.	Surveyed		640	640
Sec. 36, T. 32 N., R. 9 W., M. D.	Surveyed		640	640
Sec. 36, T. 33 N., R. 9 W., M. D.	Surveyed		120	120
Sec. 16, T. 34 N., R. 9 W., M. D.	Surveyed	80		80
Sec. 36, T. 34 N., R. 9 W., M. D.	Surveyed		160	160
Sec. 16, T. 36 N., R. 9 W., M. D.	Surveyed	120.54		120.54
Sec. 36, T. 36 N., R. 9 W., M. D.	Surveyed	240		240
Sec. 36, T. 37 N., R. 9 W., M. D.	Surveyed	261.38		261.38
Sec. 16, T. 38 N., R. 9 W., M. D.	Surveyed	80		80
Sec. 36, T. 38 N., R. 9 W., M. D.	Surveyed	216.38		216.38
Sec. 36, T. 39 N., R. 9 W., M. D.	Surveyed	80		80
Sec. 16, T. 40 N., R. 9 W., M. D.	Surveyed	480		480
Sec. 36, T. 40 N., R. 9 W., M. D.	Surveyed	203.72		203.72
Sec. 16, T. 42 N., R. 9 W., M. D.	Surveyed		80	80
Sec. 16, T. 46 N., R. 9 W., M. D.	Surveyed	2.64		2.64
Sec. 36, T. 46 N., R. 9 W., M. D.	Surveyed	640		640
Sec. 36, T. 48 N., R. 9 W., M. D.	Surveyed	320		320
Sec. 16, T. 7 N., R. 10 W., M. D.	Surveyed		147.22	147.22
Sec. 16, T. 12 N., R. 10 W., M. D.	Surveyed		160	160
Sec. 16, T. 13 N., R. 10 W., M. D.	Surveyed		320	320
Sec. 16, T. 15 N., R. 10 W., M. D.	Surveyed		40	40
Sec. 36, T. 17 N., R. 10 W., M. D.	Surveyed	80		80
Sec. 36, T. 19 N., R. 10 W., M. D.	Surveyed	600		600
Sec. 36, T. 21 N., R. 10 W., M. D.	Surveyed	200		200
Sec. 16, T. 22 N., R. 10 W., M. D.	Surveyed	440		440
Sec. 16, T. 23 N., R. 10 W., M. D.	Surveyed	360		360
Sec. 36, T. 23 N., R. 10 W., M. D.	Surveyed	480		480
Sec. 36, T. 24 N., R. 10 W., M. D.	Surveyed	320		320
Sec. 36, T. 29 N., R. 10 W., M. D.	Surveyed	.16		.16
Sec. 36, T. 31 N., R. 10 W., M. D.	Surveyed	80		80
Sec. 36, T. 32 N., R. 10 W., M. D.	Surveyed		40	40
Sec. 36, T. 36 N., R. 10 W., M. D.	Surveyed	80		80
Sec. 16, T. 37 N., R. 10 W., M. D.	Surveyed	82.18		82.18
Sec. 36, T. 37 N., R. 10 W., M. D.	Surveyed	163.01		163.01
Sec. 16, T. 38 N., R. 10 W., M. D.	Surveyed	160		160
Sec. 16, T. 39 N., R. 10 W., M. D.	Surveyed	80		80
Sec. 36, T. 39 N., R. 10 W., M. D.	Surveyed	60		60
Sec. 16, T. 40 N., R. 10 W., M. D.	Surveyed	130.70		130.70

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 36, T. 40 N., R. 10 W., M. D.	Surveyed	280		280
Sec 16, T. 41 N., R. 10 W., M. D.	Surveyed	240		240
Sec. 36, T. 41 N., R. 10 W., M. D.	Surveyed		40	40
Sec. 36, T. 48 N., R. 10 W., M. D.	Surveyed	239.65		239.65
Sec. 16, T. 5 N., R. 11 W., M. D.	Unsurveyed		640	640
Sec. 36, T. 5 N., R. 11 W., M. D.	Unsurveyed		640	640
Sec. 36, T. 8 N., R. 11 W., M. D.	Surveyed	29.80		29.80
Sec. 16, T. 9 N., R. 11 W., M. D.	Surveyed		80	80
Sec. 36, T. 14 N., R. 11 W., M. D.	Surveyed		660.48	660.48
Sec. 16, T. 15 N., R. 11 W., M. D.	Surveyed		568.72	568.72
Sec. 16, T. 18 N., R. 11 W., M. D.	Surveyed		320	320
Sec. 36, T. 18 N., R. 11 W., M. D.	Surveyed	600		600
Sec. 16, T. 20 N., R. 11 W., M. D.	Surveyed		640	640
Sec. 16, T. 21 N., R. 11 W., M. D.	Surveyed		640	640
Sec. 16, T. 23 N., R. 11 W., M. D.	Surveyed		480	480
Sec 36, T. 24 N., R. 11 W., M. D.	Surveyed	480		480
Sec. 36, T. 25 N., R. 11 W., M. D.	Surveyed	160		160
Sec. 16, T. 26 N., R. 11 W., M. D.	Surveyed	640		640
Sec 36, T. 27 N., R. 11 W., M. D.	Surveyed	160		160
Sec. 36, T. 32 N., R. 11 W., M. D.	Surveyed	200		200
Sec. 16, T. 35 N., R. 11 W., M. D.	Surveyed	109.21		109.21
Sec. 16, T. 36 N., R. 11 W., M. D.	Surveyed	80		80
Sec. 36, T. 36 N., R. 11 W., M. D.	Surveyed	20		20
Sec. 16, T. 37 N., R. 11 W., M. D.	Surveyed	80		80
Sec. 16, T. 38 N., R. 11 W., M. D.	Surveyed	40		40
Sec. 36, T. 38 N., R. 11 W., M. D.	Surveyed	160		160
Sec. 16, T. 39 N., R. 11 W., M. D.	Surveyed	200		200
Sec. 36, T. 39 N., R. 11 W., M. D.	Surveyed	213.56		213.56
Sec. 36, T. 40 N., R. 11 W., M. D.	Surveyed	320		320
Sec. 16, T. 41 N., R. 11 W., M. D.	Surveyed	582.48		582.48
Sec. 36, T. 41 N., R. 11 W., M. D.	Surveyed	160		160
Sec. 36, T. 42 N., R. 11 W., M. D.	Surveyed	20		20
Sec 16, T. 44 N., R. 11 W., M. D.	Surveyed	280		280
Sec. 16, T 45 N., R. 11 W., M. D.	Surveyed	240		240
Sec. 36, T 46 N., R. 11 W., M. D.	Surveyed	11.62		11.62
Sec. 36, T 47 N., R. 11 W., M. D.	Surveyed	80		80
Sec. 16, T. 48 N., R. 11 W., M. D.	Surveyed		109.20	109.20
Sec. 36, T. 48 N., R. 11 W., M. D.	Surveyed	189.20		189.20
Sec. 16, T. 17 N., R. 12 W., M. D.	Surveyed		80	80
Sec. 36, T. 17 N., R. 12 W., M. D.	Surveyed		520	520
Sec. 16, T. 18 N., R. 12 W., M. D.	Surveyed		600	600
Sec. 36, T. 18 N., R. 12 W., M. D.	Surveyed		40	40
Sec. 36, T. 19 N., R. 12 W., M. D.	Surveyed		40	40
Sec. 36, T. 21 N., R. 12 W., M. D.	Surveyed		80	80
Sec. 16, T. 25 N., R. 12 W., M. D.	Surveyed		640	640
Sec. 36, T. 25 N., R. 12 W., M. D.	Surveyed	560		560
Sec. 16, T. 27 N., R. 12 W., M. D.	Surveyed	120		120
Sec. 16, T. 28 N., R. 12 W., M. D.	Surveyed	40		40
Sec. 36, T. 29 N., R. 12 W., M. D.	Surveyed	25.95		25.95
Sec. 16, T. 30 N., R. 12 W., M. D.	Surveyed	120		120
Sec. 36, T. 30 N., R. 12 W., M. D.	Surveyed	120		120
Sec. 36, T. 31 N., R. 12 W., M. D.	Surveyed	80		80
Sec. 16, T. 32 N., R. 12 W., M. D.	Surveyed	160		160
Sec. 36, T. 32 N., R. 12 W., M. D.	Surveyed	240		240
Sec 16, T. 34 N., R. 12 W., M. D.	Surveyed	200		200
Sec. 36, T. 36 N., R. 12 W., M. D.	Surveyed	600		600
Sec. 16, T. 37 N., R. 12 W., M. D.	Unsurveyed	600		600
Sec. 36, T. 37 N., R. 12 W., M. D.	Unsurveyed	149.13		149.13
Sec. 36, T. 39 N., R. 12 W., M. D.	Surveyed	40		40
Sec. 16, T. 40 N., R. 12 W., M. D.	Surveyed	80		80

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 36, T. 40 N., R. 12 W., M. D.	Surveyed	210.12		210.12
Sec. 16, T. 41 N., R. 12 W., M. D.	Surveyed	25.07		25.07
Sec. 36, T. 42 N., R. 12 W., M. D.	Surveyed	39.36		39.36
Sec. 16, T. 44 N., R. 12 W., M. D.	Surveyed	39.02		39.02
Sec. 36, T. 44 N., R. 12 W., M. D.	Surveyed	160		160
Sec. 16, T. 45 N., R. 12 W., M. D.	Surveyed	600		600
Sec. 36, T. 45 N., R. 12 W., M. D.	Surveyed	600		600
Sec. 36, T. 46 N., R. 12 W., M. D.	Surveyed	200		200
Sec. 36, T. 48 N., R. 12 W., M. D.	Surveyed	280		280
Sec. 36, T. 8 N., R. 13 W., M. D.	Surveyed		160	160
Sec. 36, T. 12 N., R. 13 W., M. D.	Surveyed		160	160
Sec. 16, T. 14 N., R. 13 W., M. D.	Surveyed		320	320
Sec. 36, T. 14 N., R. 13 W., M. D.	Surveyed		640	640
Sec. 16, T. 15 N., R. 13 W., M. D.	Surveyed		80	80
Sec. 36, T. 15 N., R. 13 W., M. D.	Surveyed		440	440
Sec. 36, T. 18 N., R. 13 W., M. D.	Surveyed		40.02	40.02
Sec. 16, T. 19 N., R. 13 W., M. D.	Surveyed		80	80
Sec. 36, T. 20 N., R. 13 W., M. D.	Surveyed		480	480
Sec. 16, T. 21 N., R. 13 W., M. D.	Surveyed		240	240
Sec. 16, T. 23 N., R. 13 W., M. D.	Surveyed		.29	.29
Sec. 36, T. 24 N., R. 13 W., M. D.	Surveyed		.63	.63
Sec. 16, T. 12 N., R. 14 W., M. D.	Surveyed		2.68	2.68
Sec. 16, T. 21 N., R. 14 W., M. D.	Surveyed		120	120
Sec. 16, T. 17 N., R. 16 W., M. D.	Surveyed		320	320
Sec. 36, T. 22 N., R. 16 W., M. D.	Surveyed		640	640
Sec. 36, T. 23 N., R. 16 W., M. D.	Surveyed		640	640
Sec. 36, T. 24 N., R. 16 W., M. D.	Surveyed		640	640
Sec. 36, T. 17 N., R. 17 W., M. D.	Surveyed		480	480
Sec. 16, T. 20 N., R. 17 W., M. D.	Surveyed		640	640
Sec. 16, T. 21 N., R. 17 W., M. D.	Surveyed		.10	.10
Sec. 16, T. 23 N., R. 17 W., M. D.	Surveyed		2.23	2.23
Sec. 36, T. 2 S., R. 1 W., M. D.	Surveyed		.92	.92
Sec. 16, T. 9 S., R. 1 W., M. D.	Surveyed		2.18	2.18
Sec. 16, T. 10 S., R. 1 W., M. D.	Surveyed		280	280
Sec. 36, T. 8 S., R. 2 W., M. D.	Surveyed		160	160
Sec. 36, T. 7 S., R. 5 W., M. D.	Surveyed		560	560
Sec. 36, T. 1 S., R. 1 E., M. D.	Surveyed		323.72	323.72
Sec. 16, T. 18 S., R. 2 E., M. D.	Surveyed	640		640
Sec. 16, T. 18 S., R. 3 E., M. D.	Surveyed		320	320
Sec. 36, T. 18 S., R. 3 E., M. D.	Surveyed	280		280
Sec. 36, T. 19 S., R. 3 E., M. D.	Surveyed	120		120
Sec. 16, T. 20 S., R. 3 E., M. D.	Surveyed	160		160
Sec. 36, T. 20 S., R. 3 E., M. D.	Surveyed	160		160
Sec. 36, T. 5 S., R. 4 E., M. D.	Surveyed		640	640
Sec. 36, T. 7 S., R. 4 E., M. D.	Surveyed		520	520
Sec. 16, T. 9 S., R. 4 E., M. D.	Surveyed		84.70	84.70
Sec. 36, T. 19 S., R. 4 E., M. D.	Surveyed	40		40
Sec. 16, T. 1 S., R. 5 E., M. D.	Surveyed		160	160
Sec. 16, T. 2 S., R. 5 E., M. D.	Surveyed		280	280
Sec. 16, T. 7 S., R. 5 E., M. D.	Surveyed		480	480
Sec. 36, T. 7 S., R. 5 E., M. D.	Surveyed		520	520
Sec. 16, T. 8 S., R. 5 E., M. D.	Surveyed		600	600
Sec. 16, T. 14 S., R. 5 E., M. D.	Surveyed		331.45	331.45
Sec. 36, T. 18 S., R. 5 E., M. D.	Surveyed		320	320
Sec. 16, T. 19 S., R. 5 E., M. D.	Surveyed		320	320
Sec. 36, T. 19 S., R. 5 E., M. D.	Surveyed		360	360
Sec. 16, T. 23 S., R. 5 E., M. D.	Surveyed		200	200
Sec. 36, T. 23 S., R. 5 E., M. D.	Surveyed	320		320
Sec. 16, T. 9 S., R. 6 E., M. D.	Surveyed		640	640
Sec. 16, T. 11 S., R. 6 E., M. D.	Surveyed		106	106

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 36, T. 15 S., R. 6 E., M. D.	Surveyed		59.90	59.90
Sec. 16, T. 19 S., R. 6 E., M. D.	Surveyed		303.25	303.25
Sec. 16, T. 20 S., R. 6 E., M. D.	Surveyed	40		40
Sec. 16, T. 23 S., R. 6 E., M. D.	Surveyed	160		160
Sec. 36, T. 24 S., R. 6 E., M. D.	Surveyed		160	160
Sec. 16, T. 1 S., R. 7 E., M. D.	Surveyed		160	160
Sec. 36, T. 11 S., R. 7 E., M. D.	Surveyed		240	240
Sec. 36, T. 16 S., R. 7 E., M. D.	Surveyed		80	80
Sec. 36, T. 20 S., R. 7 E., M. D.	Surveyed		160	160
Sec. 16, T. 21 S., R. 7 E., M. D.	Surveyed		560	560
Sec. 36, T. 24 S., R. 7 E., M. D.	Surveyed		160	160
Sec. 16, T. 11 S., R. 8 E., M. D.	Surveyed		20.60	20.60
Sec. 16, T. 25 S., R. 8 E., M. D.	Surveyed		320	320
Sec. 36, T. 25 S., R. 8 E., M. D.	Surveyed		360	360
Sec. 36, T. 23 S., R. 9 E., M. D.	Surveyed		80	80
Sec. 16, T. 25 S., R. 9 E., M. D.	Surveyed		80	80
Sec. 36, T. 7 S., R. 10 E., M. D.	Surveyed		211.23	211.23
Sec. 36, T. 18 S., R. 10 E., M. D.	Surveyed		85.75	85.75
Sec. 16, T. 18 S., R. 11 E., M. D.	Surveyed	160		160
Sec. 36, T. 19 S., R. 11 E., M. D.	Surveyed	640		640
Sec. 36, T. 15 S., R. 12 E., M. D.	Surveyed		5.60	5.60
Sec. 36, T. 18 S., R. 12 E., M. D.	Surveyed	9.28		9.28
Sec. 16, T. 19 S., R. 12 E., M. D.	Surveyed	320		320
Sec. 36, T. 19 S., R. 12 E., M. D.	Surveyed	320		320
Sec. 16, T. 23 S., R. 12 E., M. D.	Surveyed	40		40
Sec. 16, T. 29 S., R. 12 E., M. D.	Surveyed	600		600
Sec. 36, T. 28 S., R. 13 E., M. D.	Surveyed		40.04	40.04
Sec. 16, T. 30 S., R. 13 E., M. D.	Surveyed	186.98		186.98
Sec. 36, T. 30 S., R. 13 E., M. D.	Surveyed		120	120
Sec. 36, T. 22 S., R. 14 E., M. D.	Surveyed		40	40
Sec. 36, T. 28 S., R. 14 E., M. D.	Surveyed		480	480
Sec. 36, T. 29 S., R. 14 E., M. D.	Surveyed		40	40
Sec. 16, T. 30 S., R. 14 E., M. D.	Surveyed		649.38	649.38
Sec. 36, T. 30 S., R. 14 E., M. D.	Surveyed		8.32	8.32
Sec. 16, T. 1 S., R. 15 E., M. D.	Surveyed		654.24	654.24
Sec. 16, T. 2 S., R. 15 E., M. D.	Surveyed		120	120
Sec. 36, T. 2 S., R. 15 E., M. D.	Surveyed		40	40
Sec. 36, T. 5 S., R. 15 E., M. D.	Surveyed		320	320
Sec. 16, T. 8 S., R. 15 E., M. D.	Surveyed		280	280
Sec. 36, T. 13 S., R. 15 E., M. D.	Surveyed		59.31	59.31
Sec. 16, T. 23 S., R. 15 E., M. D.	Surveyed		80	80
Sec. 16, T. 1 S., R. 16 E., M. D.	Surveyed		3.70	3.70
Sec. 16, T. 2 S., R. 16 E., M. D.	Surveyed		80	80
Sec. 36, T. 2 S., R. 16 E., M. D.	Surveyed		600	600
Sec. 36, T. 3 S., R. 16 E., M. D.	Surveyed		234.84	234.84
Sec. 16, T. 23 S., R. 16 E., M. D.	Surveyed		4.42	4.42
Sec. 16, T. 31 S., R. 16 E., M. D.	Surveyed	80		80
Sec. 36, T. 31 S., R. 16 E., M. D.	Surveyed	320		320
Sec. 36, T. 32 S., R. 16 E., M. D.	Surveyed	31.48		31.48
Sec. 36, T. 1. S., R. 17 E., M. D.	Surveyed	68.75		68.75
Sec. 16, T. 2 S., R. 17 E., M. D.	Surveyed	20		20
Sec. 36, T. 3 S., R. 17 E., M. D.	Surveyed		2.99	2.99
Sec. 36, T. 6 S., R. 17 E., M. D.	Surveyed		19.95	19.95
Sec. 16, T. 16 S., R. 17 E., M. D.	Surveyed		5.59	5.59
Sec. 36, T. 16 S., R. 17 E., M. D.	Surveyed		269.11	269.11
Sec. 36, T. 31 S., R. 17 E., M. D.	Surveyed	320		320
Sec. 16, T. 32 S., R. 17 E., M. D.	Surveyed	320		320
Sec. 16, T. 3 S., R. 18 E., M. D.	Surveyed	7.40		7.40
Sec. 36, T. 7 S., R. 18 E., M. D.	Surveyed		320	320
Sec. 16, T. 17 S., R. 18 E., M. D.	Surveyed		5.37	5.37

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1. 1912.
Sec. 36, T. 27 S., R. 18 E., M. D.	Surveyed		480	480
Sec. 16, T. 32 S., R. 18 E., M. D.	Surveyed	40		40
Sec. 36, T. 32 S., R. 18 E., M. D.	Surveyed		594.94	594.94
Sec. 36, T. 3 S., R. 19 E., M. D.	Surveyed		161.11	161.11
Sec. 36, T. 5 S., R. 19 E., M. D.	Surveyed		120.46	120.46
Sec. 16, T. 6 S., R. 19 E., M. D.	Surveyed		320	320
Sec. 16, T. 8 S., R. 19 E., M. D.	Surveyed		29.16	29.16
Sec. 36, T. 8 S., R. 19 E., M. D.	Surveyed		640	640
Sec. 36, T. 20 S., R. 19 E., M. D.	Surveyed		320	320
Sec. 16, T. 22 S., R. 19 E., M. D.	Surveyed		48.80	48.80
Sec. 36, T. 1 S., R. 20 E., M. D.	Surveyed	9.25		9.25
Sec. 16, T. 4 S., R. 20 E., M. D.	Surveyed	320		320
Sec. 16, T. 6 S., R. 20 E., M. D.	Surveyed		40.52	40.52
Sec. 36, T. 6 S., R. 20 E., M. D.	Surveyed		320	320
Sec. 36, T. 8 S., R. 20 E., M. D.	Surveyed		320	320
Sec. 36, T. 23 S., R. 20 E., M. D.	Surveyed		5.76	5.76
Sec. 36, T. 1 S., R. 21 E., M. D.	Surveyed	160		160
Sec. 36, T. 6 S., R. 21 E., M. D.	Surveyed	40		40
Sec. 16, T. 7 S., R. 21 E., M. D.	Surveyed	320		320
Sec. 16, T. 10 S., R. 21 E., M. D.	Surveyed		320	320
Sec. 36, T. 20 S., R. 21 E., M. D.	Surveyed		7.28	7.28
Sec. 16, T. 23 S., R. 21 E., M. D.	Surveyed		.03	.03
Sec. 16, T. 25 S., R. 21 E., M. D.	Surveyed		320	320
Sec. 16, T. 7 S., R. 22 E., M. D.	Surveyed	10		10
Sec. 36, T. 7 S., R. 22 E., M. D.	Surveyed	160		160
Sec. 36, T. 9 S., R. 22 E., M. D.	Surveyed	320		320
Sec. 36, T. 10 S., R. 22 E., M. D.	Surveyed		200	200
Sec. 36, T. 14 S., R. 22 E., M. D.	Surveyed		116.23	116.23
Sec. 36, T. 18 S., R. 22 E., M. D.	Surveyed		24.82	24.82
Sec. 16, T. 21 S., R. 22 E., M. D.	Surveyed		13.54	13.54
Sec. 16, T. 26 S., R. 22 E., M. D.	Surveyed		1.50	1.50
Sec. 16, T. 27 S., R. 22 E., M. D.	Surveyed		40	40
Sec. 36, T. 28 S., R. 22 E., M. D.	Surveyed		27.83	27.83
Sec. 16, T. 4 S., R. 23 E., M. D.	Surveyed	40		40
Sec. 36, T. 4 S., R. 23 E., M. D.	Surveyed	640		640
Sec. 16, T. 9 S., R. 23 E., M. D.	Surveyed		160	160
Sec. 36, T. 9 S., R. 23 E., M. D.	Surveyed	400		400
Sec. 16, T. 20 S., R. 23 E., M. D.	Surveyed		45.17	45.17
Sec. 16, T. 22 S., R. 23 E., M. D.	Surveyed		.32	.32
Sec. 36, T. 23 S., R. 23 E., M. D.	Surveyed		284.40	284.40
Sec. 16, T. 25 S., R. 23 S., M. D.	Surveyed		160	160
Sec. 36, T. 3 S., R. 24 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 4 S., R. 24 E., M. D.	Surveyed	3.79		3.79
Sec. 16, T. 7 S., R. 24 E., M. D.	Surveyed	12		12
Sec. 16, T. 8 S., R. 24 E., M. D.	Surveyed	.57		.57
Sec. 36, T. 8 S., R. 24 E., M. D.	Surveyed	40		40
Sec. 36, T. 16 S., R. 24 E., M. D.	Surveyed	320		320
Sec. 36, T. 21 S., R. 24 E., M. D.	Surveyed	80		80
Sec. 16, T. 7 S., R. 25 E., M. D.	Surveyed	400.25		400.25
Sec. 36, T. 8 S., R. 25 E., M. D.	Surveyed	.72		.72
Sec. 16, T. 11 S., R. 25 E., M. D.	Surveyed	440		440
Sec. 36, T. 11 S., R. 25 E., M. D.	Surveyed	400		400
Sec. 16, T. 12 S., R. 25 E., M. D.	Surveyed	320		320
Sec. 36, T. 12 S., R. 25 E., M. D.	Surveyed	640		640
Sec. 16, T. 18 S., R. 25 E., M. D.	Surveyed		50.37	50.37
Sec. 36, T. 20 S., R. 25 E., M. D.	Surveyed		19.84	19.84
Sec. 16, T. 21 S., R. 25 E., M. D.	Surveyed		320	320
Sec. 16, T. 32 S., R. 25 E., M. D.	Surveyed		10	10
Sec. 36, T. 1 S., R. 26 E., M. D.	Surveyed	600		600
Sec. 36, T. 2 S., R. 26 E., M. D.	Surveyed		560	560

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1. 1912.
Sec. 16, T. 3 S., R. 26 E., M. D.	Unsurveyed	578.84		578.84
Sec. 36, T. 3 S., R. 26 E., M. D.	Unsurveyed	.90		.90
Sec. 36, T. 5 S., R. 26 E., M. D.	Unsurveyed	.09		.09
Sec. 16, T. 6 S., R. 26 E., M. D.	Unsurveyed	40		40
Sec. 36, T. 8 S., R. 26 E., M. D.	Surveyed	21.36		21.36
Sec. 36, T. 10 S., R. 26 E., M. D.	Surveyed	45.53		45.53
Sec. 36, T. 11 S., R. 26 E., M. D.	Unsurveyed	.21		.21
Sec. 16, T. 13 S., R. 26 E., M. D.	Surveyed	.09		.09
Sec. 36, T. 13 S., R. 26 E., M. D.	Surveyed	320		320
Sec. 36, T. 31 S., R. 26 E., M. D.	Surveyed		240	240
Sec. 16. T. 1 S., R. 27 E., M. D.	Unsurveyed	80.50		80.50
Sec. 36. T. 1 S., R. 27 E., M. D.	Surveyed	40		40
Sec. 16. T. 2 S., R. 27 E., M. D.	Surveyed	80		80
Sec. 16, T. 3 S., R. 27 E., M. D.	Surveyed	142		142
Sec. 36, T. 3 S., R. 27 E., M. D.	Surveyed	18		18
Sec. 36, T. 4 S., R. 27 E., M. D.	Surveyed	51		51
Sec. 16. T. 10 S., R. 27 E., M. D.	Surveyed	.17		.17
Sec. 36, T. 10 S., R. 27 E., M. D.	Surveyed	26.51		26.51
Sec. 16, T. 14 S., R. 27 E., M. D.	Surveyed	160		160
Sec 36, T. 14 S., R. 27 E., M. D.	Surveyed	440		440
Sec. 16. T. 15 S., R. 27 E., M. D.	Surveyed	240		240
Sec. 36, T. 15 S., R. 27 E., M. D.	Surveyed	200		200
Sec. 16, T. 21 S., R. 27 E., M. D.	Surveyed		21.51	21.51
Sec. 36, T. 29 S., R. 27 E., M. D.	Surveyed		600	600
Sec. 16, T. 2 S., R. 28 E., M. D.	Surveyed	200		200
Sec. 16, T. 3 S., R. 28 E., M. D.	Surveyed	400		400
Sec. 16, T. 4 S., R. 28 E., M. D.	Surveyed	21.76		21.76
Sec. 36, T. 4 S., R. 28 E., M. D.	Surveyed	640		640
Sec. 16, T. 5 S., R. 28 E., M. D.	Unsurveyed	116.59		116.59
Sec. 36, T. 5 S., R. 28 E., M. D.	Unsurveyed		27.77	27.77
Sec. 16, T. 6 S., R. 28 E., M. D.	Unsurveyed	3.81		3.81
Sec. 16, T. 7 S., R. 28 E., M. D.	Surveyed	1.57		1.57
Sec. 16. T. 9 S., R. 28 E., M. D.	Surveyed	8.15		8.15
Sec. 36, T. 12 S., R. 28 E., M. D.	Surveyed	40		40
Sec. 16, T. 15 S., R. 28 E., M. D.	Surveyed	400		400
Sec. 36, T. 15 S., R. 28 E., M. D.	Surveyed	40		40
Sec. 36, T. 16 S., R. 28 E., M. D.	Surveyed	621.71		621.71
Sec. 16. T. 1 S., R. 29 E., M. D.	Surveyed	200		200
Sec. 16, T. 5 S., R. 29 E., M. D.	Surveyed	144.86		144.86
Sec. 36, T. 5 S., R. 29 E., M. D.	Surveyed	17.53		17.53
Sec. 16, T. 7 S., R. 29 E., M. D.	Surveyed	40.49		40.49
Sec. 36, T. 7 S., R. 29 E., M. D.	Surveyed	160		160
Sec. 36, T. 8 S., R. 29 E., M. D.	Unsurveyed	.26		.26
Sec. 16, T. 15 S., R. 29 E., M. D.	Surveyed	91.64		91.64
Sec. 36. T. 17 S., R. 29 E., M. D.	Surveyed	280		280
Sec. 16, T. 19 S., R. 29 E., M. D.	Surveyed	320		320
Sec. 16, T. 1 S., R. 30 E., M. D.	Surveyed	640		640
Sec. 36, T. 1 S., R. 30 E., M. D.	Surveyed	360		360
Sec. 36, T. 2 S., R. 30 E., M. D.	Surveyed	640		640
Sec. 36, T. 3 S., R. 30 E., M. D.	Surveyed	640		640
Sec. 16, T. 4 S., R. 30 E., M. D.	Surveyed	551.25		551.25
Sec. 16, T. 5 S., R. 30 E., M. D.	Surveyed	.38		.38
Sec. 16, T. 7 S., R. 30 E., M. D.	Surveyed	80		80
Sec. 16, T. 8 S., R. 30 E., M. D.	Unsurveyed	25.89		25.89
Sec. 16, T. 13 S., R. 30 E., M. D.	Surveyed	120		120
Sec. 36, T. 13 S., R. 30 E., M. D.	Surveyed	19.11		19.11
Sec. 16, T. 15 S., R. 30 E., M. D.	Surveyed	28.16		28.16
Sec. 36, T. 15 S., R. 30 E., M. D.	Surveyed	192.20		192.20
Sec. 36, T. 17 S., R. 30 E., M. D.	Surveyed	68.36		68.36
Sec. 16, T. 19 S., R. 30 E., M. D.	Surveyed	.13		.13

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1. 1912.
Sec. 16, T. 21 S., R. 30 E., M. D.	Surveyed	46.52		46.52
Sec. 36, T. 23 S., R. 30 E., M. D.	Surveyed	80		80
Sec. 16, T. 25 S., R. 30 E., M. D.	Surveyed		160	160
Sec. 36, T. 26 S., R. 30 E., M. D.	Surveyed		320	320
Sec. 16, T. 1 S., R. 31 E., M. D.	Surveyed		640	640
Sec. 36, T. 1 S., R. 31 E., M. D.	Surveyed		200	200
Sec. 16, T. 2 S., R. 31 E., M. D.	Surveyed		640	640
Sec. 36, T. 2 S., R. 31 E., M. D.	Surveyed		640	640
Sec. 36, T. 4 S., R. 31 E., M. D.	Surveyed		640	640
Sec. 16, T. 5 S., R. 31 E., M. D.	Surveyed		320	320
Sec. 36, T. 5 S., R. 31 E., M. D.	Surveyed		640	640
Sec. 36, T. 8 S., R. 31 E., M. D.	Surveyed	17.21		17.21
Sec. 36, T. 9 S., R. 31 E., M. D.	Surveyed	14.21		14.21
Sec. 36, T. 11 S., R. 31 E., M. D.	Unsurveyed	2		2
Sec. 36, T. 13 S., R. 31 E., M. D.	Surveyed	159.78		159.78
Sec. 36, T. 15 S., R. 31 E., M. D.	Surveyed	8.15		8.15
Sec. 16, T. 23 S., R. 31 E., M. D.	Surveyed	40		40
Sec. 16, T. 28 S., R. 31 E., M. D.	Surveyed	160		160
Sec. 16, T. 1 S., R. 32 E., M. D.	Surveyed		400	400
Sec. 36, T. 1 S., R. 32 E., M. D.	Surveyed	12.60		12.60
Sec. 16, T. 2 S., R. 32 E., M. D.	Surveyed		640	640
Sec. 36, T. 2 S., R. 32 E., M. D.	Surveyed		640	640
Sec. 16, T. 3 S., R. 32 E., M. D.	Surveyed		640	640
Sec. 16, T. 4 S., R. 32 E., M. D.	Surveyed		640	640
Sec. 16, T. 5 S., R. 32 E., M. D.	Surveyed		640	640
Sec. 36, T. 5 S., R. 32 E., M. D.	Surveyed		480	480
Sec. 16, T. 7 S., R. 32 E., M. D.	Surveyed		80	80
Sec. 36, T. 7 S., R. 32 E., M. D.	Surveyed		640	640
Sec. 36, T. 9 S., R. 32 E., M. D.	Surveyed	54.72		54.72
Sec. 36, T. 10 S., R. 32 E., M. D.	Unsurveyed	2.70		2.70
Sec. 16, T. 11 S., R. 32 E., M. D.	Unsurveyed	.63		.63
Sec. 36, T. 12 S., R. 32 E., M. D.	Unsurveyed	.54		.54
Sec. 16, T. 14 S., R. 32 E., M. D.	Surveyed	15.12		15.12
Sec. 36, T. 14 S., R. 32 E., M. D.	Surveyed	120		120
Sec. 16, T. 15 S., R. 32 E., M. D.	Surveyed	.30		.30
Sec. 16, T. 17 S., R. 32 E., M. D.	Surveyed	4.26		4.26
Sec. 36, T. 21 S., R. 32 E., M. D.	Surveyed	.09		.09
Sec. 16, T. 22 S., R. 32 E., M. D.	Surveyed	3.41		3.41
Sec. 36, T. 22 S., R. 32 E., M. D.	Surveyed	1.18		1.18
Sec. 16, T. 29 S., R. 32 E., M. D.	Surveyed	160		160
Sec. 36, T. 29 S., R. 32 E., M. D.	Surveyed	640		640
Sec. 36, T. 30 S., R. 32 E., M. D.	Surveyed	240		240
Sec. 16, T. 2 S., R. 33 E., M. D.	Surveyed	600		600
Sec. 36, T. 2 S., R. 33 E., M. D.	Surveyed		640	640
Sec. 36, T. 6 S., R. 33 E., M. D.	Surveyed		640	640
Sec. 16, T. 8 S., R. 33 E., M. D.	Surveyed		160	160
Sec. 16, T. 11 S., R. 33 E., M. D.	Surveyed	4.18		4.18
Sec. 36, T. 11 S., R. 33 E., M. D.	Surveyed	2.44		2.44
Sec. 36, T. 21 S., R. 33 E., M. D.	Surveyed	71.78		71.78
Sec. 16, T. 22 S., R. 33 E., M. D.	Surveyed	50.88		50.88
Sec. 16, T. 27 S., R. 33 E., M. D.	Surveyed	.03		.03
Sec. 36, T. 29 S., R. 33 E., M. D.	Surveyed	560		560
Sec. 36, T. 31 S., R. 33 E., M. D.	Surveyed	480		480
Sec. 16, T. 1 S., R. 34 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 1 S., R. 34 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 2 S., R. 34 E., M. D.	Surveyed		15.23	15.23
Sec. 36, T. 3 S., R. 34 E., M. D.	Unsurveyed	40		40
Sec. 36, T. 4 S., R. 34 E., M. D.	Unsurveyed	40		40
Sec. 36, T. 9 S., R. 34 E., M. D.	Surveyed		320	320
Sec. 16, T. 10 S., R. 34 E., M. D.	Surveyed		320	320

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 36, T. 10 S., R. 34 E., M. D.	Surveyed		600	600
Sec. 16, T. 11 S., R. 34 E., M. D.	Surveyed		480	480
Sec. 16, T. 12 S., R. 34 E., M. D.	Surveyed	160		160
Sec. 36, T. 12 S., R. 34 E., M. D.	Surveyed		160	160
Sec. 16, T. 14 S., R. 34 E., M. D.	Unsurveyed	6.49		6.49
Sec. 16, T. 18 S., R. 34 E., M. D.	Surveyed	240		240
Sec. 16, T. 20 S., R. 34 E., M. D.	Surveyed	40		40
Sec. 16, T. 21 S., R. 34 E., M. D.	Surveyed	640		640
Sec. 16, T. 29 S., R. 34 E., M. D.	Surveyed	238.21		238.21
Sec. 36, T. 29 S., R. 34 E., M. D.	Surveyed	640		640
Sec. 16, T. 30 S., R. 34 E., M. D.	Surveyed	640		640
Sec. 36, T. 31 S., R. 34 E., M. D.	Surveyed	663.84		663.84
Sec. 36, T. 32 S., R. 34 E., M. D.	Surveyed	320		320
Sec. 16, T. 3 S., R. 35 E., M. D.	Surveyed		148.12	148.12
Sec. 16, T. 4 S., R. 35 E., M. D.	Unsurveyed		9.12	9.12
Sec. 16, T. 5 S., R. 35 E., M. D.	Unsurveyed	40		40
Sec. 16, T. 6 S., R. 35 E., M. D.	Surveyed	320		320
Sec. 36, T. 6 S., R. 35 E., M. D.	Surveyed	40		40
Sec. 16, T. 7 S., R. 35 E., M. D.	Surveyed	640		640
Sec. 36, T. 7 S., R. 35 E., M. D.	Surveyed		640	640
Sec. 16, T. 8 S., R. 35 E., M. D.	Surveyed		160	160
Sec. 36, T. 8 S., R. 35 E., M. D.	Surveyed		640	640
Sec. 16, T. 9 S., R. 35 E., M. D.	Surveyed		640	640
Sec. 36, T. 9 S., R. 35 E., M. D.	Surveyed		640	640
Sec. 36, T. 10 S., R. 35 E., M.D.	Unsurveyed	40		40
Sec. 36, T. 11 S., R. 35 E., M. D.	Unsurveyed	.96		.96
Sec. 36, T. 12 S., R. 35 E., M. D.	Surveyed	40.55		40.55
Sec. 36, T. 13 S., R. 35 E., M. D.	Surveyed		40	40
Sec. 16, T. 21 S., R. 35 E., M. D.	Surveyed	71.42		71.42
Sec. 16, T. 24 S., R. 35 E., M. D.	Surveyed	2.40		2.40
Sec. 36, T. 24 S., R. 35 E., M. D.	Surveyed	1.31		1.31
Sec. 36, T. 29 S., R. 35 E., M. D.	Surveyed		640	640
Sec. 36, T. 30 S., R. 35 E., M. D.	Surveyed		640	640
Sec. 16, T. 31 S., R. 35 E., M. D.	Surveyed	41.90		41.90
Sec. 36, T. 31 S., R. 35 E., M. D.	Surveyed	641.54		641.54
Sec. 36, T. 32 S., R. 35 E., M. D.	Surveyed		640	640
Sec. 16, T. 5 S., R. 36 E., M. D.	Surveyed	640		640
Sec. 36, T. 5 S., R. 36 E., M. D.	Surveyed		640	640
Sec. 16, T. 6 S., R. 36 E., M. D.	Surveyed	640		640
Sec. 36, T. 6 S., R. 36 E., M. D.	Surveyed		480	480
Sec. 36, T. 7 S., R. 36 E., M. D.	Surveyed		640	640
Sec. 16, T. 8 S., R. 36 E., M. D.	Surveyed		640	640
Sec. 36, T. 8 S., R. 36 E., M. D.	Surveyed		640	640
Sec. 16, T. 9 S., R. 36 E., M. D.	Surveyed	640		640
Sec. 36, T. 9 S., R. 36 E., M. D.	Surveyed		640	640
Sec. 16, T. 10 S., R. 36 E., M. D.	Surveyed	640		640
Sec. 36, T. 13 S., R. 36 E., M. D.	Surveyed		640	640
Sec. 36, T. 14 S., R. 36 E., M. D.	Surveyed		640	640
Sec. 16, T. 15 S., R. 36 E., M. D.	Surveyed		160	160
Sec. 16, T. 16 S., R. 36 E., M. D.	Surveyed	55.42		55.42
Sec. 36, T. 18 S., R. 36 E., M. D.	Surveyed	480		480
Sec. 16, T. 20 S., R. 36, E., M. D.	Surveyed	.23		.23
Sec. 36, T. 24 S., R. 36 E., M. D.	Surveyed	35		35
Sec. 16, T. 25 S., R. 36 E., M. D.	Surveyed	1.24		1.24
Sec. 16, T. 26 S., R. 36 E., M. D.	Surveyed	.26		.26
Sec. 16, T. 31 S., R. 36 E., M. D.	Surveyed		640	640
Sec. 36, T. 31 S., R. 36 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 6 S., R. 37 E., M. D.	Surveyed		640	640
Sec. 36, T. 6 S., R. 37 E., M. D.	Surveyed		640	640
Sec. 16, T. 7 S., R. 37 E., M. D.	Surveyed		640	640

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 36, T. 7 S., R. 37 E., M. D.----	Surveyed ----	------------	640	640
Sec. 16, T. 8 S., R. 37 E., M. D.----	Surveyed ----	------------	640	640
Sec. 36, T. 8 S., R. 37 E., M. D.----	Surveyed ----	------------	640	640
Sec. 16, T. 9 S., R. 37 E., M. D.----	Surveyed ----	------------	640	640
Sec. 36, T. 9 S., R. 37 E., M. D.----	Surveyed ----	------------	640	640
Sec. 36, T. 10 S., R. 37 E., M. D.----	Surveyed ----	------------	160	160
Sec. 16, T. 11 S., R. 37 E., M. D.----	Surveyed ----	------------	640	640
Sec. 36, T. 11 S., R. 37 E., M. D.----	Surveyed ----	------------	640	640
Sec. 16, T. 12 S., R. 37 E., M. D.----	Surveyed ----	------------	640	640
Sec. 36, T. 12 S., R. 37 E., M. D.----	Surveyed ----	------------	640	640
Sec. 36, T. 13 S., R. 37 E., M. D.----	Surveyed ----	------------	640	640
Sec. 16, T. 14 S., R. 37 E., M. D.----	Unsurveyed--	------------	640	640
Sec. 36, T. 14 S., R. 37 E., M. D.----	Unsurveyed--	------------	640	640
Sec. 16, T. 15 S., R. 37 E., M. D.----	Surveyed ----	------------	640	640
Sec. 36, T. 15 S., R. 37 E., M. D.----	Surveyed ----	------------	640	640
Sec. 36, T. 18 S., R. 37 E., M. D.----	Surveyed ----	------------	640	640
Sec. 16, T. 19 S., R. 37 E., M. D.----	Unsurveyed--	------------	640	640
Sec. 36, T. 19 S., R. 37 E., M. D.----	Surveyed ----	------------	640	640
Sec. 36, T. 20 S., R. 37 E., M. D.----	Surveyed ----	40	------------	40
Sec. 36, T. 21 S., R. 37 E., M. D.----	Surveyed ----	------------	640	640
Sec. 36, T. 26 S., R. 37 E., M. D.----	Surveyed ----	.86	------------	.86
Sec. 16, T. 27 S., R. 37 E., M. D.----	Surveyed ----	.03	------------	.03
Sec. 36, T. 28 S., R. 37 E., M. D.----	Surveyed ----	------------	17.59	17.59
Sec. 16, T. 30 S., R. 37 E., M. D.----	Surveyed ----	------------	160	160
Sec. 16, T. 5 S., R. 38 E., M. D.----	Surveyed ----	------------	640	640
Sec. 16, T. 6 S., R. 38 E., M. D.----	Surveyed ----	------------	640	640
Sec. 36, T. 6 S., R. 38 E., M. D.----	Surveyed ----	------------	640	640
Sec. 16, T. 7 S., R. 38 E., M. D.----	Surveyed ----	------------	640	640
Sec. 36, T. 7 S., R. 38 E., M. D.----	Surveyed ----	------------	640	640
Sec. 16, T. 8 S., R. 38 E., M. D.----	Surveyed ----	------------	640	640
Sec. 36, T. 8 S., R. 38 E., M. D.----	Surveyed ----	------------	640	640
Sec. 16, T. 9 S., R. 38 E., M. D.----	Surveyed ----	------------	640	640
Sec. 36, T. 9 S., R. 38 E., M. D.----	Surveyed ----	------------	640	640
Sec. 16, T. 10 S., R. 38 E., M. D.----	Unsurveyed--	------------	640	640
Sec. 36, T. 10 S., R. 38 E., M. D.----	Unsurveyed--	------------	640	640
Sec. 16, T. 11 S., R. 38 E., M. D.----	Unsurveyed--	------------	640	640
Sec. 36, T. 11 S., R. 38 E., M. D.----	Unsurveyed--	------------	640	640
Sec. 16, T. 12 S., R. 38 E., M. D.----	Unsurveyed--	------------	640	640
Sec. 36, T. 12 S., R. 38 E., M. D.----	Unsurveyed--	------------	640	640
Sec. 16, T. 13 S., R. 38 E., M. D.----	Surveyed ----	------------	640	640
Sec. 36, T. 13 S., R. 38 E., M. D.----	Surveyed ----	------------	411.56	411.56
Sec. 16, T. 14 S., R. 38 E., M. D.----	Surveyed ----	------------	400	400
Sec. 36, T. 14 S., R. 38 E., M. D.----	Surveyed ----	------------	640	640
Sec. 16, T. 15 S., R. 38 E., M. D.----	Unsurveyed--	------------	640	640
Sec. 36, T. 15 S., R. 38 E., M. D.----	Unsurveyed--	------------	640	640
Sec. 16, T. 16 S., R. 38 E., M. D.----	Surveyed ----	------------	640	640
Sec. 36, T. 16 S., R. 38 E., M. D.----	Surveyed ----	------------	640	640
Sec. 36, T. 17 S., R. 38 E., M. D.----	Surveyed ----	------------	2.09	2.09
Sec. 16, T. 18 S., R. 38 E., M. D.----	Surveyed ----	------------	640	640
Sec. 36, T. 18 S., R. 38 E., M. D.----	Unsurveyed--	------------	640	640
Sec. 16, T. 19 S., R. 38 E., M. D.----	Unsurveyed--	------------	640	640
Sec. 36, T. 19 S., R. 38 E., M. D.----	Unsurveyed--	------------	640	640
Sec. 16, T. 20 S., R. 38 E., M. D.----	Unsurveyed--	------------	640	640
Sec. 36, T. 20 S., R. 38 E., M. D.----	Unsurveyed--	------------	640	640
Sec. 16, T. 21 S., R. 38 E., M. D.----	Surveyed ----	------------	640	640
Sec. 36, T. 21 S., R. 38 E., M. D.----	Surveyed ----	------------	640	640
Sec. 36, T. 22 S., R. 38 E., M. D.----	Surveyed ----	------------	640	640
Sec. 16, T. 23 S., R. 38 E., M. D.----	Surveyed ----	------------	640	640
Sec. 36, T. 23 S., R. 38 E., M. D.----	Surveyed ----	------------	640	640
Sec. 16, T. 24 S., R. 38 E., M. D.----	Surveyed ----	------------	23.04	23.04

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 16, T. 27 S., R. 38 E., M. D.	Surveyed		640	640
Sec. 16, T. 29 S., R. 38 E., M. D.	Surveyed		640	640
Sec. 36, T. 30 S., R. 38 E., M. D.	Surveyed		320	320
Sec. 16, T. 7 S., R. 39 E., M. D.	Surveyed		640	640
Sec. 36, T. 7 S., R. 39 E., M. D.	Surveyed		640	640
Sec. 16, T. 8 S., R. 39 E., M. D.	Surveyed		640	640
Sec. 36, T. 8 S., R. 39 E., M. D.	Surveyed		640	640
Sec. 36, T. 9 S., R. 39 E., M. D.	Surveyed		640	640
Sec. 16, T. 10 S., R. 39 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 10 S., R. 39 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 11 S., R. 39 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 12 S., R. 39 E., M. D.	Surveyed		640	640
Sec. 36, T. 12 S., R. 39 E., M. D.	Surveyed		640	640
Sec. 16, T. 13 S., R. 39 E., M. D.	Surveyed		640	640
Sec. 36, T. 13 S., R. 39 E., M. D.	Surveyed		640	640
Sec. 16, T. 14 S., R. 39 E., M. D.	Surveyed		640	640
Sec. 36, T. 14 S., R. 39 E., M. D.	Surveyed		640	640
Sec. 16, T. 15 S., R. 39 E., M. D.	Surveyed		640	640
Sec. 36, T. 15 S., R. 39 E., M. D.	Surveyed		640	640
Sec. 16, T. 16 S., R. 39 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 16 S., R. 39 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 17 S., R. 39 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 17 S., R. 39 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 18 S., R. 39 E., M. D.	Surveyed		640	640
Sec. 36, T. 18 S., R. 39 E., M. D.	Surveyed		640	640
Sec. 16, T. 19 S., R. 39 E., M. D.	Surveyed		640	640
Sec. 36, T. 19 S., R. 39 E., M. D.	Surveyed		640	640
Sec. 16, T. 20 S., R. 39 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 20 S., R. 39 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 21 S., R. 39 E., M. D.	Surveyed		640	640
Sec. 36, T. 21 S., R. 39 E., M. D.	Surveyed		640	640
Sec. 16, T. 22 S., R. 39 E., M. D.	Surveyed		640	640
Sec. 36, T. 22 S., R. 39 E., M. D.	Surveyed		640	640
Sec. 16, T. 23 S., R. 39 E., M. D.	Surveyed		640	640
Sec. 16, T. 24 S., R. 39 E., M. D.	Surveyed		640	640
Sec. 16, T. 29 S., R. 39 E., M. D.	Surveyed		640	640
Sec. 36, T. 29 S., R. 39 E., M. D.	Surveyed		640	640
Sec. 36, T. 30 S., R. 39 E., M. D.	Surveyed		640	640
Sec. 36, T. 32 S., R. 39 E., M. D.	Surveyed		320	320
Sec. 16, T. 7 S., R. 40 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 7 S., R. 40 E., M. D.	Unsurveyed		320	320
Sec. 16, T. 8 S., R. 40 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 8 S., R. 40 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 9 S., R. 40 E., M. D.	Surveyed		360.22	360.22
Sec 16, T. 10 S., R. 40 E., M. D.	Surveyed		3.06	3.06
Sec. 16, T. 11 S., R. 40 E., M. D.	Surveyed		440	440
Sec. 36, T. 11 S., R. 40 E., M. D.	Surveyed		136.14	136.14
Sec. 16, T. 13 S., R. 40 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 13 S., R. 40 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 14 S., R. 40 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 14 S., R. 40 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 15 S., R. 40 E., M. D.	Surveyed		640	640
Sec 36, T. 15 S., R. 40 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 16 S., R. 40 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 16 S., R. 40 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 17 S., R. 40 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 17 S., R. 40 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 18 S., R. 40 E., M. D.	Surveyed		640	640
Sec. 36, T. 18 S., R. 40 E., M. D.	Surveyed		640	640
Sec. 16, T. 19 S., R. 40 E., M. D.	Surveyed		640	640

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1. 1912.
Sec. 36, T. 19 S., R. 40 E., M. D.	Surveyed		640	640
Sec. 16, T. 20 S., R. 40 E., M. D.	Surveyed		640	640
Sec. 36, T. 20 S., R. 40 E., M. D.	Surveyed		640	640
Sec. 16, T. 21 S., R. 40 E., M. D.	Surveyed		640	640
Sec. 36, T. 21 S., R. 40 E., M. D.	Surveyed		640	640
Sec. 16, T. 22 S., R. 40 E., M. D.	Surveyed		640	640
Sec. 36, T. 22 S., R. 40 E., M. D.	Surveyed		640	640
Sec. 16, T. 23 S., R. 40 E., M. D.	Surveyed		440	440
Sec. 36, T. 26 S., R. 40 E., M. D.	Surveyed		640	640
Sec. 36, T. 27 S., R. 40 E., M. D.	Surveyed		7.89	7.89
Sec. 16, T. 29 S., R. 40 E,, M. D.	Surveyed		640	640
Sec. 16, T. 8 S., R. 41 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 8 S., R. 41 E., M. D.	Unsurveyed		639.87	639.87
Sec. 16, T. 9 S., R. 41 E., M. D.	Surveyed		640	640
Sec. 16, T. 10 S., R. 41 E., M. D.	Surveyed		640	640
Sec. 36, T. 10 S., R. 41 E., M. D.	Surveyed		640	640
Sec. 16, T. 11 S., R. 41 E., M. D.	Surveyed		640	640
Sec. 36, T. 11 S., R. 41 E., M. D.	Surveyed		640	640
Sec. 16, T. 12 S., R. 41 E., M. D.	Surveyed		40	40
Sec. 36, T. 12 S., R. 41 E., M. D.	Surveyed		155.69	155.69
Sec. 16, T. 13 S., R. 41 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 13 S., R. 41 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 14 S., R. 41 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 14 S., R. 41 E., M. M.	Unsurveyed		640	640
Sec. 16, T. 15 S., R. 41 E., M. D.	Unsurveyed		640	640
Sec 36 T. 15 S., R. 41 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 16 S., R. 41 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 17 S., R. 41 E., M. D.	Surveyed		640	640
Sec. 16, T. 18 S., R. 41 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 18 S., R. 41 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 19 S., R. 41 E., M. D.	Surveyed		640	640
Sec. 36, T. 19 S., R. 41 E., M. D.	Surveyed		640	640
Sec. 16, T. 20 S., R. 41 E., M. D.	Surveyed		640	640
Sec. 36, T. 20 S., R. 41 E., M. D.	Surveyed		640	640
Sec. 16, T. 21 S., R. 41 E., M. D.	Surveyed		640	640
Sec. 36, T. 21 S., R. 41 E., M. D.	Surveyed		480	480
Sec. 16, T. 22 S., R. 41 E., M. D.	Surveyed		640	640
Sec. 36, T. 22 S., R. 41 E., M. D.	Surveyed		640	640
Sec. 16, T. 23 S., R. 41 E., M. D.	Surveyed		640	640
Sec. 36, T. 23 S., R. 41 E., M. D.	Surveyed		640	640
Sec. 16, T. 24 S., R. 41 E., M. D.	Surveyed		640	640
Sec. 16, T. 25 S., R. 41 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 25 S., R. 41 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 26 S., R. 41 E., M. D.	Unsurveyed		279.93	279.93
Sec. 36, T. 26 S., R. 41 E., M. D.	Unsurveyed		41.31	41.31
Sec. 36, T. 29 S., R. 41 E., M. D.	Unsurveyed		520.73	520.73
Sec. 16, T. 30 S., R. 41 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 9 S., R. 42 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 9 S., R. 42 E., M. D.	Unsurveyed		108.63	108.63
Sec. 16, T. 10 S., R. 42 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 10 S., R. 42 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 11 S., R. 42 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 11 S., R. 42 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 12 S., R. 42 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 12 S., R. 42 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 13 S., R. 42 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 13 S., R. 42 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 14 S., R. 42 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 14 S., R. 42 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 15 S., R. 42 E., M. M.	Unsurveyed		640	640
Sec. 36, T. 15 S., R. 42 E., M. D.	Unsurveyed		640	640

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 16, T. 16 S., R. 42 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 16 S., R. 42 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 17 S., R. 42 E., M. D.	Surveyed		640	640
Sec. 36, T. 17 S., R. 42 E., M. D.	Surveyed		640	640
Sec. 16, T. 18 S., R. 42 E., M. D.	Surveyed		640	640
Sec. 36, T. 18 S., R. 42 E., M. D.	Surveyed		640	640
Sec. 16, T. 19 S., R. 42 E., M. D.	Surveyed		640	640
Sec. 36, T. 19 S., R. 42 E., M. D.	Surveyed		640	640
Sec. 16, T. 20 S., R. 42 E., M. D.	Surveyed		640	640
Sec. 36, T. 20 S., R. 42 E., M. D.	Surveyed		640	640
Sec. 16, T. 21 S., R. 42 E., M. D.	Surveyed		640	640
Sec. 36, T. 21 S., R. 42 E., M. D.	Surveyed		640	640
Sec. 16, T. 22 S., R. 42 E., M. D.	Surveyed		640	640
Sec. 36, T. 22 S., R. 42 E., M. D.	Surveyed		640	640
Sec. 16, T. 23 S., R. 42 E., M. D.	Surveyed		640	640
Sec. 36, T. 23 S., R. 42 E., M. D.	Surveyed		640	640
Sec. 16, T. 24 S., R. 42 E., M. D.	Surveyed		640	640
Sec. 36, T. 24 S., R. 42 E., M. D.	Surveyed		640	640
Sec. 16, T. 25 S., R. 42 E., M. D.	Surveyed		640	640
Sec. 36, T. 25 S., R. 42 E., M. D.	Surveyed		640	640
Sec. 16, T. 26 S., R. 42 E., M. D.	Surveyed		640	640
Sec. 36, T. 26 S., R. 42 E., M. D.	Surveyed		241.36	241.36
Sec. 16, T. 27 S., R. 42 E., M. D.	Surveyed		34.02	34.02
Sec. 16, T. 28 S., R. 42 E., M. D.	Surveyed		160.24	160.24
Sec. 36, T. 28 S., R. 42 E., M. D.	Surveyed		640	640
Sec. 16, T. 29 S., R. 42 E., M. D.	Surveyed		.14	.14
Sec. 16, T. 30 S., R. 42 E., M. D.	Surveyed		640	640
Sec. 16, T. 10 S., R. 43 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 10 S., R. 43 E., M. D.	Unsurveyed		225.80	225.80
Sec. 16, T. 11 S., R. 43 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 11 S., R. 43 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 12 S., R. 43 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 12 S., R. 43 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 13 S., R. 43 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 13 S., R. 43 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 14 S., R. 43 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 14 S., R. 43 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 15 S., R. 43 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 15 S., R. 43 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 16 S., R. 43 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 16 S., R. 43 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 17 S., R. 43 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 17 S., R. 43 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 18 S., R. 43 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 18 S., R. 43 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 19 S., R. 43 E., M. D.	Surveyed		640	640
Sec. 36, T. 20 S., R. 43 E., M. D.	Surveyed		640	640
Sec. 16, T. 20 S., R. 43 E., M. D.	Surveyed		640	640
Sec. 36, T. 19 S., R. 43 E., M. D.	Surveyed		640	640
Sec. 16, T. 21 S., R. 43 E., M. D.	Surveyed		640	640
Sec. 36, T. 21 S., R. 43 E., M. D.	Surveyed		640	640
Sec. 16, T. 22 S., R. 43 E., M. D.	Surveyed		640	640
Sec. 36, T. 22 S., R. 43 E., M. D.	Surveyed		640	640
Sec. 16, T. 23 S., R. 43 E., M. D.	Surveyed		640	640
Sec. 36, T. 23 S., R. 43 E., M. D.	Surveyed		640	640
Sec. 16, T. 24 S., R. 43 E., M. D.	Surveyed		640	640
Sec. 36, T. 24 S., R. 43 E., M. D.	Surveyed		640	640
Sec. 16, T. 25 S., R. 43 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 25 S., R. 43 E., M. D.	Surveyed		160.85	160.85
Sec. 16, T. 26 S., R. 43 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 26 S., R. 43 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 27 S., R. 43 E., M. D.	Unsurveyed		640	640

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 36, T. 27 S., R. 43 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 28 S., R. 43 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 28 S., R. 43 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 29 S., R. 43 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 29 S., R. 43 E., M. D.	Surveyed		640	640
Sec. 16, T. 11 S., R. 44 E., M. D.	Surveyed		245.95	245.95
Sec. 36, T. 11 S., R. 44 E., M. D.	Surveyed		362.89	362.89
Sec. 16, T. 12 S., R. 44 E., M. D.	Surveyed		640	640
Sec. 36, T. 12 S., R. 44 E., M. D.	Surveyed		640	640
Sec. 16, T. 13 S., R. 44 E., M. D.	Surveyed		640	640
Sec. 36, T. 13 S., R. 44 E., M. D.	Surveyed		640	640
Sec. 16, T. 14 S., R. 44 E., M. D.	Surveyed		640	640
Sec. 36, T. 15 S., R. 44 E., M. D.	Surveyed		640	640
Sec. 16, T. 16 S., R. 44 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 17 S., R. 44 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 18 S., R. 44 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 18 S., R. 44 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 19 S., R. 44 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 19 S., R. 44 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 20 S., R. 44 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 21 S., R. 44 E., M. D.	Surveyed		120	120
Sec. 36, T. 31 S., R. 44 E., M. D.	Surveyed		640	640
Sec. 16, T. 22 S., R. 44 E., M. D.	Surveyed		640	640
Sec. 36, T. 22 S., R. 44 E., M. D.	Surveyed		600	600
Sec. 16, T. 23 S., R. 44 E., M. D.	Surveyed		560	560
Sec. 36, T. 23 S., R. 44 E., M. D.	Surveyed		280	280
Sec. 16, T. 24 S., R. 44 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 24 S., R. 44 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 25 S., R. 44 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 25 S., R. 44 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 26 S., R. 44 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 26 S., R. 44 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 27 S., R. 44 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 27 S., R. 44 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 28 S., R. 44 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 28 S., R. 44 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 30 S., R. 44 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 30 S., R. 44 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 31 S., R. 44 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 31 S., R. 44 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 12 S., R. 45 E., M. D.	Surveyed		453.17	453.17
Sec. 36, T. 12 S., R. 45 E., M. D.	Surveyed		455.20	455.20
Sec. 16, T. 13 S., R. 45 E., M. D.	Surveyed		.13	.13
Sec. 36, T. 13 S., R. 45 E., M. D.	Surveyed		640	640
Sec. 16, T. 14 S., R. 45 E., M. D.	Surveyed		640	640
Sec. 36, T. 14 S., R. 45 E., M. D.	Surveyed		640	640
Sec. 16, T. 15 S., R. 45 E., M. D.	Surveyed		600.62	600.62
Sec. 36, T. 15 S., R. 45 E., M. D.	Surveyed		640	640
Sec. 16, T. 16 S., R. 45 E., M. D.	Surveyed		5.69	5.69
Sec. 36, T. 16 S., R. 45 E., M. D.	Surveyed		640	640
Sec. 16, T. 17 S., R. 45 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 17 S., R. 45 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 18 S., R. 45 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 18 S., R. 45 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 19 S., R. 45 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 19 S., R. 45 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 20 S., R. 45 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 20 S., R. 45 E., M. D.	Unsurveyed		640	640
Sec. 16, T. 21 S., R. 45 E., M. D.	Unsurveyed		640	640
Sec. 36, T. 21 S., R. 45 E., M. D.	Unsurveyed		640	640

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1. 1912.
Sec. 16, T. 22 S., R. 45 E., M. D.	Unsurveyed	------------	640	640
Sec. 36, T. 22 S., R. 45 E., M. D.	Unsurveyed	------------	640	640
Sec. 16, T. 23 S., R. 45 E., M. D.	Unsurveyed	------------	640	640
Sec. 36, T. 23 S., R. 45 E., M. D.	Unsurveyed	------------	640	640
Sec. 16, T. 24 S., R. 45 E., M. D.	Unsurveyed	------------	640	640
Sec. 36, T. 24 S., R. 45 E., M. D.	Unsurveyed	------------	640	640
Sec. 16, T. 25 S., R. 45 E., M. D.	Unsurveyed	------------	640	640
Sec. 36, T. 25 S., R. 45 E., M. D.	Unsurveyed	------------	640	640
Sec. 16, T. 26 S., R. 45 E., M. D.	Unsurveyed	------------	640	640
Sec. 36, T. 26 S., R. 45 E., M. D.	Unsurveyed	------------	640	640
Sec. 16, T. 27 S., R. 45 E., M. D.	Unsurveyed	------------	640	640
Sec. 36, T. 27 S., R. 45 E., M. D.	Unsurveyed	------------	640	640
Sec. 16, T. 28 S., R. 45 E., M. D.	Unsurveyed	------------	640	640
Sec. 36, T. 28 S., R. 45 E., M. D.	Unsurveyed	------------	640	640
Sec. 16, T. 29 S., R. 45 E., M. D.	Unsurveyed	------------	640	640
Sec. 36, T. 29 S., R. 45 E., M. D.	Unsurveyed	------------	640	640
Sec. 36, T. 30 S., R. 45 E., M. D.	Surveyed	------------	640	640
Sec. 16, T. 31 S., R. 45 E., M. D.	Unsurveyed	------------	640	640
Sec. 36, T. 31 S., R. 45 E., M. D.	Unsurveyed	------------	640	640
Sec. 16, T. 32 S., R. 45 E., M. D.	Unsurveyed	------------	640	640
Sec. 36, T. 32 S., R. 45 E., M. D.	Unsurveyed	------------	640	640
Sec. 16, T. 14 S., R. 46 E., M. D.	Surveyed	------------	640	640
Sec. 16, T. 15 S., R. 46 E., M. D.	Surveyed	------------	640	640
Sec. 36, T. 15 S., R. 46 E., M. D.	Surveyed	------------	122.36	122.36
Sec. 16, T. 16 S., R. 46 E., M. D.	Surveyed	------------	640	640
Sec. 36, T. 16 S., R. 46 E., M. D.	Surveyed	------------	17.32	17.32
Sec. 16, T. 17 S., R. 46 E., M. D.	Unsurveyed	------------	640	640
Sec. 36, T. 17 S., R. 46 E., M. D.	Unsurveyed	------------	640	640
Sec. 16, T. 18 S., R. 46 E., M. D.	Unsurveyed	------------	640	640
Sec. 36, T. 18 S., R. 46 E., M. D.	Unsurveyed	------------	640	640
Sec. 16, T. 19 S., R. 46 E., M. D.	Unsurveyed	------------	640	640
Sec. 36, T. 19 S., R. 46 E., M. D.	Unsurveyed	------------	640	640
Sec. 16, T. 20 S., R. 46 E., M. D.	Unsurveyed	------------	640	640
Sec. 36, T. 20 S., R. 46 E., M. D.	Unsurveyed	------------	640	640
Sec. 16, T. 21 S., R. 46 E., M. D.	Unsurveyed	------------	640	640
Sec. 36, T. 21 S., R. 46 E., M. D.	Unsurveyed	------------	597.01	597.01
Sec. 16, T. 22 S., R. 46 E., M. D.	Unsurveyed	------------	640	640
Sec. 36, T. 22 S., R. 46 E., M. D.	Unsurveyed	------------	640	640
Sec. 16, T. 23 S., R. 46 E., M. D.	Unsurveyed	------------	640	640
Sec. 36, T. 23 S., R. 46 E., M. D.	Unsurveyed	------------	640	640
Sec. 16, T. 24 S., R. 46 E., M. D.	Unsurveyed	------------	640	640
Sec. 36, T. 24 S., R. 46 E., M. D.	Unsurveyed	------------	640	640
Sec. 16, T. 25 S., R. 46 E., M. D.	Unsurveyed	------------	640	640
Sec. 36, T. 26 S., R. 46 E., M. D.	Unsurveyed	------------	640	640
Sec. 16, T. 27 S., R. 46 E., M. D.	Unsurveyed	------------	640	640
Sec. 36, T. 27 S., R. 46 E., M. D.	Unsurveyed	------------	640	640
Sec. 16, T. 28 S., R. 46 E., M. D.	Unsurveyed	------------	640	640
Sec. 36, T. 28 S., R. 46 E., M. D.	Unsurveyed	------------	640	640
Sec. 16, T. 29 S., R. 46 E., M. D.	Unsurveyed	------------	640	640
Sec. 36, T. 29 S., R. 46 E., M. D.	Unsurveyed	------------	640	640
Sec. 16, T. 30 S., R. 46 E., M. D.	Unsurveyed	------------	640	640
Sec. 36, T. 30 S., R. 46 E., M. D.	Unsurveyed	------------	640	640
Sec. 16, T. 13 S., R. 47 E., M. D.	Unsurveyed	------------	360	360
Sec. 16, T. 23 S., R. 47 E., M. D.	Surveyed	------------	111	111
Sec. 16, T. 25 S., R. 47 E., M. D.	Surveyed	------------	640	640
Sec. 36, T. 25 S., R. 47 E., M. D.	Unsurveyed	------------	368.99	368.99
Sec. 16, T. 27 S., R. 47 E., M. D.	Unsurveyed	------------	375.80	375.80
Sec 36, T. 2 N., R. 1 E., S. B.	Surveyed	.71	------------	.71
Sec. 36, T. 4 N., R. 1 E., S. B.	Surveyed	------------	640	640
Sec. 16, T. 6 N., R 1 E., S. B.	Unsurveyed	------------	640	640

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 36, T. 6 N., R. 1 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 7 N., R. 1 E., S. B.	Surveyed		320	320
Sec. 36, T. 7 N., R. 1 E., S. B.	Surveyed		640	640
Sec. 16, T. 8 N., R. 1 E., S. B.	Surveyed		640	640
Sec. 16, T. 11 N., R. 1 E., S. B.	Surveyed		480	480
Sec 36, T. 11 N., R. 1 E., S. B.	Surveyed		640	640
Sec. 16, T. 12 N., R. 1 E., S. B.	Surveyed		640	640
Sec 36, T. 12 N., R. 1 E., S. B.	Surveyed		640	640
Sec. 36, T. 13 N., R. 1 E., S. B.	Surveyed		640	640
Sec. 36, T. 15 N., R. 1 E., S. B.	Surveyed		640	640
Sec. 16, T. 16 N., R. 1 E., S. B.	Surveyed		320	320
Sec. 36, T. 16 N., R. 1 E., S. B.	Surveyed		640	640
Sec. 16, T. 17 N., R. 1 E., S. B.	Surveyed		640	640
Sec 36, T. 17 N., R. 1 E., S. B.	Surveyed		320	320
Sec. 16, T. 18 N., R. 1 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 18 N., R. 1 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 19 N., R. 1 E., S. B.	Surveyed		640	640
Sec. 36, T. 19 N., R. 1 E., S. B.	Surveyed		640	640
Sec. 16, T. 20 N., R. 1 E., S. B.	Surveyed		640	640
Sec. 36, T. 20 N., R. 1 E., S. B.	Surveyed		640	640
Sec. 16, T. 21 N., R. 1 E., S. B.	Surveyed		640	640
Sec. 36, T. 21 N., R. 1 E., S. B.	Surveyed		640	640
Sec. 16, T. 22 N., R. 1 E., S. B.	Surveyed		640	640
Sec. 36, T. 22 N., R. 1 E., S. B.	Surveyed		640	640
Sec 16, T. 23 N., R. 1 E., S. B.	Surveyed		560	560
Sec. 36, T. 23 N., R. 1 E., S. B.	Surveyed		640	640
Sec. 16, T. 24 N., R. 1 E., S. B.	Surveyed		519.85	519.85
Sec. 36, T. 24 N., R. 1 E., S. B.	Surveyed		520	520
Sec. 16, T. 25 N., R. 1 E., S. B.	Surveyed		640	640
Sec. 36, T. 25 N., R. 1 E., S. B.	Surveyed		640	640
Sec. 16, T. 26 N., R. 1 E., S. B.	Surveyed		640	640
Sec. 36, T. 26 N., R. 1 E., S. B.	Surveyed		640	640
Sec. 36, T. 27 N., R. 1 E., S. B.	Surveyed		84.93	84.93
Sec. 16, T. 28 N., R. 1 E., S. B.	Surveyed		640	640
Sec. 36, T. 28 N., R. 1 E., S. B.	Surveyed		320	320
Sec. 16, T. 29 N., R. 1 E., S. B.	Surveyed		640	640
Sec. 36, T. 29 N., R. 1 E., S. B.	Surveyed		640	640
Sec. 36, T. 30 N., R. 1 E., S. B.	Surveyed		6.39	6.39
Sec 36, T. 1 N., R. 2 E., S. B.	Surveyed	81.08		81.08
Sec. 16, T. 5 N., R. 2 E., S. B.	Surveyed		320	320
Sec 36, T. 5 N., R. 2 E., S. B.	Surveyed		640	640
Sec 16, T. 6 N., R. 2 E., S. B.	Surveyed		640	640
Sec. 36, T. 6 N., R. 2 E., S. B.	Surveyed		160	160
Sec. 16, T. 7 N., R. 2 E., S. B.	Surveyed		640	640
Sec. 16, T. 8 N., R. 2 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 8 N., R. 2 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 11 N., R. 2 E., S. B.	Surveyed		560	560
Sec. 36, T. 12 N., R. 2 E., S. B.	Surveyed		640	640
Sec 36, T. 13 N., R. 2 E., S. B.	Surveyed		640	640
Sec. 36, T. 14 N., R. 2 E., S. B.	Surveyed		320	320
Sec. 36, T. 15 N., R. 2 E., S. B.	Surveyed		640	640
Sec. 16, T. 16 N., R. 2 E., S. B.	Surveyed		640	640
Sec. 16, T. 15 N., R. 2 E., S. B.	Surveyed		640	640
Sec. 36, T. 16 N., R. 2 E., S. B.	Surveyed		640	640
Sec. 16, T. 17 N., R. 2 E., S. B.	Surveyed		640	640
Sec. 36, T. 17 N., R. 2 E., S. B.	Surveyed		640	640
Sec. 16, T. 18 N., R. 2 E., S. B.	Surveyed		640	640
Sec. 36, T. 18 N., R. 2 E., S. B.	Surveyed		640	640
Sec. 16, T. 19 N., R. 2 E., S. B.	Surveyed		640	640
Sec. 36, T. 19 N., R. 2 E., S. B.	Surveyed		640	640

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 16, T. 20 N., R. 2 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 20 N., R. 2 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 21 N., R. 2 E., S. B.	Surveyed		640	640
Sec. 36, T. 21 N., R. 2 E., S. B.	Surveyed		640	640
Sec. 16, T. 22 N., R. 2 E., S. B.	Surveyed		640	640
Sec. 36, T. 22 N., R. 2 E., S. B.	Surveyed		640	640
Sec. 16, T. 23 N., R. 2 E., S. B.	Surveyed		640	640
Sec. 36, T. 23 N., R. 2 E., S. B.	Surveyed		640	640
Sec. 16, T. 24 N., R. 2 E., S. B.	Surveyed		639.54	639.54
Sec. 36, T. 24 N., R. 2 E., S. B.	Surveyed		480	480
Sec. 16, T. 25 N., R. 2 E., S. B.	Surveyed		392.43	392.43
Sec. 36, T. 25 N., R. 2 E., S. B.	Surveyed		640	640
Sec. 36, T. 26 N., R. 2 E., S. B.	Surveyed		560	560
Sec. 16, T. 27 N., R. 2 E., S. B.	Surveyed		640	640
Sec. 36, T. 27 N., R. 2 E., S. B.	Surveyed		640	640
Sec. 16, T. 28 N., R. 2 E., S. B.	Surveyed		640	640
Sec. 36, T. 28 N., R. 2 E., S. B.	Surveyed		640	640
Sec. 16, T. 29 N., R. 2 E., S. B.	Surveyed		640	640
Sec. 36, T. 29 N., R. 2 E., S. B.	Surveyed		640	640
Sec. 16, T. 30 N., R. 2 E., S. B.	Surveyed		640	640
Sec. 36, T. 1 N., R. 3 E., S. B.	Surveyed	.64		.64
Sec. 36, T. 2 N., R. 3 E., S. B.	Surveyed	.02		.02
Sec. 16, T. 3 N., R. 3 E., S. B.	Surveyed	640		640
Sec. 36, T. 4 N., R. 3 E., S. B.	Surveyed		160	160
Sec. 16, T. 5 N., R. 3 E., S. B.	Surveyed		480	480
Sec. 36, T. 5 N., R. 3 E., S. B.	Surveyed		480	480
Sec. 16, T. 6 N., R. 3 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 6 N., R. 3 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 7 N., R. 3 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 7 N., R. 3 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 8 N., R. 3 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 8 N., R. 3 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 12 N., R. 3 E., S. B.	Surveyed		640	640
Sec. 36, T. 12 N., R. 3 E., S. B.	Surveyed		640	640
Sec. 16, T. 13 N., R. 3 E., S. B.	Surveyed		640	640
Sec. 16, T. 14 N., R. 3 E., S. B.	Surveyed		640	640
Sec. 36, T. 14 N., R. 3 E., S. B.	Surveyed		160	160
Sec. 16, T. 15 N., R. 3 E., S. B.	Surveyed		640	640
Sec. 36, T. 15 N., R. 3 E., S. B.	Surveyed		640	640
Sec. 16, T. 16 N., R. 3 E., S. B.	Surveyed		640	640
Sec. 36, T. 16 N., R. 3 E., S. B.	Surveyed		640	640
Sec. 16, T. 17 N., R. 3 E., S. B.	Surveyed		640	640
Sec. 36, T. 17 N., R. 3 E., S. B.	Surveyed		640	640
Sec. 16, T. 18 N., R. 3 E., S. B.	Surveyed		640	640
Sec. 36, T. 18 N., R. 3 E., S. B.	Surveyed		640	640
Sec. 16, T. 19 N., R. 3 E., S. B.	Surveyed		640	640
Sec. 36, T. 19 N., R. 3 E., S. B.	Surveyed		640	640
Sec. 16, T. 20 N., R. 3 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 20 N., R. 3 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 21 N., R. 3 E., S. B.	Surveyed		640	640
Sec. 36, T. 21 N., R. 3 E., S. B.	Surveyed		640	640
Sec. 16, T. 22 N., R. 3 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 22 N., R. 3 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 23 N., R. 3 E., S. B.	Surveyed		160	160
Sec. 36, T. 23 N., R. 3 E., S. B.	Surveyed		160	160
Sec. 16, T. 24 N., R. 3 E., S. B.	Surveyed		559.77	559.77
Sec. 36, T. 24 N., R. 3 E., S. B.	Surveyed		560	560
Sec. 16, T. 25 N., R. 3 E., S. B.	Surveyed		560	560
Sec. 36, T. 25 N., R. 3 E., S. B.	Surveyed		560	560
Sec. 16, T. 26 N., R. 3 E., S. B.	Surveyed		640	640

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 36, T. 26 N., R. 3 E., S. B.	Surveyed		640	640
Sec 16, T. 27 N., R. 3 E., S. B.	Surveyed		640	640
Sec 36, T. 27 N., R. 3 E., S. B.	Surveyed		320	320
Sec 16, T. 28 N., R. 3 E., S. B.	Surveyed		640	640
Sec. 36, T. 28 N., R. 3 E., S. B.	Surveyed		320	320
Sec. 16, T. 1 N., R. 4 E., S. B.	Surveyed		.08	.08
Sec. 16, T. 2 N., R. 4 E., S. B.	Unsurveyed		.10	.10
Sec. 16, T. 3 N., R. 4 E., S. B.	Unsurveyed		640	640
Sec 16, T. 4 N., R. 4 E., S. B.	Unsurveyed		480	480
Sec 36, T. 4 N., R. 4 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 5 N., R. 4 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 5 N., R. 4 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 6 N., R. 4 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 7 N., R. 4 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 7 N., R. 4 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 10 N., R. 4 E., S. B.	Surveyed		640	640
Sec 16, T. 12 N., R. 4 E., S. B.	Surveyed		640	640
Sec 36, T. 12 N., R. 4 E., S. B.	Surveyed		640	640
Sec 16, T. 13 N., R. 4 E., S. B.	Surveyed		640	640
Sec. 36, T. 13 N., R. 4 E., S. B.	Surveyed		640	640
Sec. 16, T. 14 N., R. 4 E., S. B.	Surveyed		640	640
Sec 36, T. 14 N., R. 4 E., S. B.	Surveyed		640	640
Sec 16, T. 15 N., R. 4 E., S. B.	Surveyed		640	640
Sec 36, T. 15 N., R. 4 E., S. B.	Surveyed		640	640
Sec. 16, T. 16 N., R. 4 E., S. B.	Surveyed		160	160
Sec. 36, T. 16 N., R. 4 E., S. B.	Surveyed		320	320
Sec 16, T. 17 N., R. 4 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 17 N., R. 4 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 18 N., R. 4 E., S. B.	Surveyed		640	640
Sec 36, T. 18 N., R. 4 E., S. B.	Surveyed		640	640
Sec 16, T. 19 N., R. 4 E., S. B.	Surveyed		640	640
Sec 36, T. 19 N., R. 4 E., S. B.	Surveyed		640	640
Sec 16, T. 20 N., R. 4 E., S. B.	Surveyed		640	640
Sec. 36, T. 20 N., R. 4 E., S. B.	Surveyed		280	280
Sec. 16, T. 21 N., R. 4 E., S. B.	Surveyed		640	640
Sec. 36, T. 21 N., R. 4 E., S. B.	Surveyed		640	640
Sec 16, T. 22 N., R. 4 E., S. B.	Surveyed		640	640
Sec. 36, T. 22 N., R. 4 E., S. B.	Surveyed		640	640
Sec. 16, T. 23 N., R. 4 E., S. B.	Surveyed		640	640
Sec. 36, T. 23 N., R. 4 E., S. B.	Surveyed		640	640
Sec 16, T. 24 N., R. 4 E., S. B.	Surveyed		560	560
Sec. 36, T. 24 N., R. 4 E., S. B.	Surveyed		560	560
Sec. 16, T. 25 N., R. 4 E., S. B.	Surveyed		640	640
Sec. 36, T. 25 N., R. 4 E., S. B.	Surveyed		640	640
Sec. 16, T. 26 N., R. 4 E., S. B.	Surveyed		640	640
Sec. 36, T. 26 N., R. 4 E., S. B.	Surveyed		640	640
Sec. 16, T. 27 N., R. 4 E., S. B.	Surveyed		640	640
Sec. 16, T. 1 N., R. 5 E., S. B.	Surveyed		600	600
Sec. 36, T. 1 N., R. 5 E., S. B.	Surveyed		161.51	161.51
Sec. 16, T. 2 N., R. 5 E., S. B.	Surveyed		640	640
Sec. 36, T. 2 N., R. 5 E., S. B.	Surveyed		640	640
Sec. 16, T. 3 N., R. 5 E., S. B.	Surveyed		640	640
Sec. 36, T. 3 N., R. 5 E., S. B.	Surveyed		640	640
Sec. 16, T. 4 N., R. 5 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 4 N., R. 5 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 5 N., R. 5 E., S. B.	Surveyed		640	640
Sec. 36, T. 5 N., R. 5 E., S. B.	Surveyed		640	640
Sec. 16, T. 6 N., R. 5 E., S. B.	Surveyed		640	640
Sec. 36, T. 6 N., R. 5 E., S. B.	Surveyed		640	640
Sec. 16, T. 7 N., R. 5 E., S. B.	Surveyed		640	640

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 36, T. 7 N., R. 5 E., S. B.	Surveyed		640	640
Sec. 16, T. 10 N., R. 5 E., S. B.	Surveyed		640	640
Sec. 36, T. 10 N., R. 5 E., S. B.	Surveyed		640	640
Sec. 36, T. 11 N., R. 5 E., S. B.	Surveyed		640	640
Sec. 16, T. 12 N., R. 5 E., S. B.	Surveyed		640	640
Sec. 36, T. 12 N., R. 5 E., S. B.	Surveyed		640	640
Sec. 16, T. 13 N., R. 5 E., S. B.	Surveyed		640	640
Sec. 36, T. 13 N., R. 5 E., S. B.	Surveyed		640	640
Sec. 16, T. 14 N., R. 5 E., S. B.	Surveyed		640	640
Sec. 36, T. 14 N., R. 5 E., S. B.	Surveyed		640	640
Sec. 16, T. 15 N., R. 5 E., S. B.	Surveyed		640	640
Sec. 36, T. 15 N., R. 5 E., S. B.	Surveyed		640	640
Sec. 16, T. 16 N., R. 5 E., S. B.	Surveyed		320	320
Sec. 36, T. 16 N., R. 5 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 17 N., R. 5 E., S. B.	Surveyed		640	640
Sec. 36, T. 17 N., R. 5 E., S. B.	Surveyed		640	640
Sec 16, T. 18 N., R. 5 E., S. B.	Surveyed		160	160
Sec. 36, T. 18 N., R. 5 E., S. B.	Surveyed		640	640
Sec. 16, T. 19 N., R. 5 E., S. B.	Surveyed		640	640
Sec 36, T. 19 N., R. 5 E., S. B.	Surveyed		640	640
Sec. 16, T. 20 N., R. 5 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 20 N., R. 5 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 21 N., R 5 E., S. B.	Surveyed		640	640
Sec. 36, T. 21 N., R. 5 E., S. B.	Surveyed		640	640
Sec 16, T. 22 N., R. 5 E, S. B.	Surveyed		640	640
Sec. 36, T. 22 N., R. 5 E., S. B.	Surveyed		640	640
Sec. 16, T. 23 N., R. 5 E., S. B.	Surveyed		640	640
Sec. 36, T. 23 N., R. 5 E., S. B.	Surveyed		640	640
Sec. 16, T. 24 N., R 5 E., S. B.	Surveyed		640	640
Sec. 36, T. 24 N., R. 5 E., S. B.	Surveyed		640	640
Sec. 36, T. 25 N., R. 5 E., S. B.	Surveyed		640	640
Sec. 36, T. 26 N., R. 5 E., S. B.	Surveyed		640	640
Sec. 36, T. 1 N., R. 6 E., S. B.	Surveyed		40	40
Sec. 36, T. 3 N., R. 6 E., S. B.	Surveyed		160	160
Sec. 16, T. 4 N., R. 6 E., S. B.	Surveyed		640	640
Sec. 36, T. 4 N., R. 6 E., S. B.	Surveyed		640	640
Sec. 16, T. 5 N., R. 6 E., S. B.	Surveyed		640	640
Sec. 36, T. 5 N., R. 6 E., S. B.	Surveyed		640	640
Sec. 16, T. 6 N., R. 6 E., S. B.	Surveyed		640	640
Sec. 36, T. 6 N., R. 6 E., S. B.	Surveyed		640	640
Sec. 16, T. 7 N., R. 6 E., S. B.	Surveyed		480	480
Sec. 36, T. 7 N., R. 6 E., S. B.	Surveyed		640	640
Sec. 16, T. 9 N., R. 6 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 9 N., R. 6 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 10 N., R. 6 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 10 N., R. 6 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 11 N., R. 6 E., S. B.	Surveyed		640	640
Sec. 16, T. 12 N., R. 6 E., S. B.	Surveyed		640	640
Sec 36, T. 12 N., R. 6 E., S. B.	Surveyed		640	640
Sec. 16, T. 13 N., R. 6 E., S. B.	Surveyed		160	160
Sec 36, T. 13 N., R. 6 E., S. B.	Surveyed		160	160
Sec. 16, T. 14 N., R. 6 E., S. B.	Surveyed		640	640
Sec. 36, T. 14 N., R. 6 E., S. B.	Surveyed		640	640
Sec. 16, T. 15 N., R. 6 E., S. B.	Surveyed		640	640
Sec 36, T. 15 N., R. 6 E., S. B.	Surveyed		640	640
Sec. 16, T. 16 N., R 6 E., S. B.	Surveyed		480	480
Sec 36, T. 16 N., R. 6 E, S. B.	Surveyed		640	640
Sec. 16, T. 17 N., R. 6 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 17 N., R. 6 E., S. B.	Unsurveyed		640	640
Sec 16, T. 18 N., R. 6 E., S. B.	Surveyed		640	640

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 36, T. 18 N., R. 6 E., S. B.	Surveyed		640	640
Sec. 16, T. 19 N., R. 6 E., S. B.	Surveyed		640	640
Sec. 36, T. 19 N., R 6 E, S. B.	Surveyed		640	640
Sec. 16, T. 20 N., R. 6 E., S. B.	Unsurveyed		640	640
Sec 36, T. 20 N., R. 6 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 21 N., R. 6 E., S. B.	Surveyed		640	640
Sec. 16, T. 22 N., R. 6 E., S. B.	Surveyed		640	640
Sec. 36, T. 22 N., R. 6 E., S. B.	Surveyed		640	640
Sec. 16, T. 23 N., R. 6 E., S. B.	Surveyed		640	640
Sec. 36, T. 23 N., R. 6 E., S. B.	Surveyed		640	640
Sec. 16, T. 24 N., R. 6 E., S. B.	Surveyed		640	640
Sec. 36, T. 24 N., R. 6 E., S. B.	Surveyed		640	640
Sec. 16, T. 25 N., R. 6 E., S. B.	Surveyed		628.06	628.06
Sec. 36, T. 25 N., R. 6 E., S. B.	Surveyed		640	640
Sec. 16, T. 4 N., R. 7 E., S. B.	Surveyed		640	640
Sec. 36, T. 4 N., R. 7 E., S. B.	Surveyed		640	640
Sec. 16, T. 5 N., R. 7 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 5 N., R. 7 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 6 N., R. 7 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 6 N., R. 7 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 7 N., R. 7 E., S. B.	Surveyed		640	640
Sec. 36, T. 7 N., R. 7 E., S. B.	Surveyed		640	640
Sec. 16, T. 8 N., R. 7 E., S. B.	Surveyed		640	640
Sec. 36, T. 8 N., R. 7 E., S. B.	Surveyed		480	480
Sec. 16, T. 9 N., R. 7 E., S. B.	Surveyed		160	160
Sec. 36, T. 9 N., R. 7 E., S. B.	Surveyed		640	640
Sec. 16, T. 10 N., R. 7 E., S. B.	Surveyed		160	160
Sec. 36, T. 10 N., R. 7 E., S. B.	Surveyed		320	320
Sec. 16, T. 11 N., R. 7 E., S. B.	Surveyed		24.26	24.26
Sec. 16, T. 12 N., R. 7 E., S. B.	Surveyed		640	640
Sec. 36, T. 12 N., R. 7 E., S. B.	Surveyed		640	640
Sec. 16, T. 13 N., R. 7 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 13 N., R. 7 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 14 N., R. 7 E. S. B.	Surveyed		640	640
Sec. 36, T. 14 N., R. 7 E., S. B.	Surveyed		640	640
Sec. 16, T. 15 N., R. 7 E., S. B.	Surveyed		640	640
Sec. 36, T. 15 N., R. 7 E., S. B.	Surveyed		640	640
Sec. 36, T. 16 N., R. 7 E., S. B.	Surveyed		640	640
Sec. 16, T. 17 N., R. 7 E., S. B.	Surveyed		640	640
Sec. 36, T. 17 N., R. 7 E., S. B.	Surveyed		640	640
Sec. 16, T. 18 N., R. 7 E., S. B.	Surveyed		640	640
Sec 36, T. 18 N., R. 7 E., S. B.	Surveyed		640	640
Sec 16, T. 19 N., R. 7 E., S. B.	Surveyed		640	640
Sec 36, T. 19 N., R. 7 E., S. B.	Surveyed		640	640
Sec 16, T. 20 N., R. 7 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 20 N., R. 7 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 21 N., R. 7 E., S. B.	Surveyed		40.30	40.30
Sec. 36, T. 21 N., R. 7 E., S. B.	Surveyed		640	640
Sec. 16, T. 22 N., R. 7 E., S. B.	Surveyed		640	640
Sec. 36, T. 22 N., R. 7 E., S. B.	Surveyed		640	640
Sec. 16, T. 23 N., R. 7 E., S. B.	Surveyed		640	640
Sec. 36, T. 23 N., R. 7 E., S. B.	Surveyed		640	640
Sec. 16, T. 24 N., R. 7 E., S. B.	Surveyed		640	640
Sec. 36, T. 24 N., R. 7 E., S. B.	Surveyed		640	640
Sec. 36, T. 3 N., R. 8 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 4 N., R. 8 E., S. B.	Unsurveyed		640	640
Sec 36, T. 4 N., R. 8 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 5 N., R. 8 E., S. B.	Unsurveyed		640	640
Sec 36, T. 5 N., R. 8 E., S. B.	Unsurveyed		640	640
Sec 16, T. 6 N., R. 8 E., S. B.	Unsurveyed		640	640

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 36, T. 6 N., R. 8 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 7 N., R. 8 E., S. B.	Surveyed		640	640
Sec. 16, T. 8 N., R. 8 E., S. B.	Surveyed		640	640
Sec. 16, T. 9 N., R. 8 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 9 N., R. 8 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 10 N., R. 8 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 10 N., R. 8 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 11 N., R. 8 E., S. B.	Surveyed		640	640
Sec. 16, T. 12 N., R. 8 E., S. B.	Surveyed		640	640
Sec. 16, T. 13 N., R. 8 E., S. B.	Surveyed		640	640
Sec. 36, T. 13 N., R. 8 E., S. B.	Surveyed		640	640
Sec. 16, T. 14 N., R. 8 E., S. B.	Surveyed		640	640
Sec 36, T. 14 N., R. 8 E., S. B.	Surveyed		320	320
Sec. 36, T. 15 N., R. 8 E., S. B.	Surveyed		640	640
Sec 16, T. 16 N., R. 8 E., S. B.	Surveyed		640	640
Sec. 36, T. 16 N., R. 8 E., S. B.	Surveyed		640	640
Sec 16, T. 17 N., R. 8 E., S. B.	Surveyed		640	640
Sec 36, T. 17 N., R. 8 E., S. B.	Surveyed		640	640
Sec. 16, T. 18 N., R. 8 E., S. B.	Surveyed		640	640
Sec. 36, T. 18 N., R. 8 E., S. B.	Surveyed		640	640
Sec. 16, T. 19 N., R. 8 E., S. B.	Surveyed		640	640
Sec. 36, T. 19 N., R. 8 E., S. B.	Surveyed		640	640
Sec. 16, T. 20 N., R. 8 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 20 N., R. 8 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 21 N., R. 8 E., S. B.	Surveyed		640	640
Sec. 36, T. 21 N., R. 8 E., S. B.	Surveyed		640	640
Sec. 16, T. 22 N., R. 8 E., S. B.	Surveyed		640	640
Sec. 36, T. 22 N., R. 8 E., S. B.	Surveyed		640	640
Sec. 16, T. 23 N., R. 8 E., S. B.	Surveyed		640	640
Sec. 36, T. 23 N., R. 8 E., S. B.	Surveyed		640	640
Sec. 36, T. 1 N., R. 9 E., S. B.	Surveyed		640	640
Sec. 16, T. 2 N., R. 9 E., S. B.	Surveyed		640	640
Sec. 36, T. 2 N., R. 9 E., S. B.	Surveyed		640	640
Sec. 16, T. 3 N., R. 9 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 3 N., R. 9 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 4 N., R. 9 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 4 N., R. 9 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 5 N., R. 9 E., S. B.	Surveyed		640	640
Sec. 36, T. 5 N., R. 9 E., S. B.	Surveyed		640	640
Sec. 16, T. 6 N., R. 9 E., S. B.	Surveyed		640	640
Sec. 36, T. 6 N., R. 9 E., S. B.	Surveyed		640	640
Sec. 36, T. 7 N., R. 9 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 8 N., R. 9 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 8 N., R. 9 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 9 N., R. 9 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 9 N., R. 9 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 10 N., R. 9 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 10 N., R. 9 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 11 N., R. 9 E., S. B.	Surveyed		640	640
Sec. 16, T. 12 N., R. 9 E., S. B.	Surveyed		640	640
Sec. 36, T. 12 N., R. 9 E., S. B.	Surveyed		640	640
Sec. 16, T. 13 N., R. 9 E., S. B.	Surveyed		640	640
Sec. 36, T. 13 N., R. 9 E., S. B.	Surveyed		640	640
Sec. 16, T. 14 N., R. 9 E., S. B.	Surveyed		640	640
Sec. 36, T. 14 N., R. 9 E., S. B.	Surveyed		640	640
Sec. 16, T. 15 N., R. 9 E., S. B.	Surveyed		320	320
Sec. 36, T. 15 N., R. 9 E., S. B.	Surveyed		640	640
Sec. 16, T. 16 N., R. 9 E., S. B.	Surveyed		640	640
Sec. 36, T. 16 N,, R. 9 E., S. B.	Surveyed		640	640
Sec. 16, T. 17 N., R. 9 E., S. B.	Surveyed		640	640

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 36, T. 17 N., R. 9 E., S. B.	Surveyed		640	640
Sec. 16, T. 18 N., R. 9 E., S. B.	Surveyed		640	640
Sec. 36, T. 18 N., R. 9 E., S. B.	Surveyed		640	640
Sec. 16, T. 19 N., R. 9 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 19 N., R. 9 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 20 N, R. 9 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 20 N., A. 9 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 21 N., R. 9 E., S. B.	Surveyed		640	640
Sec. 36, T. 21 N., R. 9 E., S. B.	Surveyed		640	640
Sec. 16, T. 22 N., R. 9 E., S. B.	Surveyed		640	640
Sec. 36, T. 22 N., R. 9 E., S. B.	Surveyed		640	640
Sec. 16, T. 23 N., R. 9 E., S. B.	Surveyed		5.99	5.99
Sec. 36, T. 2 N., R. 10 E., S. B.	Surveyed		640	640
Sec 16, T. 3 N., R. 10 E., S. B.	Unsurveyed		640	640
Sec 36, T. 3 N., R. 10 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 4 N., R. 10 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 4 N., R. 10 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 5 N., R. 10 E., S. B.	Surveyed		640	640
Sec. 36, T. 5 N., R. 10 E., S. B.	Surveyed		640	640
Sec. 16, T. 6 N., R. 10 E., S. B.	Surveyed		640	640
Sec. 16, T 7 N., R. 10 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 7 N., R. 10 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 8 N., R. 10 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 8 N., R. 10 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 9 N., R. 10 E., S. B.	Surveyed		640	640
Sec. 36, T. 9 N., R. 10 E., S. B.	Surveyed		640	640
Sec. 16, T. 10 N., R. 10 E., S. B.	Surveyed		640	640
Sec. 36, T. 10 N., R. 10 E., S. B.	Surveyed		640	640
Sec. 16, T. 11 N., R. 10 E., S. B.	Surveyed		640	640
Sec. 16, T. 12 N., R. 10 E., S. B.	Surveyed		640	640
Sec. 16, T. 13 N., R. 10 E., S. B.	Surveyed		640	640
Sec. 36, T. 13 N., R. 10 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 14 N., R. 10 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 14 N., R. 10 E., S. B.	Surveyed		640	640
Sec. 16, T. 15 N., R. 10 E., S. B.	Surveyed		640	640
Sec. 36, T. 15 N., R. 10 E., S. B.	Surveyed		640	640
Sec. 16, T. 16 N., R. 10 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 16 N., R. 10 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 17 N., R. 10 E., S. B.	Surveyed		640	640
Sec. 36, T. 17 N., R. 10 E., S. B.	Surveyed		640	640
Sec. 16, T. 18 N., R. 10 E., S. B.	Surveyed		640	640
Sec. 36, T. 18 N., R. 10 E., S. B.	Surveyed		640	640
Sec. 16, T. 19 N., R. 10 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 19 N., R. 10 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 20 N., R. 10 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 20 N., R. 10 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 21 N., R. 10 E., S. B.	Surveyed		640	640
Sec. 36, T. 21 N., R. 10 E., S. B.	Surveyed		640	640
Sec. 16, T. 22 N., R. 10 E., S. B.	Surveyed		5.22	5.22
Sec. 36, T. 1 N., R. 11 E., S. B.	Surveyed		640	640
Sec. 16, T. 2 N., R. 11 E., S. B.	Surveyed		640	640
Sec. 36, T. 2 N., R. 11 E., S. B.	Surveyed		640	640
Sec. 16, T. 3 N., R. 11 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 3 N., R. 11 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 4 N., R. 11 E., S. B.	Surveyed		640	640
Sec. 36, T. 4 N., R. 11 E., S. B.	Surveyed		640	640
Sec. 16, T. 5 N., R. 11 E., S. B.	Surveyed		640	640
Sec. 36, T. 5 N., R. 11 E., S. B.	Surveyed		640	640
Sec. 16, T. 6 N., R. 11 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 6 N., R. 11 E., S. B.	Unsurveyed		640	640

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 16, T. 7 N., R. 11 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 7 N., R. 11 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 8 N., R. 11 E., S. B.	Unsurveyed		640	640
Sec 36, T. 8 N., R. 11 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 9 N., R. 11 E., S. B.	Surveyed		640	640
Sec. 36, T. 9 N., R. 11 E., S. B.	Surveyed		640	640
Sec. 16, T. 10 N., R. 11 E., S. B.	Surveyed		640	640
Sec. 36. T. 10 N., R. 11 E., S. B.	Surveyed		640	640
Sec. 16, T. 11 N.. R. 11 E., S. B.	Surveyed		640	640
Sec. 16, T. 11 N., R. 11 E., S. B.	Surveyed		640	640
Sec. 16, T. 12 N., R. 11 E., S. B.	Surveyed		640	640
Sec. 36, T. 12 N., R. 11 E., S. B.	Surveyed		640	640
Sec. 16, T. 13 N., R. 11 E., S. B.	Surveyed		640	640
Sec. 36, T. 13 N., R. 11 E., S. B.	Surveyed		640	640
Sec. 16, T. 14 N., R. 11 E., S. B.	Surveyed		640	640
Sec. 36, T. 14 N., R. 11 E., S. B.	Surveyed		640	640
Sec. 16, T. 15 N., R. 11 E., S. B.	Surveyed		640	640
Sec. 36, T. 15 N., R. 11 E., S. B.	Surveyed		640	640
Sec 16, T. 16 N., R. 11 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 16 N., R. 11 E., S. B.	Surveyed		640	640
Sec. 16, T. 17 N., R. 11 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 17 N., R. 11 E., S. B.	Surveyed		640	640
Sec. 16, T. 18 N., R. 11 E., S. B.	Surveyed		640	640
Sec. 36, T. 18 N., R. 11 E., S. B.	Surveyed		640	640
Sec. 16, T. 19 N., R. 11 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 19 N., R. 11 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 20 N., R. 11 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 20 N., R. 11 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 21 N., R. 11 E., S. B.	Surveyed		1.46	1.46
Sec. 16, T. 2 N., R. 12 E., S. B.	Surveyed		640	640
Sec. 36. T. 2 N., R. 12 E., S. B.	Surveyed		640	640
Sec 16, T. 3 N.. R. 12 E., S. B.	Surveyed		640	640
Sec. 36. T. 3 N., R. 12 E., S. B.	Surveyed		640	640
Sec. 16, T. 4 N., R. 12 E., S. B.	Surveyed		640	640
Sec. 36. T. 5 N.. R. 12 E., S. B.	Surveyed		640	640
Sec. 16, T. 6 N., R. 12 E., S. B.	Surveyed		640	640
Sec 36, T. 6 N.. R. 12 E., S. B.	Surveyed		640	640
Sec. 16. T. 7 N., R. 12 E., S. B.	Surveyed		640	640
Sec. 36, T. 7 N., R. 12 E., S. B.	Surveyed		640	640
Sec 16, T. 8 N., R. 12 E., S. B.	Surveyed		640	640
Sec. 36, T. 8 N., R. 12 E., S. B.	Surveyed		640	640
Sec. 16, T. 9 N.. R. 12 E., S. B.	Surveyed		640	640
Sec. 36, T. 9 N., R. 12 E., S. B.	Surveyed		640	640
Sec. 16, T. 10 N., R. 12 E., S. B.	Surveyed		640	640
Sec. 36, T. 10 N., R. 12 E., S. B.	Surveyed		640	640
Sec. 16, T. 11 N., R. 12 E., S. B.	Surveyed		640	640
Sec. 36, T. 11 N., R. 12 E., S. B.	Surveyed		640	640
Sec. 16, T. 12 N., R. 12 E., S. B.	Surveyed		640	640
Sec. 36, T. 12 N., R. 12 E., S. B.	Surveyed		640	640
Sec. 16, T. 13 N., R. 12 E., S. B.	Surveyed		640	640
Sec 36, T. 13 N., R. 12 E., S. B.	Surveyed		560	560
Sec. 16, T. 14 N., R. 12 E., S. B.	Surveyed		640	640
Sec. 36, T. 14 N., R. 12 E., S. B.	Surveyed		640	640
Sec 16, T. 16 N., R. 12 E., S. B.	Surveyed		640	640
Sec. 36, T. 16 N., R. 12 E., S. B.	Surveyed		640	640
Sec. 36, T. 17 N., R. 12 E., S. B.	Surveyed		640	640
Sec. 16, T. 18 N., R. 12 E., S. B.	Surveyed		640	640
Sec 36, T. 18 N., R. 12 E., S. B.	Surveyed		640	640
Sec. 36, T. 19 N., R. 12 E., S. B.	Surveyed		640	640

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec 16, T. 20 N., R. 12 E., S. B.	Surveyed		.26	.26
Sec. 16, T. 1 N., R. 13 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 1 N., R. 13 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 2 N., R. 13 E., S. B.	Surveyed		640	640
Sec. 36, T. 2 N., R. 13 E., S. B.	Surveyed		640	640
Sec. 16, T. 3 N., R. 13 E., S. B.	Surveyed		320	320
Sec. 16, T. 4 N., R. 13 E., S. B.	Surveyed		640	640
Sec. 36, T. 4 N., R. 13 E., S. B.	Surveyed		640	640
Sec. 16, T. 6 N., R. 13 E., S. B.	Surveyed		640	640
Sec. 36, T. 6 N., R. 13 E., S. B.	Surveyed		640	640
Sec. 16, T. 7 N., R. 13 E., S. B.	Surveyed		640	640
Sec. 36, T. 7 N., R. 13 E., S. B.	Surveyed		640	640
Sec. 16, T. 8 N., R. 13 E., S. B.	Surveyed		640	640
Sec. 36, T. 8 N., R. 13 E., S. B.	Surveyed		640	640
Sec. 16, T. 9 N., R. 13 E., S. B.	Surveyed		640	640
Sec. 36, T. 9 N., R. 13 E., S. B.	Surveyed		640	640
Sec. 16, T. 10 N., R. 13 E., S. B.	Surveyed		640	640
Sec. 36, T. 10 N., R. 13 E., S. B.	Surveyed		640	640
Sec. 16, T. 11 N., R. 13 E., S. B.	Surveyed		640	640
Sec. 36, T. 11, N. R. 13 E., S. B.	Surveyed		640	640
Sec. 16, T. 12 N., R. 13 E., S. B.	Surveyed		640	640
Sec. 16, T. 13 N., R. 13 E., S. B.	Surveyed		640	640
Sec. 16, T. 15 N., R. 13 E., S. B.	Surveyed		640	640
Sec. 36, T. 15 N., R. 13 E., S. B.	Surveyed		640	640
Sec. 16, T. 16 N., R. 13 E., S. B.	Surveyed		640	640
Sec. 36, T. 16 N., R. 13 E., S. B.	Surveyed		640	640
Sec. 16, T. 17 N., R. 13 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 17 N., R. 13 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 18 N., R. 13 E., S. B.	Surveyed		640	640
Sec. 36, T. 18 N., R. 13 E., S. B.	Surveyed		640	640
Sec. 16, T. 1 N., R. 14 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 1 N., R. 14 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 2 N., R. 14 E., S. B.	Surveyed		640	640
Sec. 36, T. 2 N., R. 14 E., S. B.	Surveyed		640	640
Sec. 16, T. 4 N., R. 14 E., S. B.	Surveyed		640	640
Sec. 16, T. 6 N., R. 14 E., S. B.	Surveyed		640	640
Sec. 36, T. 6 N., R. 14 E., S. B.	Surveyed		640	640
Sec. 16, T. 7 N., R. 14 E. S. B.	Surveyed		640	640
Sec. 36, T. 7 N., R. 14 E., S. B.	Surveyed		640	640
Sec. 16, T. 8 N., R. 14 E., S. B.	Surveyed		640	640
Sec. 36, T. 8 N., R. 14 E., S. B.	Surveyed		640	640
Sec. 16, T. 9 N., R. 14 E., S. B.	Surveyed		640	640
Sec. 36, T. 9 N., R. 14 E., S. B.	Surveyed		640	640
Sec. 16, T. 10 N., R. 14 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 10 N., R. 14 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 11 N., R. 14 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 11 N., R. 14 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 12 N., R. 14 E., S. B.	Surveyed		640	640
Sec. 36, T. 12 N., R. 14 E., S. B.	Surveyed		640	640
Sec. 16, T. 13 N., R. 14 E., S. B.	Surveyed		640	640
Sec. 36, T. 13 N., R. 14 E., S. B.	Surveyed		640	640
Sec. 16, T. 15 N., R. 14 E., S. B.	Surveyed		640	640
Sec. 16, T. 16 N., R. 14 E., S. B.	Surveyed		640	640
Sec. 36, T. 16 N., R. 14 E., S. B.	Surveyed		640	640
Sec. 16, T. 17 N., R. 14 E., S. B.	Surveyed		640	640
Sec. 36, T. 17 N., R. 14 E., S. B.	Surveyed		640	640
Sec. 16, T. 2 N., R. 15 E., S. B.	Surveyed		468.20	468.20
Sec. 36, T. 2 N., R. 15 E., S. B.	Surveyed		479.93	479.93
Sec. 16, T. 3 N., R. 15 E., S. B.	Surveyed		640	640
Sec. 16, T. 4 N., R. 15 E., S. B.	Surveyed		640	640

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec 36, T. 4 N., R. 15 E., S. B.	Surveyed		640	640
Sec 16, T. 5 N., R. 15 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 5 N., R. 15 E., S. B.	Surveyed		640	640
Sec. 36, T. 6 N., R. 15 E., S. B.	Surveyed		640	640
Sec. 16, T. 7 N., R. 15 E., S. B.	Surveyed		640	640
Sec. 16, T. 8 N., R. 15 E., S. B.	Surveyed		640	640
Sec. 36, T. 8 N., R. 15 E., S. B.	Surveyed		640	640
Sec. 16, T. 9 N., R. 15 E., S. B.	Surveyed		640	640
Sec. 36, T. 9 N., R. 15 E., S. B.	Surveyed		640	640
Sec. 16, T. 10 N., R. 15 E., S. B.	Surveyed		640	640
Sec. 36, T. 10 N., R. 15 E., S. B.	Surveyed		640	640
Sec. 16, T. 11 N., R. 15 E., S. B.	Surveyed		640	640
Sec. 36, T. 11 N., R. 15 E., S. B.	Surveyed		640	640
Sec. 16, T. 12 N., R. 15 E., S. B.	Surveyed		640	640
Sec. 36, T. 12 N., R. 15 E., E. B.	Surveyed		640	640
Sec. 16, T. 13 N., R. 15 E., S. B.	Surveyed		640	640
Sec. 36, T. 13 N., R. 15 E., S. B.	Surveyed		640	640
Sec. 16, T. 14 N., R. 15 E., S. B.	Surveyed		640	640
Sec. 36, T. 14 N., R. 15 E., S. B.	Surveyed		603.19	603.19
Sec. 36, T. 16 N., R. 15 E., S. B.	Surveyed		640	640
Sec. 16, T. 1 N., R. 16 E., S. B.	Surveyed		640	640
Sec. 36, T. 1 N., R. 16 E., S. B.	Surveyed		640	640
Sec. 36, T. 2 N., R. 16 E., S. B.	Surveyed		640	640
Sec. 16, T. 3 N., R. 16 E., S. B.	Surveyed		640	640
Sec. 36, T. 5 N., R. 16 E., S. B.	Surveyed		640	640
Sec. 16, T. 6 N., R. 16 E., S. B.	Surveyed		640	640
Sec. 36, T. 6 N., R. 16 E., S. B.	Surveyed		640	640
Sec. 16, T. 7 N., R. 16 E., S. B.	Surveyed		640	640
Sec. 36, T. 7 N., R. 16 E., S. B.	Surveyed		640	640
Sec. 16, T. 8 N., R. 16 E., S. B.	Surveyed		640	640
Sec. 36, T. 8 N., R. 16 E., S. B.	Surveyed		640	640
Sec. 36, T. 9 N., R. 16 E., S. B.	Surveyed		640	640
Sec. 16, T. 10 N., R. 16 E., S. B.	Surveyed		640	640
Sec. 36, T. 10 N., R. 16 E., S. B.	Surveyed		640	640
Sec. 16, T. 11 N., R. 16 E., S. B.	Surveyed		640	640
Sec. 36, T. 11 N., R. 16 E., S. B.	Surveyed		640	640
Sec. 36, T. 12 N., R. 16 E., S. B.	Surveyed		640	640
Sec. 16, T. 14 N., R. 16 E., S. B.	Surveyed		640	640
Sec. 36, T. 15 N., R. 16 E., S. B.	Surveyed		640	640
Sec. 16, T. 1 N., R. 17 E., S. B.	Unsurveyed		640	640
Sec 36, T. 1 N., R. 17 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 2 N., R. 17 E., S. B.	Surveyed		640	640
Sec. 16, T. 3 N., R. 17 E., S. B.	Surveyed		640	640
Sec. 36, T. 3 N., R. 17 E., S. B.	Surveyed		640	640
Sec. 16, T. 4 N., R. 17 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 4 N., R. 17 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 5 N., R. 17 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 5 N., R. 17 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 6 N., R. 17 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 6 N., R. 17 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 7 N., R. 17 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 7 N., R. 17 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 8 N., R. 17 E., S. B.	Surveyed		640	640
Sec. 36, T. 8 N., R. 17 E., S. B.	Surveyed		640	640
Sec. 16, T. 9 N., R. 17 E., S. B.	Surveyed		640	640
Sec. 36, T. 9 N., R. 17 E., S. B.	Surveyed		640	640
Sec. 16, T. 10 N., R. 17 E., S. B.	Surveyed		640	640
Sec. 36, T. 10 N., R. 17 E., S. B.	Surveyed		640	640
Sec. 16, T. 11 N., R. 17 E., S. B.	Surveyed		160	160
Sec. 36, T. 12 N., R. 17 E., S. B.	Surveyed		640	640

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 16, T. 13 N., R. 17 E., S. B.	Surveyed		640	640
Sec. 16, T. 14 N., R. 17 E., S. B.	Surveyed		640	640
Sec. 36, T. 14 N., R. 17 E., S. B.	Surveyed		320	320
Sec. 16, T. 1 N., R. 18 E., S. B.	Unsurveyed		640	640
Sec 36, T. 1 N., R. 18 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 2 N., R. 18 E., S. B.	Surveyed		640	640
Sec. 36, T. 2 N., R. 18 E., S. B.	Surveyed		160	160
Sec. 16, T. 4 N., R. 18 E., S. B.	Surveyed		640	640
Sec. 16, T. 5 N., R. 18 E., S. B.	Surveyed		640	640
Sec. 36, T. 5 N., R. 18 E., S. B.	Surveyed		640	640
Sec. 16, T. 6 N., R. 18 E., S. B.	Unsurveyed		640	640
Sec 36, T. 6 N., R. 18 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 7 N., R. 18 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 7 N., R. 18 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 8 N., R. 18 E., S. B.	Surveyed		640	640
Sec. 36, T. 8 N., R. 18 E., S. B.	Surveyed		640	640
Sec. 16, T. 9 N., R. 18 E., S. B.	Surveyed		640	640
Sec. 36, T. 9 N., R. 18 E., S. B.	Surveyed		640	640
Sec. 16, T. 10 N., R. 18 E., S. B.	Surveyed		640	640
Sec. 36, T. 10 N., R. 18 E., S. B.	Surveyed		640	640
Sec. 16, T. 11 N., R. 18 E., S. B.	Surveyed		640	640
Sec. 36, T. 12 N., R. 18 E., S. B.	Surveyed		640	640
Sec. 16, T. 2 N., R. 19 E., S. B.	Surveyed		640	640
Sec. 16, T. 3 N., R. 19 E., S. B.	Surveyed		640	640
Sec. 36, T. 3 N., R. 19 E., S. B.	Surveyed		640	640
Sec. 36, T. 4 N., R. 19 E., S. B.	Surveyed		640	640
Sec. 16, T. 5 N., R. 19 E., S. B.	Surveyed		640	640
Sec. 36, T. 5 N., R. 19 E., S. B.	Surveyed		640	640
Sec. 16, T. 6 N., R. 19 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 6 N., R. 19 E., S. B.	Unsurveyed		640	640
Sec 16, T. 7 N., R. 19 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 7 N., R. 19 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 8 N., R. 19 E., S. B.	Unsurveyed		640	640
Sec 36, T. 8 N., R. 19 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 9 N., R. 19 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 9 N., R. 19 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 10 N., R. 19 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 10 N., R. 19 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 11 N., R. 19 E., S. B.	Surveyed		640	640
Sec. 36, T. 11 N., R. 19 E., S. B.	Surveyed		640	640
Sec. 16, T. 12 N., R. 19 E., S. B.	Surveyed		640	640
Sec 36, T. 12 N., R. 19 E., S. B.	Surveyed		640	640
Sec. 16, T. 1 N., R. 20 E., S. B.	Unsurveyed		640	640
Sec 36, T. 1 N., R. 20 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 2 N., R. 20 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 2 N., R. 20 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 3 N., R. 20 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 3 N., R. 20 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 4 N., R. 20 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 4 N., R. 20 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 5 N., R. 20 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 5 N., R. 20 E., S. B.	Surveyed		640	640
Sec. 16, T. 6 N., R. 20 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 6 N., R. 20 E., S. B.	Surveyed		640	640
Sec. 16, T. 7 N., R. 20 E., S. B.	Surveyed		640	640
Sec. 36, T. 7 N., R. 20 E., S. B.	Surveyed		640	640
Sec. 16, T. 8 N., R. 20 E., S. B.	Surveyed		640	640
Sec. 36, T. 8 N., R. 20 E., S. B.	Surveyed		640	640
Sec. 16, T. 9 N., R. 20 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 9 N., R. 20 E., S. B.	Unsurveyed		640	640

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 16, T. 10 N., R. 20 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 10 N., R. 20 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 11 N., R. 20 E., S. B.	Surveyed		640	640
Sec. 36, T. 11 N., R. 20 E., S. B.	Surveyed		640	640
Sec. 16, T. 1 N., R. 21 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 2 N., R. 21 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 3 N., R. 21 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 3 N., R. 21 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 4 N., R. 21 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 5 N., R. 21 E., S. B.	Surveyed		640	640
Sec. 36, T. 6 N., R. 21 E., S. B.	Surveyed		640	640
Sec. 16, T. 7 N., R. 21 E., S. B.	Surveyed		640	640
Sec 36, T. 7 N, R. 21 E., S. B.	Surveyed		640	640
Sec. 16, T. 8 N., R. 21 E., S. B.	Surveyed		640	640
Sec. 36, T. 8 N., R. 21 E., S. B.	Surveyed		640	640
Sec. 16, T. 9 N., R. 21 E., S. B.	Surveyed		640	640
Sec. 36, T. 9 N., R. 21 E., S. B.	Surveyed		640	640
Sec. 16, T. 10 N., R. 21 E., S. B.	Surveyed		640	640
Sec. 36, T. 10 N., R. 21 E., S. B.	Surveyed		320	320
Sec. 16, T. 5 N., R. 22 E., S. B.	Surveyed		640	640
Sec. 36, T. 6 N., R. 22 E., S. B.	Surveyed		640	640
Sec. 16, T. 7 N., R. 22 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 7 N., R. 22 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 8 N., R. 22 E., S. B.	Surveyed		640	640
Sec. 36, T. 8 N., R. 22 E., S. B.	Surveyed		640	640
Sec 16, T. 9 N., R. 22 E., S. B.	Surveyed		640	640
Sec. 36, T. 9 N., R. 22 E., S. B.	Surveyed		440	440
Sec. 36, T. 10 N., R. 22 E., S. B.	Surveyed		360.07	360.07
Sec. 16, T. 2 N., R. 23 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 3 N., R. 23 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 3 N., R. 23 E., S. B.	Surveyed		640	640
Sec. 16, T. 5 N., R. 23 E., S. B.	Surveyed		640	640
Sec. 36, T. 5 N., R. 23 E., S. B.	Surveyed		640	640
Sec 16, T. 6 N., R. 23 E., S. B.	Surveyed		640	640
Sec 36, T. 6 N., R 23 E., S. B.	Surveyed		640	640
Sec. 16, T. 7 N., R. 23 E., S. B.	Surveyed		320	320
Sec. 36, T. 7 N., R. 23 E., S. B.	Surveyed		640	640
Sec. 16, T. 2 N., R. 24 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 2 N., R. 24 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 3 N., R. 24 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 3 N., R. 24 E., S. B.	Unsurveyed		640	640
Sec 16, T. 4 N., R. 24 E., S. B.	Surveyed		480	480
Sec. 36, T. 4 N., R. 24 E., S. B.	Surveyed		560	560
Sec. 16, T. 5 N., R 24 E., S. B.	Surveyed		640	640
Sec. 16, T. 6 N., R. 24 E., S. B.	Surveyed		160	160
Sec. 16, T. 7 N., R. 24 E., S. B.	Surveyed		370.55	370.55
Sec. 16, T. 2 N., R. 25 E., S. B.	Unsurveyed		441.94	441.94
Sec. 16, T. 3 N., R. 25 E., S. B.	Surveyed		640	640
Sec. 36, T. 3 N., R. 25 E., S. B.	Surveyed		640	640
Sec. 16, T. 4 N., R. 25 E., S. B.	Surveyed		241.80	241.80
Sec. 36, T. 4 N., R. 25 E., S. B.	Surveyed		640	640
Sec. 16, T. 5 N., R. 25 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 5 N., R. 25 E., S. B.	Unsurveyed		160	160
Sec. 16, T. 2 N., R. 27 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 2 N., R. 27 E., S. B.	Unsurveyed		251.60	251.60
Sec. 16, T. 3 N., R. 27 E., S. B.	Surveyed		320	320
Sec. 36, T. 3 N., R. 27 E., S. B.	Surveyed		320	320
Sec. 16, T. 6 N., R. 1 W., S. B.	Surveyed		160	160
Sec. 36, T. 7 N., R. 1 W., S. B.	Surveyed		640	640
Sec. 16, T. 8 N., R. 1 W., S. B.	Surveyed		320	320

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1. 1912.
Sec 36, T. 12 N., R. 1 W., S. B.	Unsurveyed		640	640
Sec. 16, T. 2 N., R. 2 W., S. B.	Surveyed	366.25		366.25
Sec. 36, T. 3 N., R. 2 W., S. B.	Unsurveyed	8.21		8.21
Sec 36, T. 4 N., R. 2 W., S. B.	Surveyed		640	640
Sec. 16, T. 5 N., R. 2 W., S. B.	Surveyed		640	640
Sec. 36, T. 5 N., R. 2 W., S. B.	Surveyed		640	640
Sec 16, T. 6 N., R. 2 W., S. B.	Surveyed		640	640
Sec. 36, T. 6 N., R. 2 W., S. B.	Surveyed		640	640
Sec. 16, T. 7 N., R. 2 W., S. B.	Surveyed		640	640
Sec. 36, T. 7 N., R. 2 W., S. B.	Surveyed		640	640
Sec. 36, T. 12 N., R. 2 W., S. B.	Unsurveyed		640	640
Sec. 16, T. 3 N., R. 3 W., S. B.	Surveyed	7.36		7.36
Sec 36, T. 4 N., R. 3 W., S. B.	Surveyed		640	640
Sec. 36, T. 6 N., R. 3 W., S. B.	Surveyed		640	640
Sec. 36, T. 7 N., R. 3 W., S. B.	Surveyed		640	640
Sec. 36, T. 12 N., R. 3 W., S. B.	Unsurveyed		640	640
Sec. 16, T. 2 N., R. 4 W., S. B.	Surveyed	2.56		2.56
Sec. 16, T. 3 N., R. 4 W., S. B.	Surveyed	9.95		9.95
Sec. 16, T. 4 N., R. 4 W., S. B.	Surveyed		24.68	24.68
Sec. 15, T. 6 N., R. 4 W., S. B.	Surveyed		640	640
Sec. 36, T. 12 N., R. 4 W., S. B.	Unsurveyed		640	640
Sec. 36, T. 4 N., R. 5 W., S. B.	Surveyed	160		160
Sec. 36, T. 8 N., R. 5 W., S. B.	Surveyed		160	160
Sec. 16, T. 12 N., R. 5 W., S. B.	Unsurveyed		640	640
Sec. 36, T. 12 N., R. 5 W., S. B.	Unsurveyed		640	640
Sec 16, T. 3 N., R. 6 W., S. B.	Surveyed	.03		.03
Sec. 36, T. 4 N., R. 6 W., S. B.	Surveyed	160		160
Sec. 36, T. 9 N., R. 6 W., S. B.	Surveyed		80	80
Sec. 16, T. 12 N., R. 6 W., S. B.	Unsurveyed		640	640
Sec 36, T. 12 N., R. 6 W., S. B.	Unsurveyed		640	640
Sec 36, T. 3 N., R. 7 W., S. B.	Surveyed	483.80		483.80
Sec 16, T. 7 N., R. 7 W., S. B.	Surveyed		80	80
Sec 36, T. 7 N., R. 7 W., S. B.	Surveyed		280	280
Sec. 16, T. 4 N., R. 8 W., S. B.	Surveyed		640	640
Sec. 16, T. 8 N., R. 8 W., S. B.	Surveyed		160	160
Sec. 36, T. 2 N., R. 9 W., S. B.	Surveyed	46.30		46.30
Sec. 36, T. 12 N., R. 9 W., S. B.	Surveyed		560.64	560.64
Sec 16, T. 1 N., R. 10 W., S. B.	Surveyed	640		640
Sec. 36, T. 3 N., R. 10 W., S. B.	Surveyed	4.16		4.16
Sec. 16, T. 4 N., R. 10 W., S. B.	Surveyed	14.22		14.22
Sec. 16, T. 4 N., R. 11 W., S. B.	Unsurveyed	.15		.15
Sec. 36, T. 9 N., R. 12 W., S. B.	Surveyed		40	40
Sec. 16, T. 10 N., R. 13 W., S. B.	Surveyed		320	320
Sec. 36, 7. 10 N., R. 13 W., S. B.	Surveyed		480	480
Sec. 36, T. 4 N., R. 15 W., S. B.	Surveyed	246		246
Sec. 16, T. 7 N., R. 15 W., S. B.	Surveyed	21.94		21.94
Sec. 16, T. 9 N., R. 15 W., S. B.	Surveyed		320	320
Sec. 16, T. 6 N., R. 16 W., S. B.	Unsurveyed	301.15		301.15
Sec 16, T. 11 N., R. 16 W., S. B.	Surveyed		520	520
Sec. 36, T. 11 N., R. 16 W., S. B.	Surveyed		200	200
Sec. 36, T. 3 N., R. 17 W., S. B.	Surveyed		160	160
Sec. 16, T. 6 N., R. 17 W., S. B.	Surveyed	140.41		140.41
Sec 36, T 7 N., R. 17 W., S. B.	Surveyed	3.67		3.67
Sec. 36, T. 4 N., R. 19 W., S. B.	Surveyed		80	80
Sec. 16, T. 4 N., R. 20 W., S. B.	Surveyed	19.14		19.14
Sec. 36, T. 6 N., R. 25 W., S. B.	Surveyed	45.20		45.20
Sec. 36, T. 10 N., R. 25 W., S. B.	Surveyed	640		640
Sec. 16, T. 5 N., R. 28 W., S. B.	Surveyed	28.40		28.40
Sec. 36, T. 12 N., R. 28 W., S. B.	Surveyed	11.46		11.46
Sec 16, T. 10 N., R. 31 W., S. B.	Surveyed	4.64		4.64

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 36, T. 12 N., R. 31 W., S. B.	Surveyed		258.76	258.76
Sec. 36, T. 10 N., R. 32 W., S. B.	Surveyed		75.57	75.57
Sec. 16, T. 1 S., R. 1 W., S. B.	Surveyed	5.64		5.64
Sec. 16, T. 2 S., R. 1 W., S. B.	Surveyed	322.06		322.06
Sec. 36, T. 5 S., R. 1 W., S. B.	Surveyed		640	640
Sec. 16, T. 6 S., R. 1 W., S. B.	Surveyed		240	240
Sec. 36, T. 6 S., R. 1 W., S. B.	Surveyed		320	320
Sec. 16, T. 9 S., R. 1 W., S. B.	Surveyed	640		640
Sec. 36, T. 9 S., R. 1 W., S. B.	Surveyed	640		640
Sec. 16, T. 11 S., R. 1 W., S. B.	Surveyed		210.71	210.71
Sec. 16, T. 12 S., R. 1 W., S. B.	Surveyed	40.55		40.55
Sec. 16, T. 13 S., R. 1 W., S. B.	Surveyed	560		560
Sec. 16, T. 14 S., R. 1 W., S. B.	Surveyed		560	560
Sec. 36, T. 14 S., R. 1 W., S. B.	Surveyed		441.95	441.95
Sec. 16, T. 3 S., R. 2 W., S. B.	Surveyed		40	40
Sec. 36, T. 4 S., R. 2 W., S. B.	Surveyed		212.72	212.72
Sec. 16, T. 5 S., R. 2 W., S. B.	Surveyed		320	320
Sec. 36, T. 5 S., R. 2 W., S. B.	Surveyed		372.60	372.60
Sec. 36, T. 8 S., R. 2 W., S. B.	Surveyed		40	40
Sec. 16, T. 9 S., R. 2 W., S. B.	Surveyed		640	640
Sec. 36, T. 9 S., R. 2 W., S. B.	Surveyed		360	360
Sec. 36, T. 10 S., R. 2 W., S. B.	Surveyed		320	320
Sec. 36, T. 4 S., R. 3 W., S. B.	Surveyed		1.30	1.30
Sec. 36, T. 6 S., R. 3 W., S. B.	Surveyed	40		40
Sec. 36, T. 8 S., R. 3 W., S. B.	Surveyed		520	520
Sec. 16, T. 4 S., R. 4 W., S. B.	Surveyed		160	160
Sec. 16, T. 12 S., R. 4 W., S. B.	Surveyed		1.83	1.83
Sec. 16, T. 5 S., R. 5 W., S. B.	Surveyed		160	160
Sec. 16, T. 6 S., R. 5 W., S. B.	Surveyed		640	640
Sec. 36, T. 6 S., R. 5 W., S. B.	Surveyed		160	160
Sec. 36, T. 7 S., R. 8 W., S. B.	Surveyed		115.16	115.16
Sec. 16, T. 1 S., R. 1 E., S. B.	Surveyed	.05		.05
Sec. 16, T. 4 S., R. 1 E., S. B.	Surveyed	.01		.01
Sec. 16, T. 7 S., R. 1 E., S. B.	Surveyed	320		320
Sec. 36, T. 7 S., R. 1 E., S. B.	Surveyed	160		160
Sec. 36, T. 9 S., R. 1 E., S. B.	Surveyed	320		320
Sec. 36, T. 14 S., R. 1 E., S. B.	Surveyed	640		640
Sec. 36, T. 15 S., R. 1 E., S. B.	Surveyed	80		80
Sec. 36, T. 16 S., R. 1 E., S. B.	Surveyed	440		440
Sec. 16, T. 17 S., R. 1 E., S. B.	Surveyed	160		160
Sec. 16, T. 18 S., R. 1 E., S. B.	Surveyed	288.29		288.29
Sec. 36, T. 18 S., R. 1 E., S. B.	Surveyed	241.91		241.91
Sec. 36, T. 19 S., R. 1 E., S. B.	Surveyed	47.74		47.74
Sec. 16, T. 7 S., R. 2 E., S. B.	Surveyed	1.03		1.03
Sec. 16, T. 13 S., R. 2 E., S. B.	Surveyed	280		280
Sec. 16, T. 15 S., R. 2 E., S. B.	Surveyed	320		320
Sec. 36, T. 15 S., R. 2 E., S. B.	Surveyed		40	40
Sec. 16, T. 2 S., R. 3 E., S. B.	Surveyed	5.17		5.17
Sec. 16, T. 5 S., R. 3 E., S. B.	Surveyed	.06		.06
Sec. 16, T. 7 S., R. 3 E., S. B.	Surveyed	120		120
Sec. 36, T. 15 S., R. 3 E., S. B.	Surveyed	40		40
Sec. 16, T. 16 S., R. 3 E., S. B.	Surveyed	320		320
Sec. 16, T. 17 S., R. 3 E., S. B.	Surveyed	480		480
Sec. 36, T. 4 S., R. 4 E., S. B.	Surveyed	108.63		108.63
Sec. 36, T. 6 S., R. 4 E., S. B.	Unsurveyed	40		40
Sec. 16, T. 8 S., R. 4 E., S. B.	Unsurveyed	2.48		2.48
Sec. 16, T. 12 S., R. 4 E., S. B.	Surveyed	40		40
Sec. 16, T. 13 S., R. 4 E., S. B.	Surveyed	80		80
Sec. 36, T. 16 S., R. 4 E., S. B.	Surveyed	640		640
Sec. 16, T. 1 S., R. 5 E., S. B.	Surveyed		640	640

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 36, T. 1 S., R. 5 E., S. B.	Surveyed		.18	.18
Sec. 16, T. 2 S., R. 5 E., S. B.	Surveyed		320	320
Sec. 36, T. 2 S., R. 5 E., S. B.	Surveyed		600	600
Sec. 36, T. 3 S., R. 5 E., S. B.	Surveyed		640	640
Sec. 16, T. 6 S., R. 5 E., S. B.	Surveyed	39.08		39.08
Sec. 36, T. 7 S., R. 5 E., S. B.	Unsurveyed	.98		.98
Sec. 16, T. 9 S., R. 5 E., S. B.	Surveyed	40		40
Sec. 16, T. 11 S., R. 5 E., S. B.	Surveyed	640		640
Sec. 36, T. 11 S., R. 5 E., S. B.	Surveyed	640		640
Sec. 16, T. 12 S., R. 5 E., S. B.	Surveyed	600		600
Sec. 36, T. 12 S., R. 5 E., S. B.	Surveyed	640		640
Sec. 16, T. 13 S., R. 5 E., S. B.	Surveyed	640		640
Sec. 36, T. 13 S., R. 5 E., S. B.	Surveyed	640		640
Sec. 16, T. 14 S., R. 5 E., S. B.	Surveyed	640		640
Sec. 36, T. 14 S., R. 5 E., S. B.	Surveyed	640		640
Sec. 16, T. 15 S., R. 5 E., S. B.	Surveyed	360		360
Sec. 36, T. 15 S., R. 5 E., S. B.	Surveyed	320		320
Sec. 16, T. 16 S., R. 5 E., S. B.	Surveyed	640		640
Sec. 36, T. 16 S., R. 5 E., S. B.	Surveyed	640		640
Sec. 36, T. 17 S., R. 5 E., S. B.	Surveyed	640		640
Sec. 16, T. 18 S., R. 5 E., S. B.	Surveyed	240		240
Sec. 16, T. 1 S., R. 6 E., S. B.	Surveyed	320.14		320.14
Sec. 36, T. 1 S., R. 6 E., S. B.	Surveyed		640	640
Sec. 16, T. 2 S., R. 6 E., S. B.	Surveyed		640	640
Sec. 36, T. 2 S., R. 6 E., S. B.	Surveyed		640	640
Sec. 16, T. 3 S., R. 6 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 3 S., R. 6 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 5 S., R. 6 E., S. B.	Surveyed		640	640
Sec. 36, T. 6 S., R. 6 E., S. B.	Surveyed	15.68		15.68
Sec. 36, T. 7 S., R. 6 E., S. B.	Surveyed	.54		.54
Sec. 36, T. 9 S., R. 6 E., S. B.	Surveyed		480	480
Sec. 16, T. 12 S., R. 6 E., S. B.	Surveyed		640	640
Sec. 36, T. 12 S., R. 6 E., S. B.	Surveyed		640	640
Sec. 16, T. 13 S., R. 6 E., S. B.	Surveyed		640	640
Sec. 36, T. 13 S., R. 6 E., S. B.	Surveyed		640	640
Sec. 36, T. 14 S., R. 6 E., S. B.	Surveyed		640	640
Sec. 16, T. 15 S., R. 6 E., S. B.	Surveyed	640		640
Sec. 36, T. 15 S., R. 6 E., S. B.	Surveyed	640		640
Sec. 16, T. 16 S., R. 6 E., S. B.	Surveyed	640		640
Sec. 36, T. 16 S., R. 6 E., S. B.	Surveyed	600		600
Sec. 36, T. 17 S., R. 6 E., S. B.	Surveyed	640		640
Sec. 16, T. 18 S., R. 6 E., S. B.	Surveyed	606.07		606.07
Sec. 16, T. 1 S., R. 7 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 1 S., R. 7 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 2 S., R. 7 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 2 S., R. 7 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 3 S., R. 7 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 3 S., R. 7 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 4 S., R. 7 E., S. B.	Surveyed		640	640
Sec. 36, T. 7 S., R. 7 E., S. B.	Surveyed	62.95		62.95
Sec. 16, T. 8 S., R. 7 E., S. B.	Surveyed	1.09		1.09
Sec. 36, T. 8 S., R. 7 E., S. B.	Surveyed	2.64		2.64
Sec. 36, T. 9 S., R. 7 E., S. B.	Surveyed		640	640
Sec. 36, T. 10 S., R. 7 E., S. B.	Surveyed		640	640
Sec. 36, T. 12 S., R. 7 E., S. B.	Surveyed		640	640
Sec. 16, T. 13 S., R. 7 E., S. B.	Surveyed		640	640
Sec. 36, T. 13 S., R. 7 E., S. B.	Surveyed		640	640
Sec. 16, T. 14 S., R. 7 E., S. B.	Surveyed		640	640
Sec. 36, T. 14 S., R. 7 E., S. B.	Surveyed		640	640
Sec. 16, T. 15 S., R. 7 E., S. B.	Surveyed		640	640

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1. 1912.
Sec. 16, T. 17 S., R. 7 E., S. B.	Surveyed		240	240
Sec. 36, T. 17 S., R. 7 E., S. B.	Surveyed		640	640
Sec. 16, T. 1 S., R. 8 E., S. B.	Surveyed		640	640
Sec. 36, T. 1 S., R. 8 E., S. B.	Surveyed		320	320
Sec. 16, T. 2 S., R. 8 E., S. B.	Surveyed		640	640
Sec. 36, T. 2 S., R. 8 E., S. B.	Surveyed		640	640
Sec. 16, T. 3 S., R. 8 E., S. B.	Surveyed		640	640
Sec. 36, T. 3 S., R. 8 E., S. B.	Surveyed		640	640
Sec. 16, T. 4 S., R. 8 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 4 S., R. 8 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 5 S., R. 8 E., S. B.	Surveyed		640	640
Sec. 36, T. 5 S., R. 8 E., S. B.	Surveyed		640	640
Sec. 36, T. 12 S., R. 8 E., S. B.	Surveyed		200.38	200.3
Sec. 16, T. 13 S., R. 8 E., S. B.	Surveyed		640	640
Sec. 36, T. 13 S., R. 8 E., S. B.	Surveyed		495.86	495.8
Sec. 16, T. 14 S., R. 8 E., S. B.	Surveyed		640	640
Sec. 36, T. 14 S., R. 8 E., S. B.	Surveyed		640	640
Sec. 16, T. 15 S., R. 8 E., S. B.	Surveyed		640	640
Sec. 36, T. 15 S., R. 8 E., S. B.	Surveyed		640	640
Sec. 36, T. 16 S., R. 8 E., S. B.	Surveyed		640	640
Sec. 16, T. 17 S., R. 8 E., S. B.	Surveyed		640	640
Sec. 16, T. 1 S., R. 9 E., S. B.	Surveyed		640	640
Sec. 36, T. 1 S., R. 9 E., S. B.	Surveyed		640	640
Sec. 16, T. 2 S., R. 9 E., S. B.	Surveyed		640	640
Sec. 36, T. 2 S., R. 9 E., S. B.	Surveyed		640	640
Sec. 16, T. 3 S., R. 9 E., S. B.	Surveyed		640	640
Sec. 36, T. 3 S., R. 9 E., S. B.	Surveyed		640	640
Sec 16, T. 4 S., R. 9 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 5 S., R. 9 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 5 S., R. 9 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 5 S., R. 9 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 6 S., R. 9 E., S. B.	Surveyed		640	640
Sec. 36, T. 6 S., R. 9 E., S. B.	Surveyed		640	640
Sec. 36, T. 8 S., R. 9 E., S. B.	Surveyed		1.42	1.4
Sec. 16, T. 11 S., R. 9 E., S. B.	Surveyed		320	320
Sec. 36, T. 13 S., R. 9 E., S. B.	Surveyed		640	640
Sec. 36, T. 14 S., R. 9 E., S. B.	Surveyed		321.06	321.0
Sec. 36, T. 15 S., R. 9 E., S. B.	Surveyed		640	640
Sec. 16, T. 17 S., R. 9 E., S. B.	Surveyed		640	640
Sec. 16, T. 1 S., R. 10 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 1 S., R. 10 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 2 S., R. 10 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 2 S., R. 10 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 3 S., R. 10 E., S. B.	Surveyed		640	640
Sec. 36, T. 3 S., R. 10 E., S. B.	Surveyed		640	640
Sec. 16, T. 4 S., R. 10 E., S. B.	Unsurveyed		640	640
Sec 36, T. 4 S., R. 10 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 5 S., R. 10 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 5 S., R. 10 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 6 S., R. 10 E., S. B.	Unsurveyed		640	640
Sec. 36. T. 6 S., R. 10 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 15 S., R. 10 E., S. B.	Surveyed		80	80
Sec 16, T. 16 S., R. 10 E., S. B.	Surveyed		.65	.6
Sec 16, T. 17 S., R. 10 E., S. B.	Surveyed		640	640
Sec. 16, T. 1 S., R. 11 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 1 S., R. 11 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 2 S., R. 11 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 2 S., R. 11 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 3 S., R. 11 E., S. B.	Surveyed		640	640
Sec. 36, T. 3 S., R. 11 E., S. B.	Surveyed		640	640

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec 16, T. 4 S., R. 11 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 4 S., R. 11 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 5 S., R. 11 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 5 S., R. 11 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 6 S., R. 11 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 6 S., R. 11 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 7 S., R. 11 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 7 S., R. 11 E., S. B.	Surveyed		320	320
Sec. 16, T. 9 S., R. 11 E., S. B.	Surveyed		80	80
Sec. 16, T. 10 S., R. 11 E., S. B.	Surveyed		480	480
Sec. 16, T. 11 S., R. 11 E., S. B.	Surveyed		292.86	292.86
Sec. 16, T. 17 S., R. 11 E., S. B.	Surveyed		640	640
Sec. 36, T. 17 S., R. 11 E., S. B.	Surveyed		.99	.99
Sec. 16, T. 1 S., R. 12 E., S. B.	Surveyed		640	640
Sec. 36, T. 1 S., R. 12 E., S. B.	Surveyed		640	640
Sec. 16, T. 2 S., R. 12 E., S. B.	Surveyed		619.34	619.34
Sec 16, T. 3 S., R. 12 E., S. B.	Surveyed		640	640
Sec. 36, T. 3 S., R. 12 E., S B.	Surveyed		640	640
Sec. 16, T. 4 S., R. 12 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 4 S., R. 12 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 5 S., R. 12 E., S. B.	Surveyed		640	640
Sec. 36, T. 5 S., R. 12 E., S. B.	Surveyed		640	640
Sec. 16, T. 6 S., R. 12 E., S. B.	Surveyed		640	640
Sec. 36, T. 6 S., R. 12 E., S. B.	Surveyed		640	640
Sec. 16, T. 7 S., R. 12 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 7 S., R. 12 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 8 S., R. 12 E., S. B.	Surveyed		640	640
Sec. 16, T. 10 S., R. 12 E., S. B.	Surveyed		640	640
Sec. 16, T. 1 S., R. 13 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 1 S., R. 13 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 2 S., R. 13 E., S. B.	Surveyed		640	640
Sec. 16, T. 3 S., R. 13 E., S. B.	Surveyed		640	640
Sec 36, T. 3 S., R. 13 E., S. B.	Surveyed		640	640
Sec. 16, T. 4 S., R. 13 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 4 S., R. 13 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 5 S., R. 13 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 5 S., R. 13 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 6 S., R. 13 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 6 S., R. 13 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 7 S., R. 13 E., S. B.	Surveyed		640	640
Sec. 36, T. 7 S., R. 13 E., S. B.	Surveyed		640	640
Sec. 16, T. 8 S., R. 13 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 8 S., R. 13 E., S. B.	Unsurveyed		600	600
Sec. 16, T. 11 S., R. 13 E., S. B.	Surveyed		281.13	281.13
Sec 16, T. 1 S., R. 14 E., S. B.	Surveyed		160	160
Sec. 36, T. 1 S., R. 14 E., S. B.	Surveyed		160	160
Sec. 36, T. 2 S., R. 14 E., S. B.	Surveyed		640	640
Sec. 16, T. 3 S., R. 14 E., S. B.	Surveyed		640	640
Sec. 36, T. 3 S., R. 14 E., S. B.	Surveyed		640	640
Sec. 16, T. 4 S., R. 14 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 4 S., R. 14 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 5 S., R. 14 E., S. B.	Surveyed		640	640
Sec. 36, T. 6 S., R. 14 E., S. B.	Surveyed		640	640
Sec 16, T. 7 S., R. 14 E., S. B.	Surveyed		640	640
Sec. 16, T. 8 S., R. 14 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 8 S., R. 14 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 9 S., R. 14 E., S. B.	Surveyed		640	640
Sec. 36, T. 9 S., R. 14 E., S. B.	Surveyed		640	640
Sec 16, T. 1 S., R. 15 E., S. B.	Surveyed		640	640
Sec. 36, T. 1 S., R. 15 E., S. B.	Surveyed		640	640

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 16, T. 2 S., R. 15 E., S. B.	Surveyed		640	640
Sec. 36, T. 2 S., R. 15 E., S. B.	Surveyed		640	640
Sec. 16, T. 3 S., R. 15 E., S. B.	Surveyed		320	320
Sec. 16, T. 4 S., R. 15 E., S. B.	Surveyed		320	320
Sec. 36, T. 5 S., R. 15 E., S. B.	Surveyed		480	480
Sec. 16, T. 6 S., R. 15 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 6 S., R. 15 E, S. B.	Unsurveyed		640	640
Sec. 16, T. 7 S., R. 15 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 7 S., R. 15 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 8 S., R. 15 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 8 S., R. 15 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 9 S., R. 15 E., S. B.	Surveyed		640	640
Sec. 36, T. 9 S., R. 15 E., S. B.	Surveyed		640	640
Sec 36, T. 10 S., R. 15 E., S. B.	Surveyed		640	640
Sec. 36, T. 11 S., R. 15 E., S. B.	Surveyed		320	320
Sec. 16, T. 2 S., R. 16 E., S. B.	Surveyed		480	480
Sec. 16, T. 3 S., R. 16 E., S. B.	Surveyed		320	320
Sec. 36, T. 3 S., R. 16 E., S. B.	Surveyed		640	640
Sec. 16, T. 4 S., R. 16 E., S. B.	Surveyed		480	480
Sec. 36, T. 4 S., R. 16 E., S. B.	Surveyed		289.64	289.64
Sec 16, T. 6 S., R. 16 E., S. B.	Surveyed		640	640
Sec. 36, T. 6 S., R. 16 E., S. B.	Surveyed		640	640
Sec. 16, T. 7 S., R. 16 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 7 S., R 16 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 8 S., R. 16 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 8 S., R. 16 E, S. B.	Unsurveyed		640	640
Sec. 16, T. 9 S., R. 16 E., S. B.	Unsurveyed		640	640
Sec 36, T. 9 S., R. 16 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 10 S., R. 16 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 10 S., R. 16 E., S. B	Unsurveyed		640	640
Sec. 16, T. 13 S., R. 16 E., S. B.	Surveyed		320	320
Sec. 16, T. 1 S., R. 17 E., S. B.	Surveyed		640	640
Sec. 36, T. 1 S., R. 17 E., S. B.	Surveyed		320	320
Sec. 16, T. 2 S., R. 17 E., S. B.	Surveyed		160	160
Sec. 36, T. 4 S., R. 17 E., S. B.	Surveyed		480	480
Sec. 16, T. 7 S., R. 17 E., S. B.	Unsurveyed		640	640
Sec 36, T. 7 S., R. 17 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 8 S., R. 17 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 8 S., R. 17 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 9 S., R. 17 E., S. B.	Surveyed		640	640
Sec. 36, T. 9 S., R. 17 E., S. B.	Surveyed		640	640
Sec. 16, T. 10 S., R. 17 E., S. B.	Surveyed		640	640
Sec. 36, T. 10 S., R. 17 E., S. B.	Surveyed		640	640
Sec. 16, T. 11 S., R. 17 E., S. B.	Surveyed		640	640
Sec. 36, T. 11 S., R. 17 E., S. B.	Surveyed		640	640
Sec. 16, T. 17 S., R. 17 E., S. B.	Surveyed		8.17	8.17
Sec. 16, T. 2 S., R. 18 E., S. B.	Surveyed		640	640
Sec 36, T. 2 S., R. 18 E., S. B.	Surveyed		320	320
Sec. 36, T. 3 S., R. 18 E., S. B.	Surveyed		640	640
Sec. 16, T. 4 S., R. 18 E., S. B.	Surveyed		640	640
Sec. 36, T. 4 S., R. 18 E., S. B.	Surveyed		640	640
Sec 16, T. 5 S., R. 18 E., S. B.	Surveyed		640	640
Sec. 16, T. 8 S., R. 18 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 8 S., R. 18 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 9 S., R. 18 E., S. B.	Surveyed		640	640
Sec. 16. T. 10 S., R. 18 E., S. B.	Surveyed		480	480
Sec. 36, T. 10 S., R. 18 E., S. B.	Surveyed		640	640
Sec 16, T. 11 S., R. 18 E., S. B.	Surveyed		640	640
Sec 36. T. 11 S., R. 18 E., S. B.	Surveyed		640	640
Sec 16, T. 12 S., R. 18 E., S. B.	Surveyed		320	320

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 16, T. 14 S., R. 18 E., S. B.	Surveyed		640	640
Sec. 36, T. 14 S., R. 18 E., S. B.	Surveyed		320	320
Sec. 36, T. 15 S., R. 18 E., S. B.	Surveyed		640	640
Sec. 16, T. 3 S., R. 19 E., S. B.	Surveyed		320	320
Sec. 36, T. 4 S., R. 19 E., S. B.	Surveyed		160	160
Sec. 16, T. 5 S., R. 19 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 5 S., R. 19 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 7 S., R. 19 E., S. B.	Surveyed		320	320
Sec. 16, T. 8 S., R. 19 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 8 S., R. 19 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 11 S., R. 19 E., S. B.	Surveyed		640	640
Sec. 36, T. 12 S., R. 19 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 13 S., R. 19 E., S. B.	Surveyed		640	640
Sec. 36, T. 15 S., R. 19 E., S. B.	Surveyed		640	640
Sec. 16, T. 17 S., R. 19 E., S. B.	Unsurveyed		320	320
Sec. 16, T. 3 S., R. 20 E., S. B.	Surveyed		640	640
Sec. 36, T. 3 S., R. 20 E., S. B.	Surveyed		640	640
Sec. 16, T. 5 S., R. 20 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 5 S., R. 20 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 8 S., R. 20 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 8 S., R. 20 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 9 S., R. 20 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 9 S., R. 20 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 10 S., R. 20 E., S. B.	Surveyed		640	640
Sec. 16, T. 11 S., R. 20 E., S. B.	Surveyed		640	640
Sec. 36, T. 11 S., R. 20 E., S. B.	Surveyed		640	640
Sec. 16, T. 12 S., R. 20 E., S. B.	Surveyed		640	640
Sec. 36, T. 12 S., R. 20 E., S. B.	Surveyed		640	640
Sec. 16, T. 13 S., R. 20 E., S. B.	Surveyed		640	640
Sec. 36, T. 13 S., R. 20 E., S. B.	Surveyed		640	640
Sec. 36, T. 14 S., R. 20 E., S. B.	Surveyed		640	640
Sec. 16, T. 15 S., R. 20 E., S. B.	Surveyed		640	640
Sec. 36, T. 15 S., R. 20 E., S. B.	Surveyed		320	320
Sec. 16, T. 16 S., R. 20 E., S. B.	Surveyed		560	560
Sec. 36, T. 16 S., R. 20 E., S. B.	Surveyed		640	640
Sec. 36, T. 3 S., R. 21 E., S. B.	Surveyed		640	640
Sec. 36, T. 4 S., R. 21 E., S. B.	Surveyed		320	320
Sec. 16, T. 6 S., R. 21 E., S. B.	Surveyed		640	640
Sec. 16, T. 7 S., R. 21 E., S. B.	Surveyed		640	640
Sec. 16, T. 12 S., R. 21 E., S. B.	Surveyed		640	640
Sec. 16, T. 13 S., R. 21 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 13 S., R. 21 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 14 S., R. 21 E., S. B.	Surveyed		640	640
Sec. 36, T. 14 S., R. 21 E., S. B.	Surveyed		640	640
Sec. 16, T. 15 S., R. 21 E., S. B.	Surveyed		520	520
Sec. 36, T. 15 S., R. 21 E., S. B.	Surveyed		160	160
Sec. 16, T. 1 S., R. 22 E., S. B.	Surveyed		480	480
Sec. 36, T. 1 S., R. 22 E., S. B.	Surveyed		160	160
Sec. 16, T. 3 S., R. 22 E., S. B.	Surveyed		640	640
Sec. 36, T. 3 S., R. 22 E., S. B.	Surveyed		640	640
Sec. 16, T. 4 S., R. 22 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 4 S., R. 22 E., S. B.	Unsurveyed		640	640
Sec. 36, T. 13 S., R. 22 E., S. B.	Surveyed		483.42	483.42
Sec. 16, T. 14 S., R. 22 E., S. B.	Surveyed		640	640
Sec. 36, T. 14 S., R. 22 E., S. B.	Surveyed		360	360
Sec. 16, T. 15 S., R. 22 E., S. B.	Surveyed		640	640
Sec. 16, T. 16 S., R. 22 E., S. B.	Surveyed		80	80
Sec. 36, T. 1 S., R. 23 E., S. B.	Surveyed		640	640
Sec. 16, T. 2 S., R. 23 E., S. B.	Surveyed		279.90	279.90
Sec. 16, T. 3 S., R. 23 E., S. B.	Surveyed		480	480

EXHIBIT D—*Continued.*

	Surveyed or unsurveyed.	Area within National Forest Reserve.	Area outside National Forest Reserve.	Total area belonging to the State April 1, 1912.
Sec. 16, T. 4 S., R. 23 E., S. B.	Surveyed		320	320
Sec. 16, T. 5 S., R. 25 E., S. B.	Surveyed		640	640
Sec. 16, T. 6 S., R. 23 E., S. B.	Surveyed		560	560
Sec. 36, T. 13 S., R. 23 E., S. B.	Surveyed		160	160
Sec. 16, T. 14 S., R. 23 E., S. B.	Surveyed		640	640
Sec. 16, T. 15 S., R. 23 E., S. B.	Surveyed		640	640
Sec. 16, T. 16 S., R. 23 E., S. B.	Surveyed		230.28	230.28
Sec. 16, T. 1 S., R. 24 E., S. B.	Unsurveyed		640	640
Sec. 16, T. 2 S., R. 24 E., S. B.	Unsurveyed		13.64	13.64
Sec. 16, T. 14 S., R. 24 E., S. B.	Surveyed		9.90	9.90

EXHIBIT E.

California State Conservation Commission,
Mills Building, San Francisco, Cal.

BERKELEY, CAL., March 7, 1912.

GENTLEMEN:

I beg to submit herewith, in accordance with your request, a brief statement with reference to the dredged land situation in this State and its effect on the amount and value of agricultural lands of California. Before making such statements as may seem pertinent on the basis of my visit to the dredged districts of Oroville and Folsom, I wish to submit some statistical information which may tend to make my remarks of more definite significance. I am indebted for these statistics to Mr. H. F. Bain, who included them in his report to the Section on Conservation of the Commonwealth Club on the subject of minerals in California.

From 1900 to 1911 the amount of gold produced by the world through dredging shows an increase from 1 per cent to 1.65 per cent, taking 100 per cent as the total product of the world. The following table further gives an idea of the dredging ground in the various counties of California available for such purposes:

Counties.	Total proven dredging ground.	Total acreage owned by dredging companies.
Butte	6,600	8,900
Yuba	3,600	5,500
Placer	430	990
Sacramento	6,050	12,500
Calaveras	850	850
Stanislaus	200	1,000
Merced	400	500
Shasta	700	2,000
Siskiyou	370	450
Totals	19,200	32,690

The statement appended to these figures shows that probably less than 5.000 acres have already been dredged. I shall refer to this matter later. Then as to the amount of gold produced through dredging as compared with that produced from other sources in California, we find the following statistics:

Source.	1898.	1909.
Deep mines	$12,488,321	$11,133,437
Placers—		
Drift mines	1,028,547	739,797
Surface placers	1,841,473	376,078
Dredging	19,000	7,382,950
Hydraulic	962,192	605,608

It is also well to add to these figures a table showing the rapid increase in dredging every year since 1898.

1898	$18,847
1899	133,812
1900	200,369
1901	471,934
1902	801,295
1903	1,488,556
1904	2,187,038
1905	3,276,141
1906	5,098,359
1907	5,065,437
1908	6,536,089
1909	7,382,950

LOCALITIES AND AREAS OF PRESENT DREDGING OPERATIONS.

The largest dredging areas in California to-day are undoubtedly in the Oroville and Folsom districts and along the Yuba River. The acreage dredged, in accordance with statements of people on the spot, who should have authoritative information, would seem to be much larger than that reported in the figures above noted. That is to say, Mr. Leggett, at Oroville, told the writer that in his opinion, more than 5,000 acres had already been dredged at Oroville alone and that 2,000 acres more would probably be dredged in that district. That does not take into consideration a very considerable area at Folsom and on the Yuba River. It suffices for our purposes here to know that, while 7,000 acres may be the total for the Oroville district, the lands now being dredged by the Natomas Consolidated, at Folsom and vicinity, will no doubt show an increase in acreage year by year. Mr. Leggett is also authority for the statement that the largest amount of dredging will be done along the Yuba River. In other words, we are facing a condition where dredging is to be carried out, not merely on a limited area, but in several different parts of the State, and will undoubtedly increase, as gravelly lands, by assay, have shown them worthy of being dredged for gold.

THE KIND OF LAND BEING DREDGED.

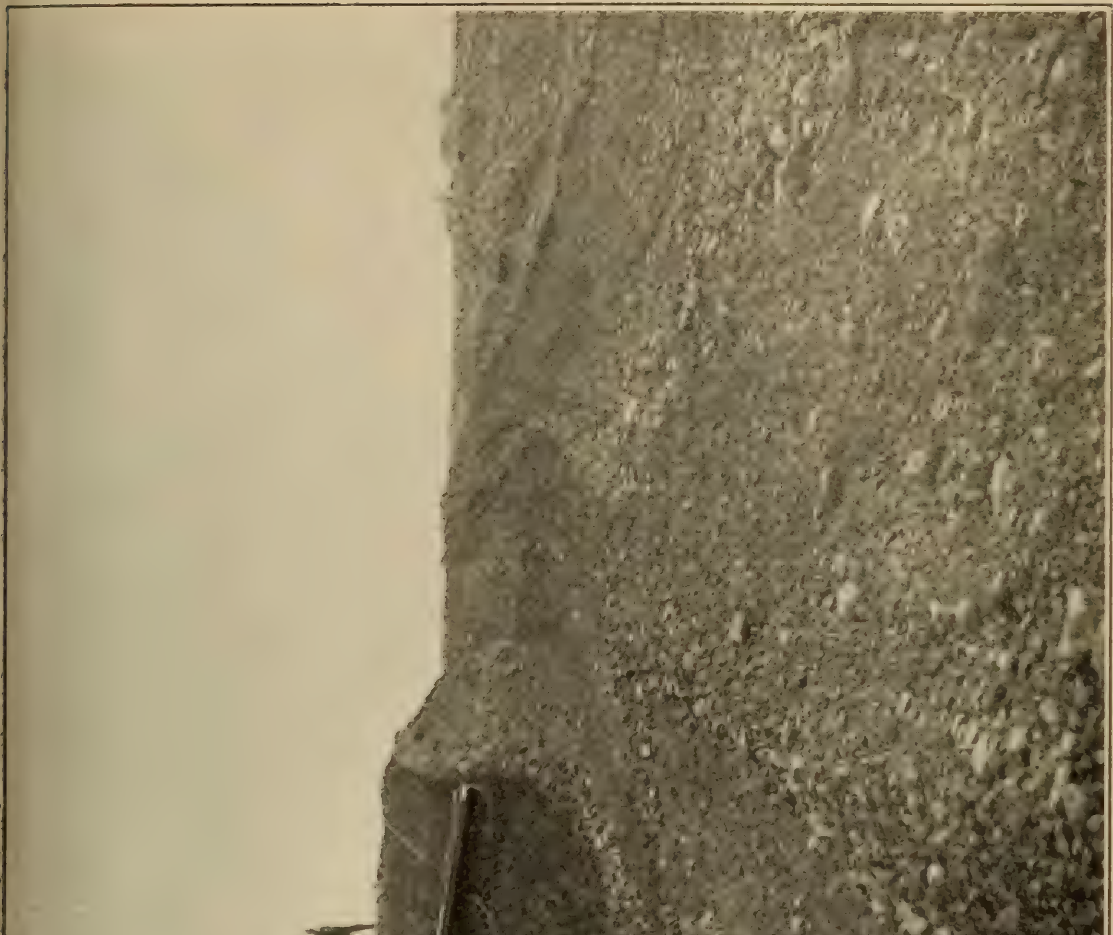
I think it is safe to say that the largest part of the land dredged at Oroville was, from the agricultural standpoint, of little value. It is Mr. Leggett's opinion that only 10 per cent of the land that has been thus far dredged in the Oroville district was at all fit for agricultural purposes. In the Folsom district it is estimated that approximately 20 per cent of the land thus far dredged was fit for agricultural purposes, while, as regards the Yuba River district, it is hard to give an estimate of the amount of land actually fit for agriculture, which is now being dredged or is to be dredged in the future. In this connection it should be remembered that considerable areas of land are being purchased by the various dredging companies in the Folsom district and along the Yuba River which are producing good crops and which are being made unfit to a greater or less degree, as will be later discussed, by dredging.

THE RECLAMATION OF DREDGED LAND.

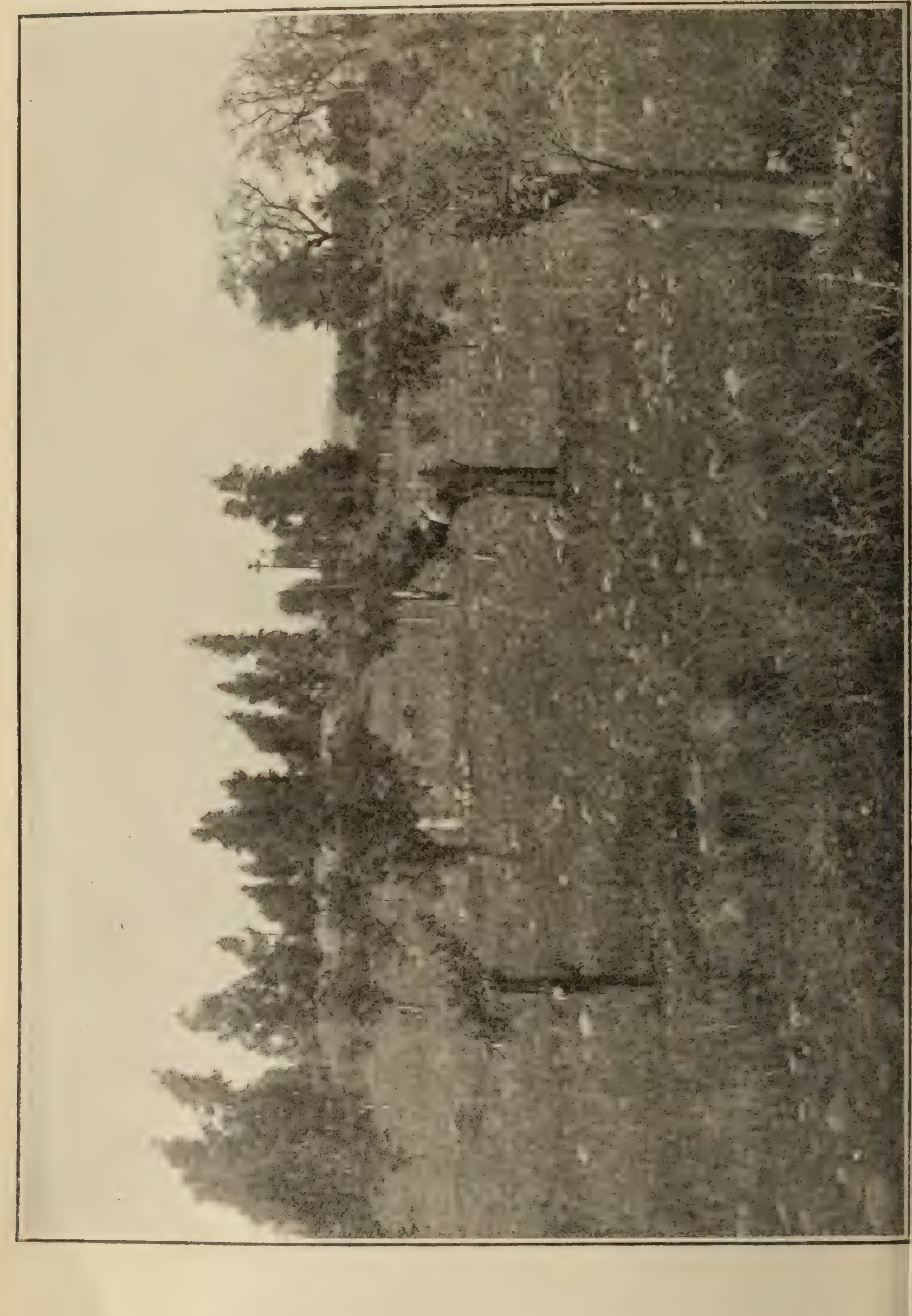
In connection with the subject of whether or not dredging of land should be allowed, an eminently pertinent question arising is "Can dredged land be reclaimed for agricultural purposes?" Before giving my own opinion in the matter, I may give an account of the observations I have made of the two attempts at the reclamation of dredged land; one at Oroville by Mr. Leggett, and the other at Natoma, near Folsom, by the Natomas Consolidated.

On a ten-acre lot, which has been leveled after dredging, Mr. Leggett planted a large variety of fruits, among them vines, figs, apricots, peaches, oranges, olives and walnuts. The oranges and olives were old trees which had been cut back and moved to the new land from old orchards. The other fruits were planted from young stock. For all plantings, top soil was put into every hole to start the plant on. The oranges and figs are, to judge from Mr. Leggett's experiment, a failure without doubt, while the others seemingly do fairly well, but, with the exception of the vines, have attained only a small growth, though showing good blossoming and fairly good fruit production. It is hard to say now, since the walnuts and olives are both too recently planted to produce, whether or not they will produce sufficiently to make them profitable. Mr. Leggett has also planted, on adjacent land to the oranges, eucalyptus trees now nearly seven years old without any leveling of the débris. It must be stated here that these eucalyptus trees are all looking fine and apparently vigorously and rapidly growing.

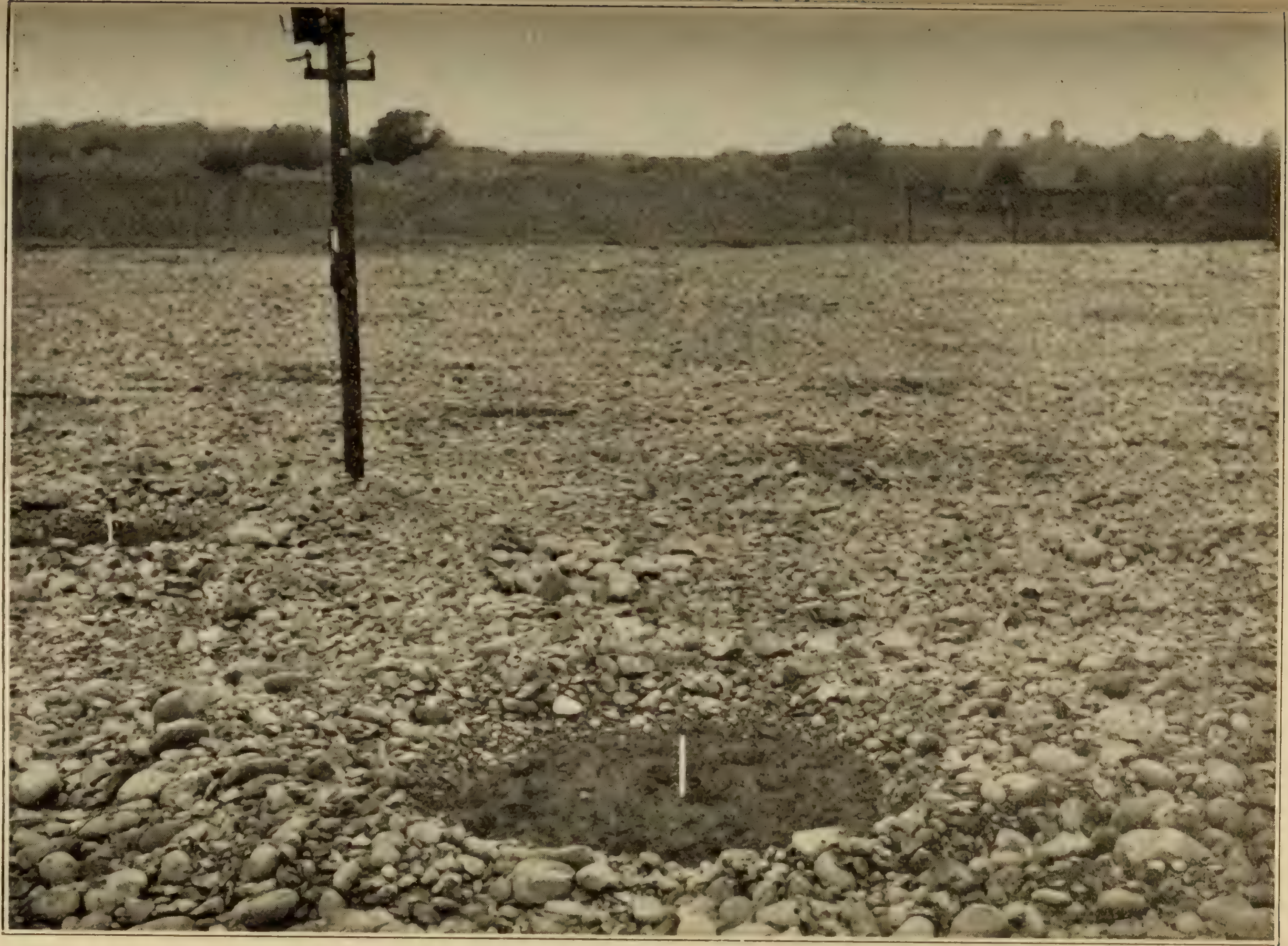
The attempt at reclaiming the dredged land near Natoma by the Natomas Consolidated has been more systematically and carefully carried out than Mr. Leggett's work. They have very carefully leveled the land in terraces and have thus far planted 15 acres in eucalyptus trees about one third each of 1-year, 2-year, and 3-year old trees. There are, at the present time, being prepared 15 acres more for olives,



Reclaiming Dredged Lands.



Old trees planted on the dredged land near Oroville.



The young tree is started by good soil being placed in the hole excavated for it.

which will be planted shortly. In each hole in which the tree was planted a wagon load of good top soil was placed to start the tree and it is reported (whether authentically or not, I cannot say) that the preparation of the land thus planted by the Natomas Consolidated involved an expenditure of $250 per acre. As regards the condition of the eucalyptus trees described above, it must be stated that they are all doing well and evidently making a vigorous growth, not any, in any way so far as I can see by an examination of them, showing any effects from lack of plant food or water. It should be noted, however, that in both cases in which planting was done on dredged land, top soil was placed into the holes for planting the new trees. Regardless of whether or not the figures above given for the reclamation per acre are authentic, the expenditure certainly must be large. In other words, what I mean to bring out by this statement is that it is doubted if, in a small way by private individuals, such dredged lands can be reclaimed and made to pay a profit on the investment. I am inclined to the belief that that is impossible, unless future experiments with fruit trees should yield larger profits per acre than can be obtained from eucalyptus.

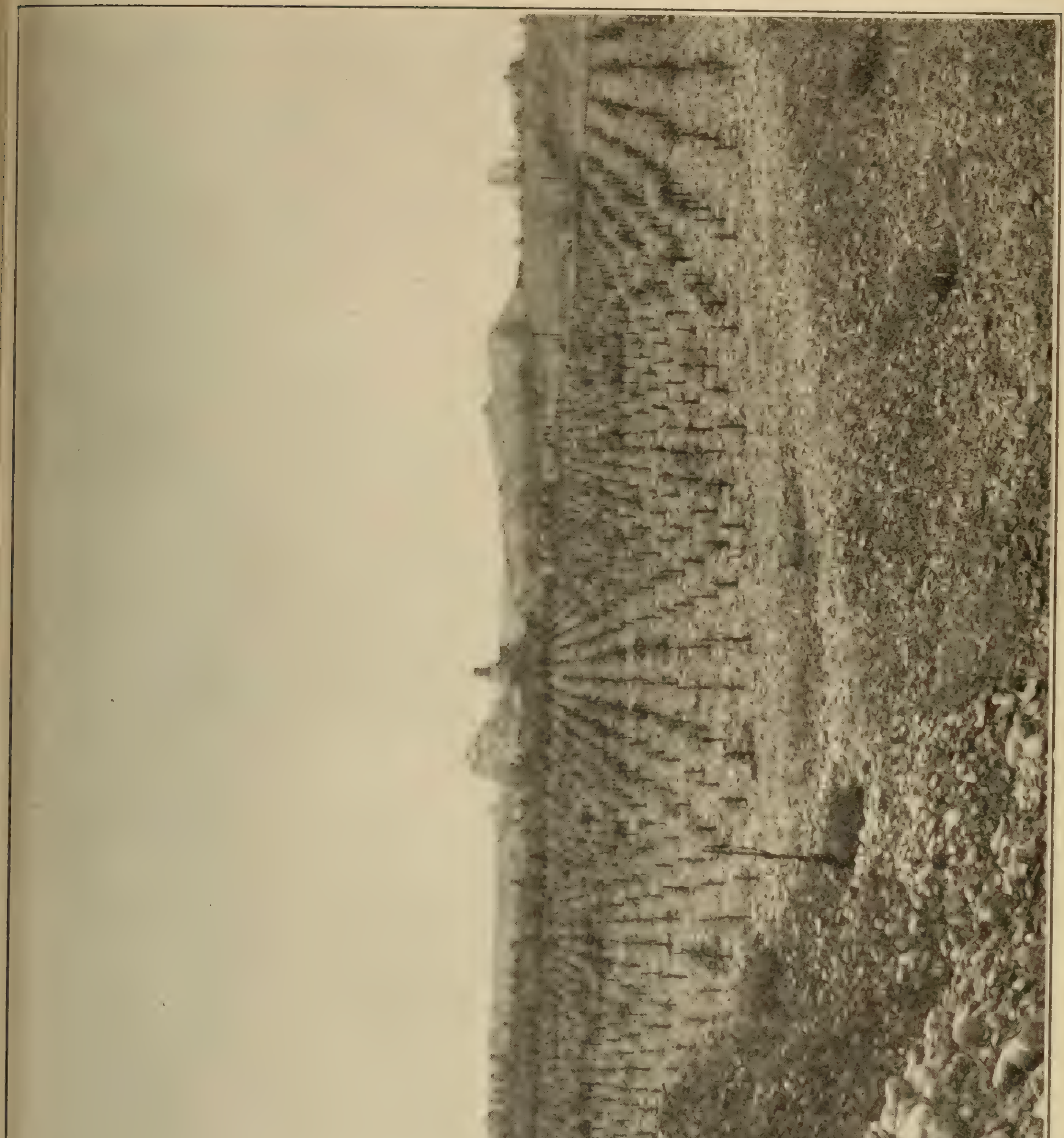
Another point which must be brought out in this connection is that the nature of all the dredged land is not the same, viz., there are portions of the dredged material which contain only small quantities of soil, whereas others contain large quantities of good soil. Hence, it is only reasonable to suppose that the latter might, with a fair start, be a good medium for root development and hence for plant growth, whereas the former might be useless. This is a distinction between the different kinds of dredged soil which, in my opinion, cannot be overlooked in considering the value of dredged lands for agricultural purposes.

THE ESTHETIC POINT OF VIEW.

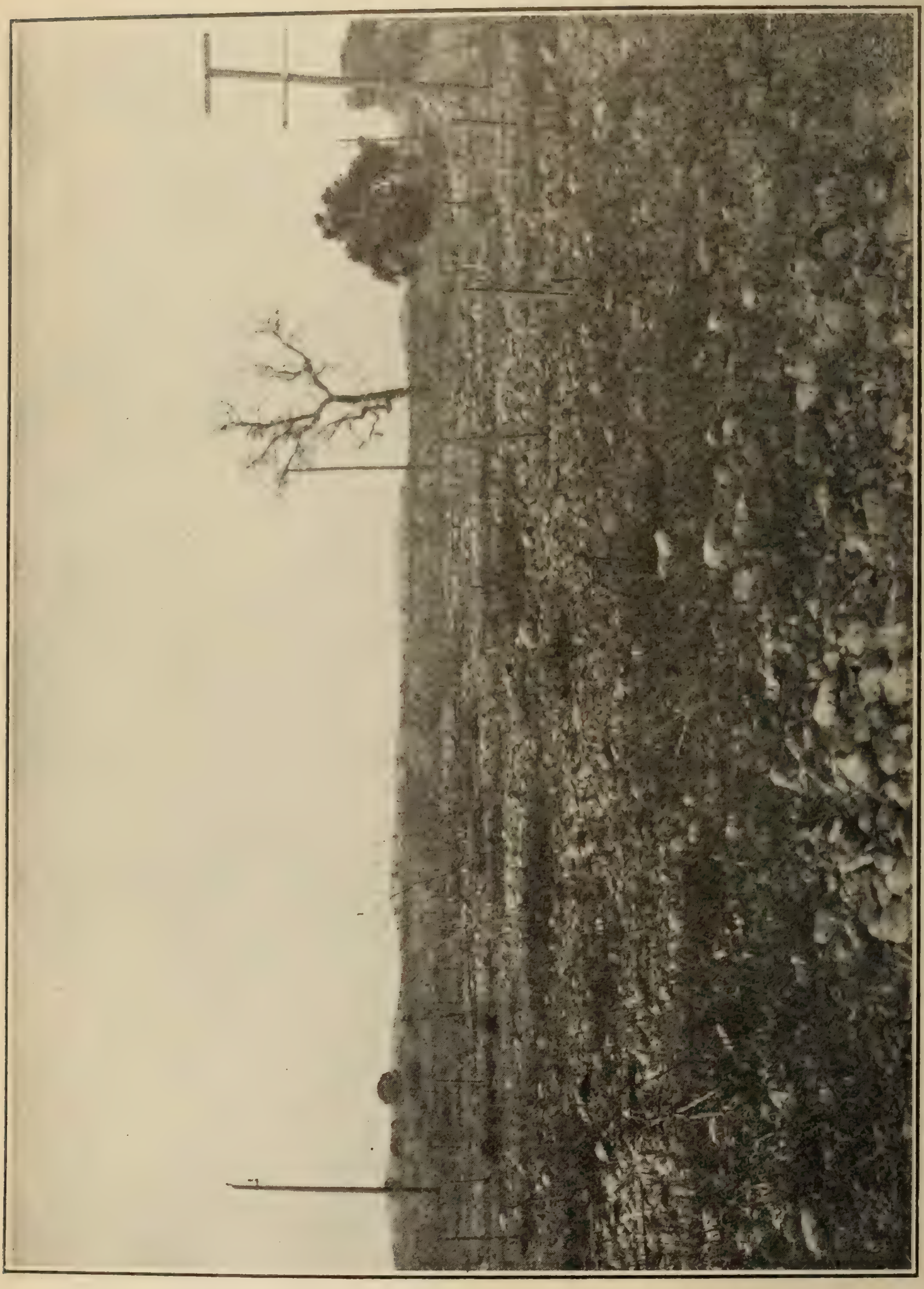
Outside of and in addition to all other considerations, I think that even the most practical minded will concede that the esthetic phases of the question of the dredged land in California cannot be justly overlooked. While these may be of only minor importance in connection with the hydraulic gravel beds of the Oroville district and the remains of the placer mines there, they certainly are of very grave moment in some of the other districts which have been mentioned above, as representing the fields in which dredging activities are being carried out. For example, the beautiful shores of the American River, along which are to be found some of the most picturesque and pleasing views in the State, are in certain portions being converted into the desolate condition of a wide expanse of cobblestone hills of irregular height. The same is also true of other sections of the areas now being dredged in the State. The citizens of California, and for that matter of this country, are not justified in allowing, without restraint or hindrance, the disfigurement of a large acreage of land, even though that land may have no large financial value as compared with the total amount of wealth obtained through dredging it. It is my point of view, however unjustified it may be, that anything that contributes to the natural beauties of this State should be as much entitled to the shielding influence of conservation as these things which contribute to her material wealth. I mention this here, because not only a considerable acreage of country has already been disfigured by the dredging but because I anticipate the possibility of such large acreages in the future being similarly made desolate through the same industry. The question naturally arises, "Where shall we stop the process of desolation and can we stop a portion of it if the rest be allowed to go on?" These questions must have definite answer from those who are looking forward to the future policy of the State in such matters.

GENERAL REMARKS.

Without assuming in any way the attitude of the extremist in conservation matters and looking at this question of the dredged lands in California from the broadest possible point of view, including the agricultural, I cannot see how I can come to any other conclusion than that dredging of land in this State, in the final analysis, is, and must continue to be, a distinct detriment to the agriculture of the



Young eucalyptus trees planted on lands of the Natomas Company.



Young trees as they look a year or two after planting.

State, to say nothing of the other phases of the question above considered; this, despite the fact that the full recognition is given to the various arguments put forth that the large amount of wealth obtained through dredging per acre may give larger returns than the same lands agriculturally managed may give to many generations of farmers. Further than that, it is impossible at the present time to say whether or not the reclamation of these dredged lands will be possible in such a manner as to make them sources of income to average farmers. While with the attitude of the scientific man, I cannot deny that the possibility, and even the probability, of this condition may exist, I cannot help but entertain some grave doubts with reference to the matter.

It is true that large acreages of land so far dredged have been agriculturally valueless and to that extent the dredging companies have not seriously injured the agriculture of California. It is true, moreover, that large acreages of the land thus far dredged were, prior to dredging, in such condition that the further operations of the dredger did not seriously change the appearance of the country. It is also true that an enormous amount of wealth is being annually taken out of the dredged fields which may represent, in some cases, far larger amounts of money than those fields will yield, agriculturally, in a century, or more, to come. It is true that some attempts are being made by the dredging companies to reclaim that land by planting to eucalyptus and olives.

But, opposed to all these facts, it is likewise true that if an effort is not made to check the progress of the dredging companies, such large acreages as they will ultimately work are bound to include not only valueless land, but also very valuable land. It is also to be opposed to the second truthful claim of the dredging companies that, while in the past, large acreages of land turned up have not in any way changed or disfigured the country, that at the present time, and still more largely in the future, large acreages turned up by the dredgers will greatly disfigure and make valueless and desolate some of the beautiful parts of our State. While it may be that the total amount of wealth obtained from each acre of dredged land may be far in excess of what many generations of farmers may take out on the same land, agriculturally worked, I cannot see how this generation has a right to rob the coming generations of lands which otherwise might be made in the future to support a very considerable population. Besides, the money which is obtained through dredging does not necessarily come into circulation and probably, usually, does not do so in such a manner as to constitute a permanent source of wealth for the inhabitants of the State. The capital obtained through dredging the lands, at the present time, remains largely centered in a few hands and will more than likely remain in the hands of a few; whereas, agricultural land will continue to be a source of income to a local population much larger in number than the few benefited by the dredging for a longer number of years, even if all other features are not considered. While the most valid objection to the campaign against dredging by the dredging companies may be that the dredged land can be reclaimed, the instances cited above with reference to such attempts at reclamation are not to my mind evidence conclusive enough to make the matter practicable and assuredly profitable. In the absence of better evidence than we have on this subject, I think that we can justly consider the results thus far obtained on the reclamation of dredged lands as an argument in favor of the opposition to the dredging companies.

Accompanying my report, I am submitting a series of photographs taken by Mr. Frank Adams, who was with me on my visits to Oroville and Folsom, which show the conditions of the dredged lands and the efforts at reclamation being made. They will help to give an idea as to the appearance of the country in which the dredging operations are being carried on.

Respectfully submitted.

CHAS. B. LIPMAN.

EXHIBIT F.

California State Board of Forestry, Sacramento, May 15, 1912.

Conservation Commission, 702 Mills Building, San Francisco, California.

Gentlemen: I enclose for your information, the first installment of data collected on forest taxation in California. This is the first time that material of this character has been assembled. Although the figures are estimated, they are just as accurate as can be obtained without handling each tax receipt for the several counties. It is impossible to get them exact at this time because the work is very expensive. The counties have never compiled this information but I believe the figures to be pretty close and will serve as a guide in determining what effect a proper tax on yield would have on the income of these counties dependent chiefly upon revenue derived from timber taxation. It will be necessary, as soon as funds are available, to secure, in addition to the lowest and highest rate for timber land and cut-over land, the percentage of the area assessed at the various rates. This means again, the handling of each tax receipt which is a more expensive piece of work than could be undertaken at present. These figures are sufficient, at least, to show the need for some adjustment in the application of the present method, that there may be a more uniform basis for assessment of similar timber land equally accessible or inaccessible.

There will be sent to you, as soon as it can be type-written, a summary of what other states are doing, showing briefly, existing laws; which states have made studies of forest taxation, and those where studies are being contemplated; together with an alphabetical list of owners showing the assessed amount, by acres, of timber land and cut-over land, by counties, and the total. Fire data is in the course of preparation and will be gotten out as soon as possible.

Yours very truly,

G. M. Homans,
State Forester.

County.	Assessed valuation per acre.				Tax rate per $100.	Estimate per cent of total amount of county tax derived from timber land.
	Timber land.		Cut-over land.			
	Lowest.	Highest.	Lowest.	Highest.		
Alpine	$3 00	$3 00	----------	----------	$2 00	
Amador	7 50	7 50	$2 50	$3 00	2 20	
Butte	2 50	10 00	1 25	2 50	2 30	
Calaveras	10 00	10 00	1 25	4 00	2 25	
Del Norte	20 00	67 50	3 00	5 00	1 75	75 to 80
El Dorado	10 00	10 00	2 00	2 00	2 00	
Fresno	8 00	12 50	1 50	1 50	1 64	
Glenn	2 00	10 00	2 00	2 00	1 82	5
Humboldt	2 00	60 00	4 00	6 00	1 90	40
Kern	1 33	1 33	2 00	12 00	1 20	
Lake	3 00	4 00	2 00	2 50	2 15	
Lassen	2 50	12 50	2 00	2 00	----------	25
Madera	10 00	10 00	1 50	1 50	2 30	
Marin	9 00	9 00	9 00	9 00	1 55	
Mariposa	12 50	25 00	3 50	3 50	1 70	25
Mendocino	10 00	10 00	2 50	2 50	2 14	50
Modoc	5 00	12 00	2 00	2 50	1 60	33
Mono	2 50	3 00	1 50	2 00	2 00	
Monterey	1 25	4 00	1 25	4 00	1 55	
Nevada	2 00	5 00	1 00	1 00	2 50	
Orange	41 00	41 00	----------	----------	1 50	
Placer	4 00	6 00	1 00	1 00	2 25	15
Plumas	8 00	12 00	2 00	2 00	----------	65
Riverside	2 18	2 18	----------	----------	2 00	
San Benito	----------	----------	1 50	1 50	1 70	
San Bernardino	2 25	7 50	2 00	3 00	2 50	
San Diego	1 50	1 50	----------	----------	2 00	
San Luis Obispo	1 25	1 25	----------	----------	2 11	
San Mateo	8 00	12 00	2 00	5 00	1 85	
Santa Cruz	10 00	50 00	5 00	8 00	2 10	
Shasta	5 00	10 00	50	2 00	2 24	25
Sierra	2 50	6 00	1 00	1 00	2 00	
Siskiyou	6 00	7 00	1 00	1 00	2 00	65
Sonoma	3 00	50 00	4 00	5 00	1 60	
Tehama	3 00	10 00	50	2 00	----------	
Trinity	5 00	10 00	1 00	1 00	2 60	50
Tulare	2 50	30 00	1 50	1 50	1 70	
Tuolumne*	10 00	80 00	2 00	2 00	1 95	
Yuba	5 00	5 00	2 00	2 00	2 40	

*Big tree tracts are assessed for $80.00, other timber land for $10.00.

FOREST TAXATION BY COUNTIES.

Alameda County.

There is no timber land in Alameda County. The assessor estimates that from 85 to 90 per cent of the total tax is received from incorporated cities. An actual examination of the land is made annually. In assessing orchard land, the fruit trees are not separated from the land. The assessed value of lands ranges from $4.00 to $600.00 per acre. The assessor estimates that these assessed values represent 60 per cent of the actual value. There are no regular rules for assessing. A raise is expected in assessed values this year. The tax rate in 1911 was $1.34 per $100.00 on land outside of the cities. There are no sawmills in the county.

Alpine County.

There is only a small area of timber land in this county (6,033 acres). In assessing, the trees are not separated from the land. No cruises are made. The assessed value of the timber land is $3.00 per acre, and of the farm land $12.00 to $30.00 per acre. The tax rate in 1911 was $2.00 per $100.00. No raise in values is expected. There is one small sawmill in the county. The largest proportion of the total tax is contributed by the farming land.

Amador County.

This county has considerable timber land. No cruises are made and the work is not systematized. The trees are not separated from the land. Timber land is assessed at $7.50 per acre, cut-over land at $2.50 to $3.00 per acre, and grazing land at $2.00 to $3.00 per acre. The tax rate on land outside of cities was $2.20 per $100.00 in 1911. The assessor estimates that the assessed value equals about 60 per cent of the actual value. An increase in the assessed values was made in 1911. The assessor is in favor of having the timber cruised.

Butte County.

This county has considerable timber land. An actual examination of the greater part is made annually, and part of the land is cruised by the deputy assessor. The timber land is divided into three classes, the first being assessed at $8.00 to $10.00 per acre, the second at $5.00 to $7.00 per acre, and the third at $2.50 to $6.00 per acre. Cut-over land is assessed at $1.25 to $2.50 per acre. The tax rate in 1911 was $2.30 per $100.00. The average actual value of the timber land was estimated to be about $24.00 per acre. There are no plans for reform in this county and the people are well satisfied with the present method of taxation.

Calaveras County.

There is considerable timber land in this county. The trees are not separated from the land, and no cruises are made. There is some talk of hiring a cruiser, but the county is afraid of the cost. The tax rate was $2.05 per $100.00 in 1911. The assessed value of timber land is $10.00 per acre, of cut-over land $1.25 to $4.00 per acre, and chaparral land $2.50 to $5.00 per acre. The actual values are represented at $8.00 to $20.00 per acre.

Contra Costa County.

There is no timber land in this county. The largest proportion of the total county tax is contributed by manufacturing corporations. An actual examination of the land is made annually. In taxing orchard land, the fruit trees are separated from the land. The tax rate was $1.50 per $100.00 in 1911. The average assessed value of the ranch land is estimated to be $35.00 per acre, of chaparral land $3.00 to $6.00 per acre, and of fruit trees $20.00 to $40.00 per acre. The assessor estimates the assessed value to be 60 per cent of the actual value. There are no sawmills in the county.

Del Norte County.

This county has a comparatively large area of timber land. Neither an actual examination nor a cruise of the timber is made. The assessed valuations have been raised about 60 per cent since 1906. In determining the assessed values, the trees are not separated from the land. The timber land is assessed at $20.00 to $67.50 per acre, and the average assessed value for spruce being $20.00 per acre, and for redwood about $35.00 per acre. It is estimated that 75 to 80 per cent of the total county tax comes from the timber lands. There are no plans of reform. Cut-over land is assessed at $3.00 to $5.00 per acre. The tax rate was $1.75 per $100.00 in 1911.

El Dorado County.

There is considerable timber land in this county. The county has no ownership of plats and shows a great lack of system. The trees are not separated from the land. No examinations or cruises are made. The timber land is assessed at $10.00 per acre, which is a great increase over 1910. The cut-over land is assessed at $2.00 per acre and the chaparral land at $2.50 to $5.00 per acre. The tax rate was $2.00 per $100.00 in 1911. The assessor estimates that the assessed value equals 50 to 60 per cent of the actual value. The general sentiment in the county is in favor of securing a better knowledge of the timber resources. There are no sawmills in this county.

Fresno County.

This county has a small area of timber land. No cruises or actual examinations are made of the timber land, and the trees are not separated from the land. The timber is divided into two classes, the first being assessed at $12.50 per acre and the second at $8.00 per acre. The tax rate was $1.64 per $100.00 in 1911. Cut-over and chaparral lands are assessed at $1.50 per acre. The actual value of timber land was estimated to be about $50.00 per acre. No plans of reform are being discussed, but the assessor is thinking of raising the assessed values.

Glenn County.

This county has a small area of timber land. No cruises are made and the trees are assessed at $2.00, $3.00, $4.00, $5.00, $6.00, $8.00, and $10.00 per acre. Cut-over land is assessed at $2.00 per acre and the chaparral land at $2.00 and $3.00 per acre. The assessor estimates that the assessed value represents 60 per cent of the actual value. The tax rate in 1911 was $1.82 per $100.00, depending upon the school district. There was no talk of reform.

Humboldt County.

This county has a large area of timber land. No cruises are made and the trees are not separated from the land. Redwood land is assessed at $15.00 to $60.00 per acre, pine and tan bark oak land at $2.00 to $10.00 per acre. Cut-over land is assessed at $4.00 to $6.00 per acre. The assessor estimates that the assessed value equals about 50 per cent of the actual value, and that about 40 per cent of the total county tax was derived from timber land. The tax rate in 1911 was $1.90 per $100.00. The general sentiment of the county was in favor of cruising if it would not be too expensive.

Inyo County.

There is no timber land in Inyo County. The sage brush land is valued at about $3.00 per acre and the farm land up to $100.00 per acre. The assessor estimates the assessed value to be about 60 per cent of the actual value. The tax rate in 1911 was $2.00 per $100.00. There are no sawmills in the county.

Kern County.

There is very little timber land in Kern County, and what is found is assessed at $1.33 per acre. Cut-over land is assessed at $2.00 to $12.00 per acre. The actual value of the timber land was estimated to be $2.75 to $3.00 per acre. No cruises are made. The tax rate in 1911 was $1.20 per $100. There is one sawmill in Kern County.

Kings County.

Kings County has no timber land. The grazing land is assessed at $2.50 per acre. The principal revenue of the county comes from the fruit lands. The fruit trees are assessed separately. Fruit and farm land is assessed at $40.00 to $100.00 per acre. The tax rate in 1911 was $1.65 per $100.00. There are no sawmills in the county.

Lake County.

This county is mostly agricultural and has very little timber land. No examinations and no cruises are made of the timber land and the trees are not assessed separately. Timber land is assessed at $3.00 to $4.00 per acre, cut-over land at $2.00 to $2.50 per acre and chaparral land at $1.25 per acre. The tax rate in 1911 was $2.15 per $100.00. It was estimated that the timber land was actually worth $7.00 to $9.00 per acre. The assessor contemplates raising all the assessed values in the county.

Lassen County.

This county has a large area of timber land. In 1905, this was cruised and classified by an expert cruiser. The timber land was divided into four classes, class A being assessed at $12.50 per acre, class B at $7.50 per acre, class C at $5.00 per acre, and class D at $2.50 per acre. The cut-over land is assessed at $2.00 per acre and the chaparral at $2.00 to $3.00 per acre. The assessor estimates that the assessed values represent about 30 per cent of the actual value. The timber land is recorded on separate plats. It was estimated that about 25 per cent of the total county tax was derived from the timber land. The assessor is contemplating raising the assessed values of the timber land. There was a flat rate of $2.50 per acre on the timber land in Lassen County previous to the cruises.

Los Angeles County.

There is no timber land in this county. In 1911 the tax rate was $1.20 per $100.00. The assessor estimates that the assessed values represent 25 to 40 per cent of the actual values. The fruit trees are assessed separately. There are no sawmills in the county. Chaparral land is assessed at $8.00 to $100.00 per acre, and fruit land up to $600.00 per acre.

Madera County.

This county has a rather small area of timber land. No cruises are made and the trees are not separated from the land. In 1911 the tax rate was $2.30 per $100.00. The assessed value of timber land was $10.00 per acre (will be $15.00 in 1912), of cut-over land was $1.50 per acre (will be $2.50 in 1912), and of chaparral $1.50 per acre. The assessor estimates that the assessed values represented 50 per cent of the actual value.

Marin County.

The timbered area in this county is small. There are no sawmills in the county. Cruises are not made and the trees are not separated. In 1911 the tax rate was $1.55 per $100.00. The assessed value of timber land was about $9.00 per acre and for cut-over land about the same. No plans of reform were being discussed.

Mariposa County.

There is considerable timber land in this county. No cruises are made, but examinations are made at irregular intervals. The trees are not assessed separately. The timber land is divided into two classes for assessment purposes, the first being assessed at $25.00 per acre and the second at $12.50 per acre. Cut-over land is assessed at $3.50 per acre and chaparral at $3.50 to $4.00 per acre. In 1911, the tax rate was $1.70 per $100.00. It was estimated that the actual value of the timber land was about $50.00 per acre. The assessed values were raised in 1911. The assessor estimates that 25 per cent of the total county tax was derived from timber land. There were no plans of reform in this county.

Mendocino County.

The timbered area in Mendocino County is very large. No cruises and no actual examinations are made and the trees are not assessed separately. The timber land is assessed at about $10.00 per acre, the chaparral land at $2.50 per acre, and the cut-over land at $2.50 per acre. In 1911 the tax rate was $2.14 per $100.00. It was estimated that the actual value of the timber land ranged from $10.00 to $100.00 per acre. No change has been made in the assessed values for nearly ten years. The timber lands probably contribute about 50 per cent of the total county tax. The general sentiment is in favor of raising the assessed values.

Merced County.

There is no timber land in Merced County. Grazing land is assessed at $4.00 per acre, and farm land at $10.00 to $100.00 per acre, and chaparral land at $1.25 to $2.50 per acre. In 1911 the tax rate was $2.15 per $100.00. There are no sawmills in the county.

Modoc County.

There is a large area of timber land in this county. A cruise of the timber was made by the county surveyor in 1908 and 1909; it was divided, for assessment purposes, into three classes. Class A is assessed at $12.00 per acre, class B at $8.50 per acre, and class C at $5.00 per acre. Cut-over land is assessed at $2.00 to $2.50 per acre. The timber lands are recorded in a separate plat book, showing the class in which each subdivision belongs. Before this cruise was made, there was a flat rate of $2.50 per acre on all timber land. It was estimated that the actual value of the timber land is from $10.00 to $50.00 per acre The assessor estimated about 33 per cent of the total county tax is derived from the timber land. In 1911, the tax rate was $1.60 per $100.00. The people of this county are well satisfied with the present system of taxation.

Mono County.

The timbered area in this county is small. No cruises are made and the trees are not assessed separately. Examinations are made very irregularly. The timber land is assessed at $2.50 to $3.00 per acre and the cut-over land at $1.50 to $2.00 per acre. The tax rate was $2.00 per $100.00 in 1911. The largest proportion of the county tax is derived from the grazing and farm land. The supervisors do not favor an increase in assessed values.

Monterey County.

This county has a rather small area of timber land. No cruises are made and the trees are not assessed separately. No actual examinations are made and there is a great lack of system in assessing the timber land. The timber, cut-over and chaparral lands are all assessed as grazing land at $1.25 to $4.00 per acre. The assessor estimated that the assessed values represented 45 per cent of the actual value Fruit land is assessed at $15.00 to $225.00 per acre. There are no sawmills in the county.

Napa County.

There is no timber land in this county. The principal tax revenue comes from the ranch land. The fruit trees are not assessed separately. Examinations of the land are made annually. Ranch and fruit land is assessed at $25.00 to $300.00 per acre, and chaparral land, which is used for grazing, at $2.00 to $5.00 per acre. The assessor estimated that the assessed value represents 50 to 60 per cent of the actual value. The tax rate was $1.76 per $100.00 in 1911. There are no sawmills in the county.

Nevada County.

The timbered area is rather small. No cruises are made and examinations are made at irregular intervals. The trees are not assessed separately. Timber land is assessed at $2.00 to $5.00 per acre, cut-over land at $1.00 per acre, and chaparral, which is used for grazing, up to $10.00 per acre. The assessor estimates that this represents about 60 per cent of the actual value. The tax rate in 1911 was $2.50 per $100.00. There were no plans for reform.

Orange County.

There is very little timber land in this county. The trees are assessed separately. The tax rate was $1.50 per $100.00 in 1911. The principal revenue comes from the orange and walnut groves. Timber land is assessed at $17.68 per acre, and the trees at $23.32 per acre. Fruit land is assessed at $25.00 to $225.00 per acre and the fruit trees at $50.00 to $225.00 per acre. Grazing land is assessed at about $5.00 per acre. The assessor estimates that the assessed value represents 30 per cent of the actual value. There are no sawmills in the county.

Placer County.

This county has a large area of timber land. No examinations are made, but the trees are assessed separately. The timber land is assessed at a flat rate of $1.00 per acre and the trees are assessed $3.00, $4.00, or $5.00 in addition. Cut-over land is assessed at $1.00 per acre and chaparral or grazing land at $4.00 to $10.00 per acre. It was estimated that the actual value of the timber land was $20.00 to $30.00 per acre. About 15 per cent of the total county tax is derived from the timber land. In 1911, the tax rate was $2.25 per $100.00. The assessor favors cruising, but the Board of Supervisors voted against this proposition.

Plumas County.

There is a large area of timber land in this county. No examinations and no cruises are made, but the valuations are raised from year to year. The timber land is assessed at $8.00, $10.00 and $12.00 per acre, chaparral land at $2.00 to $2.50 per acre and cut-over land at $2.00 per acre. The tax rate in 1911 varied from $1.65 to $2.80 per $100.00 depending upon the school district. The actual value of the timber land ranges from about $20.00 to $50.00 per acre. The assessor estimated that 65 per cent of the total tax was derived from timber land, 2 per cent from chaparral land, and about 1 per cent from the cut-over land. The present system is unsatisfactory and cruising the timber is being advocated.

Riverside County.

The timbered area in this county is small. The principal tax revenue comes from the fruit land. A four-year-old grove is assessed at $60.00 per acre and this is increased $30.00 per acre annually until $225.00 per acre is reached. The land and water rights are assessed separately, and the maximum valuation for the three is $500.00 per acre. The tax rate was $2.10 per $100.00 in 1911, exclusive of bonded school tax. Timber and grazing land are not separated and no examinations of them are made. The assessor estimated that the assessed values represent about 30 per cent of the actual values. The present methods of taxation are unsatisfactory.

Sacramento County.

There is no timber or cut-over land in this county. An actual examination of all the land is made annually. Regular rules for assessing are in vogue. The tax rate was $1.69 per $100.00 in 1911, on land outside of cities. The assessor estimates that the assessed values represent 60 per cent of the actual value. Grazing land is assessed at $5.00 per acre, fruit and ranch lands at $15.00 to $500.00 per acre, and dredging land at $150.00 to $750.00 per acre. No plans of reform are being discussed. There are no sawmills in the county.

San Benito County.

There is very little timber land, but a great area of chaparral land in this county. In 1911, the tax rate was $1.70 per $100.00. Chaparral land is assessed at $1.00 to $2.50 per acre, cut-over land at $1.50 per acre, fruit land at $120.00 per acre, and fruit trees at $50.00 per acre. No actual examinations are made. The assessor estimates that the assessed value represents 45 per cent of the actual value. There are no sawmills in this county.

San Bernardino County.

The timbered area in this county is small, and the fruit land is the principal source of revenue. No cruises are made but the values are raised annually to allow for growth. Timber land is assessed at $2.25 to $7.50 per acre, cut-over land at $2.00 to $3.00 per acre, fruit land at $100.00 to $350.00 per acre, and fruit trees at $20.00 to $200.00 per acre. The assessor estimates that the assessed values represent 30 per cent of the actual value. The general sentiment is that the tax rate is too high and plans for reform are being discussed. In 1911, the tax rate was $2.50 per $100.00.

San Diego County.

This county has a small area of timber land, but the principal revenue comes from the fruit land. The tax rate was $2.00 per $100.00 in 1911. The forest trees are not assessed separately. The timber land is assessed at about $1.50 per acre, chaparral land at $3.00 to $5.00 per acre and fruit trees at 30 cents per tree. The assessor estimates the assessed value to be 30 per cent of the actual value. There is one small sawmill in the county.

San Joaquin County.

There is no timber land in this county, and the greater part of the revenue is contributed by the farm land. Ranch land is assessed at $10.00 to $300.00 and up to $1,000.00 per acre, in a few cases. Grazing or chaparral land is assessed at about $3.00 per acre. The assessor estimates the assessed values to be about 50 per cent of the actual values. There are no sawmills in the county.

San Luis Obispo County.

There is very little timber in this county. Apple and walnut lands are assessed at about $200.00 per acre for walnut land and $6.00 to $8.00 per acre for apple land. The assessor estimates the assessed values to be 25 per cent of the actual value. The tax rate in 1911 was $2.11 per $100.00. Chaparral and oak land is classified as grazing land and assessed $1.25 per acre. There are no plans for reform and no sawmills in the county.

San Mateo County.

There is a small area of timber land in this county. No cruises and no examinations are made. Timber land is assessed at $8.00 to $12.00 per acre, cut-over land at $2.00 to $5.00 per acre, and chaparral land at $2.00 to $50.00 per acre. The tax rate in 1911 was $1.85 per $100.00. No plans of reform were being discussed. There are four sawmills in the county.

Santa Barbara County.

There is no timber in this county, but there is a big area of chaparral land, which is assessed at $1.25 and $1.30 per acre. The tax rate was $2.34 and $2.74 per $100.00 in 1911. The general sentiment is that the present system is satisfactory.

Santa Clara County.

There is no timber land, but a great deal of chaparral land in this county which is assessed at $1.50 to $5.00 and up to $10.00 per acre in some cases. The tax rate in 1911 was $1.35 per $100.00. There are no sawmills in this county and no plans for reform.

Santa Cruz County.

Two thirds of the timber land in this county has been cut-over and is now considered as chaparral land. In 1911, the tax rate was $2.10 per $100.00. Chaparral land is assessed at $2.00 to $5.00 per acre, cut-over land at $5.00 to $8.00 per acre, timber land at $10.00 to $50.00 per acre, fruit land $50.00 to $200.00 per acre, and 25 cents to $1.75 each for fruit trees. The assessor estimates that the assessed value represents about 45 per cent of the actual value. No examinations and no cruises are made. The general opinion is that the assessed values of the timber land are too high. There are four sawmills in the county.

Shasta County.

There is a large area of timber land in this county. Examinations are made at irregular intervals and some cruising is done. The trees are not assessed separately. The timber land is divided into four classes which are assessed as follows: Class 1 at $10.00 per acre; class 2 at $8.00 per acre; class 3 at $5.00 per acre, and class 4, which is cut-over land, at 50 cents per acre. Chaparral land is assessed at $1.25 to $2.50 per acre. It was estimated that 25 per cent of the total county tax is derived from the timber land and 8 to 10 per cent from the chaparral and grazing land. The actual value of the timber land ranges from about $16.00 to $60.00 per acre. The tax rate was $2.24 per $100.00 in 1911. The assessor is in favor of cruising the timber.

Sierra County.

The area of timber land in this county is large. No cruises are made and actual examinations are only made in case of doubt. The trees are not assessed separately. Timber land is assessed at $2.50 to $6.00 per acre and cut-over land at $1.00 per acre. Proportional reductions are made when part of an area is cut over. The tax rate was $2.00 per $100.00 in 1911. It was estimated that the average actual value of the timber land is about $25.00 per acre and of the cut-over land about $2.50 per acre. No plans for reform were being discussed.

Siskiyou County.

There is a very large area of timber land in this county. The trees are not assessed separately and neither cruises nor actual examinations are made. Timber land is assessed according to accessibility at $6.00 and $7.00 per acre, and cut-over land at $1.00 per acre. In 1911 the tax rate was $2.00 per $100.00. It was estimated that 65 per cent of the total tax is derived from timber land, 15 per cent from chaparral, desert and grazing land, and 5 per cent from the cut-over land. Chaparral land is assessed at $2.50 per acre. The general sentiment favors cruising. There are fifty-two sawmills in this county.

Solano County.

There is no timber land in this county. The principal tax revenue comes from the fruit and ranch land. An actual examination is made each year. The tax rate in 1911 was $1.60 per $100.00. Land is assessed at $10.00 to $300.00 per acre, and fruit trees at $40.00 per acre. The assessor estimates that the assessed values represent 60 to 70 per cent of the actual values. There are no sawmills in the county and no plans for reform.

Sonoma County.

There is a large area of timber land in this county. No cruises are made and the trees are not assessed separately. An actual examination is made every four years. The oak land is assessed at $3.00 per acre, redwood at $8.00 to $50.00 per acre, cut-over land at $4.00 to $5.00 per acre and chaparral at $2.00 per acre. The assessor estimates that the assessed values represent 30 to 50 per cent of the actual value, and believes this to be high enough. In 1911, the tax rate was $1.60 per $100.00. The principal revenue in this county comes from farm land.

Stanislaus County.

There is no timber land in this county, also there are no sawmills. The principal tax revenue comes from ranch lands. The tax rate was $1.85 per $100.00 in 1911.

Sutter County.

There is no timber land in this county, also no sawmills. Examinations of the land are made yearly. Pasture land is assessed at $2.50 to $10.00 per acre. The tax rate in 1911 was $1.50 per $100.00. The present system of taxation is satisfactory to the people.

Tehama County.

This county has a large area of timber land. No cruises nor examinations are made and the trees are not assessed separately. The timber land is divided into four classes, which are assessed as follows: Class 1 at $3.00 per acre; class 2 at $5.00 per acre; class 3 at $8.00 per acre, and class 4 at $10.00 per acre. Cut-over land is assessed at 50 cents to $2.00 per acre, and chaparral at $1.50 to $2.50 per acre. The average actual value of the timber land is estimated to be about $19.00 per acre. The people seem fairly satisfied with the present methods, but the general sentiment favors cruising.

Trinity County.

This county has a large area of timber land. No cruises and no examinations are made. The trees are not assessed separately. Timber land is assessed at $5.00, $8.00 and $10.00 per acre, very poor timber land is assessed at $2.50 and $3.00 per acre, cut-over land at $1.00 per acre and chaparral at $1.00 to $1.50 per acre. The actual value of the timber land is estimated to be from $10.00 to $20.00 per acre. In 1911 the tax rate was $2.60 per $100.00. The assessor estimates that the timber land contributes 50 per cent and the chaparral land 10 per cent of the total tax. The general sentiment of the county is in favor of cruising.

Tulare County.

This county has a rather large area of timber land. The trees are not assessed separately. No examinations and no cruises are made. Timber land is assessed at $2.50 to $30.00 per acre, cut-over land at $1.50 per acre and grazing and chaparral land at $2.50 per acre. The assessor estimates the assessed values to be about 50 per cent of the actual value. The tax rate was $1.70 per $100.00 in 1911. There were no plans for reform.

Tuolumne County.

There is a rather large area of timber land in this county. No cruises or examinations are made. The trees are not assessed separately. Ordinary timber land is assessed at $10.00 per acre. ''Big Tree'' tracts at $80.00 per acre, cut-over land at $2.00 per acre, and chaparral land at $1.25 to $3.25 per acre. The actual value of the ordinary timber land is estimated to be about $18.00 per acre. The tax rate in 1911 was $1.95 per $100.00. There were no plans for reform.

Ventura County.

There is very little timber land in this county. Most of the revenue comes from the fruit lands. Fruit land is assessed at $250.00 to $300.00 per acre, and fruit trees at $1.00, $2.00, and up to $4.00 each. The tax rate in 1911 was $1.70 per $100.00. The timber is only used locally and there is no systematic method for determining the valuation of timber land.

Yuba County.

This county has considerable timber land. No cruises and no examinations are made, but the assessed values are determined by the general knowledge of the assessor. Timber land is assessed at $5.00 per acre, cut-over land at $2.00 per acre, and chaparral and grazing land at $2.00 per acre. The tax rate in 1911 was $2.40 per $100.00. There were no plans for reform.

REPORT

OF THE

State Water Commission

OF

CALIFORNIA

1912

FRIEND WM. RICHARDSON, SUPERINTENDENT OF STATE PRINTING
SACRAMENTO, CALIFORNIA
1912

REPORT OF THE STATE WATER COMMISSION OF CALIFORNIA.

SACRAMENTO, CALIFORNIA.

To his Excellency, the Governor, State of California.

SIR: In compliance with the provisions of Chapter 41, Statutes of 1911, creating and establishing this Commission, we have the honor to submit a report of the work performed from March 24 to November 1, 1912.

Respectfully submitted this first day of January, 1913.

STATE WATER COMMISSION,

CHARLES D. MARX, Chairman.

LOUIS R. GLAVIS, Secretary.

STATE WATER COMMISSION.

COMMISSIONERS.

HIRAM W. JOHNSON, *Governor*	Sacramento, California.
CHARLES D. MARX, *Chairman*	Palo Alto, California.
S. C. GRAHAM	Los Angeles, California.
HAROLD T. POWER	East Auburn, California.
W. F. McCLURE	Sacramento, California.
LOUIS R. GLAVIS, *Secretary*	San Francisco, California.

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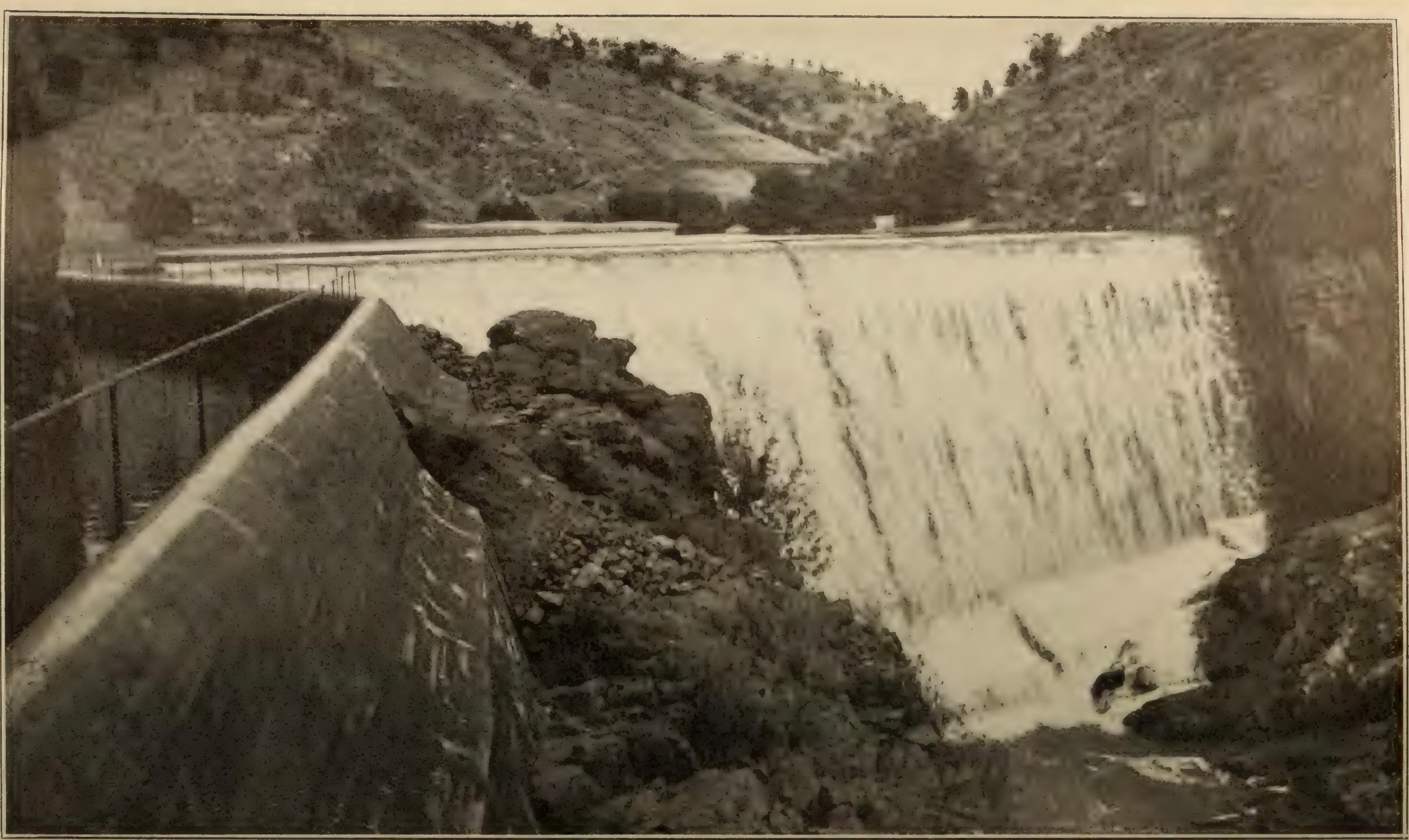


REPORT

This Commission assumed its duties on March 24, 1912, having succeeded the State Board of Control, Water Power, created under the provisions of Chapter 406, Statutes of 1911. The State Board of Control, Water Power, was organized May 4, 1911, and since its records were delivered to us, we shall briefly outline the nature of the work performed by it during the nine months of its existence.

The applications received by the Board for permits to appropriate the public waters of the State for power purposes were as follows:

North Fork American River	2
Bishop Creek	2
Bull Creek	1
Butano Creek	1
Cache Creek	2
Coffee Creek	1
Cottonwood Creek	1
Coyote Creek	1
Fall River	1
Feather River	6
Merced River	1
Mountain Home Stream	1
North Cañon	1
North Eel River	1
Owens River	1
Peavine Ravine	1
San Joaquin River	1
Smith River	2
Taylor Creek	1
Trinity River	1
Truckee River	2
Ward Creek	1

The fees collected by the Board of Control, Water Power, and deposited with the Controller, amounted to $310.00. An appropriation of $50,000.00 was made for the purpose of carrying out the provisions of the act creating the Board of Control, Water Power. The sum of $37,083.79 still remained unexpended when the present Commission succeeded the Board of Control, which was in existence for nine months. The sum of $12,916.21 was therefore expended by the latter.

The Board of Control, Water Power, made a complete record of all water filings for power purposes on each and every stream in the State of California. Examinations by the engineers of the Board disclosed the fact that fully ninety per cent of the filings made in accordance with the old method of the location of water filings were not made in good faith, and that practically nothing whatever had been done by these water claimants towards the development of the streams on which they had filed.

Many of these speculative filings have been the cause of much litigation, because when attempt is made by *bona fide* claimants to actually develop water power, they are compelled either to buy off the speculator or have his filing declared by the courts to be invalid. Judicial proceedings are expensive and naturally require much time before being finally determined, hence, in order to avoid delay, a person desiring to really make a power development usually purchases the mere water rights of the speculator. Since capitalists are loth to invest where they are immediately confronted with expensive litigation they become discouraged and indignant, so that the project is abandoned, and as a result the water not only continues to remain unused, but also the State's commercial progress is retarded and many are deprived of the employment and benefits that necessarily arise in the development of water power. Under the law creating this Commission speculative filings are impossible. Persons desiring the use of water for the generation of electricity or other power, must make application to this Commission setting forth the point where the water is to be diverted from the stream; the point where it is to be returned to the stream; the amount of water desired; the amount of water to be developed and the purpose for which it will be used. The Commission upon receipt of an application causes an investigation to be made to determine whether the applicant is in good faith; whether the greatest development of the stream can be secured by the diversion of the water at the point mentioned, and whether the issuance of a permit would tend to injure any existing vested water right. After such investigation is concluded, a public hearing is held where any one interested may appear for or against the allowance of the application. The witnesses who appear are sworn and their testimony taken. With this testimony and the civil engineer's report the Commission is in possession of sufficient data to decide whether or not the granting of a permit to the applicant will be to the best interests of the State.

Since March 24, 1912, to November 1, 1912, this Commission has received thirty-three applications for permits to appropriate the public waters of the State for power purposes. The following is a list of such applications:

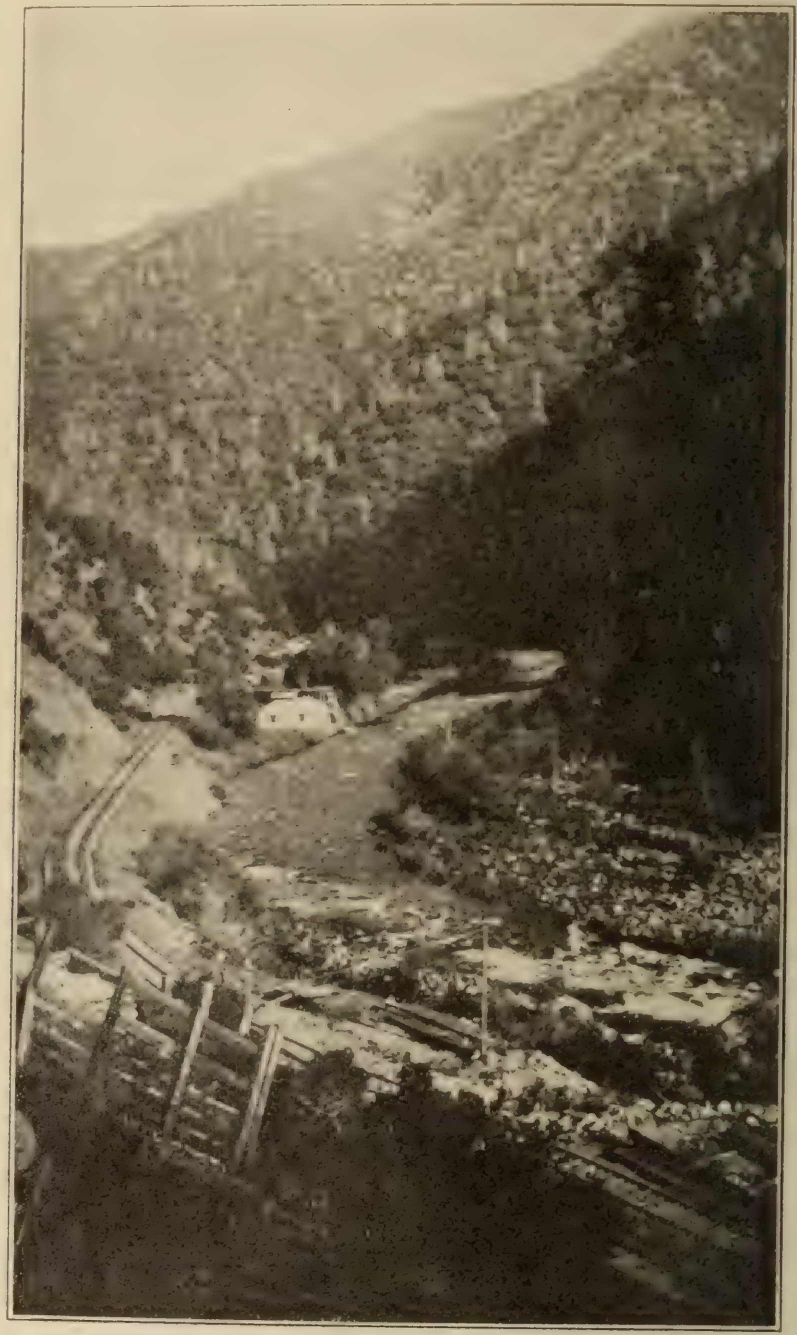
American River	1
Big Creek	1
Big Pine	2
Big Sur River	2
Big Tujunga River	1
Bull Creek	1
Butano Creek	1
Coffee Creek	1
Coyote Creek	1
Deer Creek	1
Fall River	1
Feather River	2
Goodale Creek	1
Hamlin Creek	1
Little Rock Creek	1
Merced River	1
Mountain Home Stream	1
North Eel River	1
Rawson Creek	1
San Joaquin River	3

Silver Cañon Creek	1
Smith River	1
South Fork Smith River	1
Trinity River	1
Truckee River	1
Volcano Canyon	1
Weaver Lake	1
West Branch, North Fork, Yuba River	1
North Branch, West Branch of North Fork, Yuba River	1
Total	34

Of these applications seven have been canceled, either on account of the abandonment of the application by the person filing it, or because after careful and diligent consideration of the testimony introduced at the public hearing, it was deemed in the interest of the State that they be ordered canceled. Permits have issued for fourteen applications. The developments under the applications approved called for a total expenditure of $6,125,325.00 and the theoretical horsepower capable of development under these permits amounts to 132,648 horsepower. Of the applicants holding permits for the development of water power, one has already completed the construction of his plant and license has issued. Under the terms of such license the State will receive an annual revenue of ten cents for each theoretical horsepower capable of development under the works as constructed.

The federal law relating to the disposition of water power sites on the public domain has been proven totally inadequate. It provides for a permit to use the right of way for the occupancy of the public lands, and for the occupancy of certain National Reserves—a mere license—revocable at the discretion of the head of the federal department who granted it. The power of revocation without compensation has caused great alarm in the eyes of capital, and rightfully. The Government officials, favoring permits that contain the right of revocation by the Secretary of the Department, defend their position upon the ground that such powers of revocation would not be exercised without justification. The confidence that the power to revoke permits would not be abused by the head of the Department was dispelled by the action of a former Secretary of the Interior in calling upon the city of San Francisco (which had been granted a permit under the act for its municipal supply in the Hetch Hetchy), *to show cause why the permit should not be canceled.* This action was taken regardless of the fact that the city of San Francisco had complied with all the terms of the permits. The Department of Agriculture in administering National Forests offers no better encouragement to the person desiring to conserve and develop the waters. As a result, development has been very greatly retarded in the public land states.

For a number of years there have been pending before congress, bills concerning the occupation and use of certain portions of the public domain for water power purposes. It is universally admitted that the present legislation, consisting principally of the act of February 15, 1901, is entirely inadequate to satisfy the present popular sentiment, to encourage persons and corporations engaged in the occupation of generating electric power, or to protect consumers in the various states, all of whom have the right to demand the immediate cessation of the present enormous waste.



The plant of the Original Milling and Mining Company, on the Merced River. This Commission has issued a license to the above company.

The legislation proposed on this subject has assumed various forms, according to the individual prejudice of the person from whom it emanated. The urgency of proper legislation is everywhere admitted and so far no bill has found sufficient support to be passed by congress. This Commission, in coöperation with the Conservation Commission, believing that certain matters of State interests and expediency have not been given a full consideration in the federal water power bills introduced by congress, has arranged for a conference with the Secretary of the Interior to be held in Washington, D. C., on November 18th, for the purpose of presenting the conditions as they actually exist in this State, and the hardships that one is confronted with in the effort to develop our streams for power purposes.

A view of the San Joaquin River, just before it debouches from the foothills. Quite a few notices of water locations have been posted here, but no means of diversion have ever been constructed.

We believe that immediate action should be taken by this State to protect its interest in the waters of Lake Tahoe, and therefore recommend the institution of a suit against the State of Nevada in the United States Supreme Court for the purpose of having the waters of Lake Tahoe and the Truckee River duly apportioned in accordance with the decision of the *Kansas* vs. *Colorado* case. In addition to the bringing of this suit, we believe that complaint on behalf of the State should also be filed against the Truckee General Electric Company, to restrain it from storing the flood waters of the lake. The importance and necessity of instituting these suits cannot be too strongly emphasized in order that the rights of the State of California may be fully protected.

Under a coöperative agreement entered into with the United States Geological Survey, there has been prepared a complete digest of all available data concerning the flow of streams in this State. This information is contained in Water Supply Papers, Nos. 295, 296, 297, 298, 299, 300. Copies of these publications are available to the public, and may be secured upon application to the United States Geological Survey, Washington, D. C., or to this office.

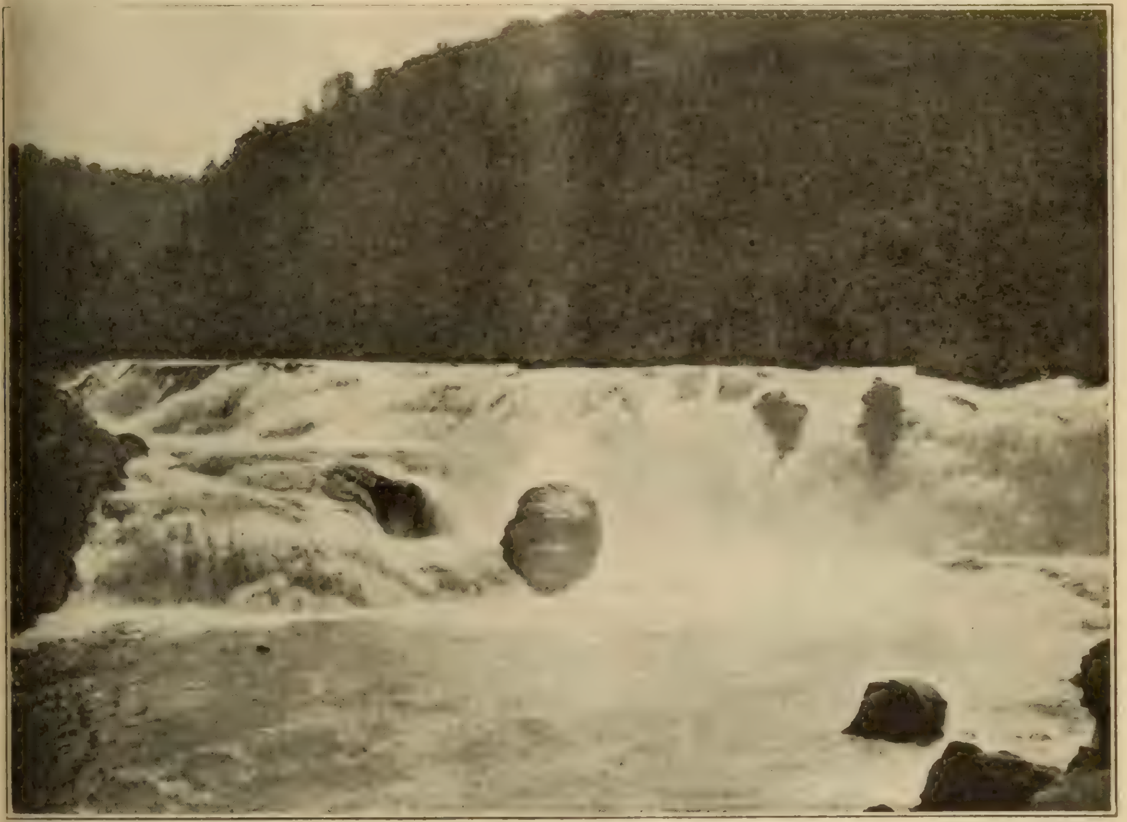
WATER POWER POSSIBILITIES ON PIT RIVER.

The statement which follows as to water power possibilities on the Pit River, power development of the Feather River, and on storage reservoir sites in the Sacramento basin, has been prepared from information furnished by Mr. M. O. Leighton, Chief Hydrographer of the Geological Survey, and by other officials of the same department.

The purpose of this statement is to give in convenient form information concerning the power possibilities of Pit River, and to designate the sections thereof that are most valuable for power development. Certain power values based on known fall and determined water supply will be given. The only thing here attempted is to give to the reader the information necessary for preliminary location of final water-power studies.

It is desired that especial emphasis be placed on the last sentence of the foregoing paragraph. Experience has shown that statements of the kind here given are grossly misunderstood, even by those who are of good repute among hydraulic engineers. For the benefit of such the Commission wishes to give assurance, viz.: *first*, that this is not intended to be a final report on the water-power privileges of the region; *second*, that the examinations necessary to the final location and adoption of a single site on any of these streams would properly consume more time and money than has been expended on the entire survey here reported; *third*, that the final development of the Pit will certainly not follow in all respects the unit divisions here suggested; *fourth*, that it would not be strange if minute study and the use of ingenuity in location would produce much more power than is estimated at some of the locations here named, and, conversely, some of the locations here described and rated may be found under present conditions of market and hydraulic practice to be quite without merit; *fifth*, that a power site which to-day may be considered unworthy a moment's consideration may in the next generation prove to be a first-class project; *sixth*, no effort has been made to study the cost of development or the market, which, in the final valuation of any site, are as important as the physical facts here considered.

Pit River is the northernmost of the larger tributaries of the Sacramento. A part of its drainage basin lies in the state of Oregon. The upper portion of the drainage area lies in country that is geologically a part of the Great Basin, the average elevation of which exceeds 6,000 feet above sea level. The average rainfall over this part of the Pit basin is about 10 inches annually. Consequently the region is semi-arid, and in some years quite arid. The flow characteristics of Pit River along this portion of its basin are typical of those of desert country streams. As far down as Bieber, California, above which the drainage area is 4,040 square miles, the flow of the river becomes practically negligible during August and September in all except very wet years. This run-off condition extends below Bieber to about the mouth of Fall River, where the Pit begins to cut through the Lassen Peak volcanic ridge which forms the southernmost portion of the Cascade Range and enters into the Sacramento Valley. Over the lower portion of the Pit basin the rainfall is 40 to 50 inches annually. The river is fed by many large springs, shows comparatively steady flow characteristics, and yields a relatively large amount of water during the minimum months of August and September. Fall River alone brings into the Pit a contribution of about 1,500 second-feet derived from springs within its basin, while Hat, Burney, Kosk and Montgomery creeks, McCloud River, and other lower tributaries, largely spring-fed, contribute materially to a steady regimen of flow.



Pit River Falls.

From the foregoing it will be seen that for water-power purposes the Pit River basin must be considered in two quite distinct parts. The first is that portion occupying the Great Basin country, the contributions of which to the lower valley consist largely of flood waters and in which the summer flow is practically negligible. The following statement taken from the flow records at Bieber show clearly the small value of the stream in its uncontrolled state in the dry period:

Year.	Minimum flow. Second-feet.	Duration of minimum flow. Days.	Average flow in second-feet during—		
			July.	August.	September.
1904	10	1	83	33	1.65
1905	0.8	2	52	9.6	1.23
1906	21	20	222	51	23.6
1907	45	8	323	72	51.5
1908	4	8	70	12	4.6

It is clear from the foregoing that the Pit basin above the mouth of Fall River is a non-productive stream from the water-power standpoint, unless provision be made for the storage of flood waters. This point will be considered farther on.

The second portion consists of the basin lying below the mouth of Fall River. For water-power purposes it is proper to treat this as a separate basin, and to neglect, except under assumptions which will later be described, the fact that the drainage from the area above passes out through the Pit. This will reduce the productive drainage area to about 1,680 square miles, at the very crest of which there is an initial flow from springs of about 1,500 second-feet.

The storage possibilities in the Great Basin portion will first be considered.

Storage—The entire flow of Pit River at Bieber can be controlled by storage reservoirs of which there are five good sites in the basin at and above this point. These sites have been surveyed by the United States Reclamation Service in connection with its studies of irrigation possibilities in the Sacramento basin.

The first and largest is the Bieber or Big Valley site. (The map of the Big Valley site has been transferred to profile sheet number 8, being one of the maps attached to this report.) A 100-foot dam located in the canyon about 7 miles below Bieber would afford a storage capacity of 3,196,000 acre-feet, an amount considerably in excess of the annual flow of Pit River. It would, however, flood some desirable land within the reservoir site which is now irrigated in its lower portion by diversion canals from Pit River and from Ash Creek. The feasibility of such a project can be determined only after thorough consideration of the cost of construction and the damages by flooding. It will be shown farther on that only about one third of the capacity of the Big Valley site will be required to control the entire flow of the Pit above Bieber. Therefore, in determining the feasibility of this reservoir, it will be important to consider the relative economy of this partial development, as compared with that of other sites in the basin. The land within the basin is said to be valued at from ten dollars to thirty dollars per acre, according to the quality of the soil and the facilities for irrigation. It is principally valuable for hay fields and stock raising.

The second reservoir site is located in Round Valley on Ash Creek, a short distance above Adin in township 39 north, range 9 east, Mt. Diablo Meridian. A dam 70 feet in height would afford a storage capacity of 184,700 acre-feet. Round Valley consists largely of meadow land in private ownership.

A third site is located in Warm Springs Valley (townships 41 and 42 north, ranges 10 and 11 east), with the dam site about 4 miles below Canby. A 70-foot dam would afford a storage capacity of 559,000 acre-feet. The entire site is in private ownership and is used for ranching purposes. The land is valued at from ten dollars to twenty dollars per acre.

A fourth site is situated in West Valley on the Lassen and Modoc county lines in township 39 north, range 14 east. A 70-foot dam located in a canyon at the mouth of the basin would afford a storage capacity of 94,600 acre-feet. The site consists of meadow land in private ownership.

The Jess Valley site, situated in township 39 north, ranges 14 and 15 east, is also in private ownership. A 60-foot dam located about 500 feet below the mouth of the basin would afford a storage capacity of 224,600 acre-feet.

Measurements of stream flow necessary to determine the most feasible storage plan are not yet available. Sufficient data have been collected at Bieber and Canby to determine the feasibility of the Big Valley and Warm Springs Valley sites, but the records that will be necessary to properly determine the relation of these sites to the other three above mentioned were started by the State Conservation Commission only about one year ago. The results are not yet of sufficient scope to make it possible to determine whether the development of these sites would reasonably compensate the low-water flow of Pit River without the development of the Big Valley or Warm Springs Valley reservoirs. Therefore, the present discussion will be wholly based on the fact that it is possible by the erection of the Big Valley reservoir to control the entire flow of Pit River above Bieber. Measurements of flow at this point are available from January 22, 1904, to September 30, 1908. This period includes a year of low water, though probably not as low as may occur in the future. Nevertheless the data can be used if a reasonable factor of safety is applied to the results. Attention is invited to the accompanying storage mass curve (Sheet Number 9) based on the recorded flow at Bieber.

A mass curve is merely a graphic representation of the discharge of a river by summation. The curve is begun by plotting the total flow for the first day, week, month, or any other suitable unit period. In the curve here discussed the month is the unit period. To the flow of the first month that of the second is added, and to the sum of these two the flow of the third, and so on throughout the entire record.

The Pit River curve shows that the total flow throughout the period above mentioned is approximately 3,570,000 acre-feet. The mass curve shows not only the total volume of water at any designated time, but also the relative rate at which the water was delivered from month to month, indicating clearly the periods of large and small flow. Accompanying this curve is a vector diagram showing the slope of the lines corresponding to a discharge of from 1,000 to 2,000 second-feet. The vector diagram may be simply explained by saying that if the mass curve of any river were a straight line taking the direction of, say the 1,000 second-foot vector, then that river would have a uniform flow of 1,000 second-feet all the year round. The fact that the mass curve of Pit River is crooked shows that its flow is not uniform, being at times more, and at other times less than 1,000 second-feet.

Pit River, above falls.

To determine the amount of storage necessary to produce a given uniform flow, the mass curve serves better than any other form of expression yet devised. In the case of the Pit River curve the straight line extending between the crests of the two largest "humps" is approximately parallel to the vector that represents a flow of 1,000 cubic feet per second. The testimony given is as follows: Starting at the crest of the first "hump," which corresponds to the month of May, 1904, the line again joins the curve at a point corresponding to the month of June, 1907. During the intervening period the flow of the river varied enormously, being at times in excess of 20,000 second-feet and at others less than 10 second-feet. What is the storage capacity that would have been necessary to maintain the flow in the river below the dam, at a rate represented by the vector that connects the crests of the two large humps on the mass curve? It is represented by the equivalent of the maximum ordinate running from the vector line to the curve, the position of which corresponds to that of December, 1905. By the ordinate scale the amount represented is about 825,000 acre-feet. This is the storage capacity that would, during the period of observation at Bieber, have enabled those in charge of the reservoir to maintain the flow below the dam at not less than a trifle in excess of 1,000 second-feet. As the available storage capacity at the Big Valley site is more than 3,000,000 acre-feet, it is apparent that only a small part thereof would require development in order to completely control the flow of Pit River below Bieber.

It will now be necessary to consider the net yield that may be produced by such a reservoir. It has already been stated that the period of observation used for constructing the mass curve does not embrace a year of extreme low water. This warrants a reduction in practical estimates of the amount indicated above as continuously available under storage. On the other hand, it should be recognized that the actual difference between the low waters in the years of record and that in an abnormally low year does not amount to much in the aggregate when compared with the large volumes that would actually be available for storage. Indeed, it might occur that it would not introduce any change in vector direction on the mass curve.

A compensating factor arises from the fact that there is considerable irrigation taking place during the low-water seasons within the basin of the proposed Big Valley reservoir. How much water is diverted from the stream is not known, but from the area of land irrigated it is easily determinable that it must be a considerable amount. A large part of this water is lost by absorption and evaporation. If the reservoir were constructed, the land would be overflowed and the irrigation would cease. Against this, however, is the evaporation loss that would take place from the reservoir surface. It is not known how much this would be, but it would probably be in excess of three vertical feet annually, an amount which markedly reduces the effective capacity of the reservoir. In view of recognized losses and the uncertainties concerning the amounts thereof, it will in subsequent estimates be conservatively assumed that the amount available from the reservoir throughout the year would be only 900 second-feet instead of 1,000 as indicated by the mass curve.

The amount of water available from that portion of the Pit basin below the proposed Big Valley reservoir will now be considered. No long-term records of flow are available, and it is necessary to make estimates based largely on certain short-term data and the excellent records on Sacramento River at Iron Canyon.

The marked difference between the run-off characteristics of the upper and lower portions of the Pit basin, previously described, make it unsafe to extend without confirmatory studies the daily run-off ratios based on Iron Canyon records up to the various power sites on the Pit between its mouth and Fall River. The only data available on the Pit are one year's records at a point near Ydalpom about 3½ miles above the mouth of McCloud River and a few observations at Henderson. There are fairly adequate data on the McCloud, and these are of material assistance in determining the yield of the Pit. The natural conditions in the basin render it possible to make a very close estimate of the minimum flow. Practically all of the precipitation over the Pit basin occurs from November to April of each year. Therefore, during the months of July, August and September the records of Iron Canyon show a gradually diminishing flow. The discharge during such periods consists entirely of the water yielded from ground storage. There are few or no complications due to increase in flow on any of the tributaries occasioned by small rains, and the whole basin is in what might be called a state of drainage equilibrium. The relations between the

A view of the Pit River.

flow at Iron Canyon and at any other point above that place on the basin are quite uniform. This is borne out by a comparison of the records at Iron Canyon on the Sacramento, and at Gregory on the McCloud. It is possible to construct a reasonably accurate rating curve based on these two series of records. It naturally follows that a rating table may be constructed for the Pit near Ydalpom on the same basis using records secured at the two places during July, August and September, 1911. Examination of the records at these two places reported in Water Supply Paper 298 of the Geological Survey, prepared in coöperation with the State Conservation Commission and the State Water Commission, will show how steady is the flow of both rivers during those two months and how gradual is the decrease in flow. Pursuing the matter in this way, the following rating table has been derived:

Relative flow of Pit River near Ydalpom and Sacramento River at Iron Canyon, July, August, and September, 1911.

Sacramento River (second-feet).	Pit River (second-feet).
4,000	2,500
4,250	2,640
4,500	2,790
4,750	2,940
5,000	3,100
5,250	3,290
5,500	3,520
5,750	3,770
6,000	4,160

The lowest flow recorded on Sacramento River at Red Bluff occurred from September 7 to 28, 1903, and amounted to 3,980 cubic feet per second. The equivalent at Ydalpom according to the above rating is about 2,490 second-feet.

The only other record of assistance in properly extending the minimum flow relation up river from Ydalpom consists of two measurements made at the gaging station at Henderson on May 9 and August 12, 1911. The relations between the discharge at Ydalpom and Henderson on those two days are as follows:

	Ydalpom (second-feet).	Henderson (second-feet).
May 9	6,740	5,350
August 12	3,220	3,110

The flow relations of Henderson to Ydalpom on the two days are .8 and .9, respectively. Inasmuch as the relation of August 12th represents a condition of drainage equilibrium on the basin, coming as it does in the midst of a long dry period when the flow of the river was gradually subsiding, it is undoubtedly preferable for use in determining the minimum flow relation. Under this assumption the indicated minimum flow at Henderson would be 2,240 second-feet.

The effective drainage area above Ydalpom is 1,661 square miles. That above Henderson, or the mouth of Kosk Creek is 762 square miles. The intervening drainage area, 899 square miles was therefore productive of only 250 second-feet, or .28 second-feet per square mile. It is evident that the area above Henderson is far more productive than that below.

The distribution of flow above Henderson is very difficult of determination from the scanty information available. It is known that the Fall River springs furnish the greater part of this flow and that the yield of Fall River is approximately 1,500 second-feet. The only actual measurement of record was one made on September 9, 1901, near the mouth of the stream, the flow being 1,450 second-feet. This date is fortunately near the close of the dry season when the flow was at or near its minimum. A measurement made on September 2d of the same year at the old gaging station on Sacramento River at Jelly's Ferry, a short distance above the present Iron Canyon station, gives a discharge of 4,390 second-feet, which is close to the minimum observed at the latter point. It is safe to assume then that the year 1901 was one of low water in that region, and the gaging above noted on Fall River reasonably indicates the minimum at that point.

By subtracting from the indicated minimum flow at Henderson 2,240 second-feet, the probable minimum of Fall River 1,450 second-feet, there will remain 790 second-feet which may safely be considered as derived from the 762 square miles lying above Henderson. This is equivalent to about 1 second-foot per square mile.

On the above basis of estimate the water powers on the Pit will be rated as follows: Start at the head of the effective area with 1,450 second-feet, the contribution made by Fall River; from there to Henderson increase the flow by a factor of one second-foot per square mile; from Henderson to Ydalpom increase by a factor of .28 second-foot per square mile. This schedule, while unsatisfactory in some respects, probably does not do violence to reasonable probability and cannot fail to be much safer than the usual estimates based on rainfall records and remote and incomplete flow measurements.

POWER SITES.

The following power estimates are based on the theoretical power of a given amount of water, falling over a given height, the result reduced to 70 per cent to allow for mechanical and hydraulic losses in conduits, water motors and tailrace. This will give a result that will conservatively represent available power on the wheel shaft.

Big Valley dam site to the mouth of Fall River—This stretch of river is about 31 miles long. It has already been explained that because of very low flow during August, September, and in some years, through October and November, the river as far down as the mouth of Fall River is without value for primary power unless storage reservoirs are constructed. It has further been indicated that with the Big Valley reservoir constructed, a minimum flow of 900 second-feet may be assured. While it is probable that the drainage area between the reservoir site and the mouth of Fall River yields some water during dry seasons, the amount is very small and for primary power studies may safely be neglected. This stretch of the Pit will therefore be rated on the basis of 900 second-feet available from the Big Valley reservoir.

The stretch of river here discussed is naturally divided into four portions, two of which are of great slope and the remaining two of which are practically flat. The first section begins about one half mile below the dam site, corresponding approximately to Mile 118 on the accompanying profile. From there to about Mile 108, the fall is about 760 feet, or 76 feet per mile (as found on Sheets 7 and 8 of profile). The available power along this section, based on the factors and assumptions above given, is 54,720 horsepower.

The second section extends from Mile 108 to about Mile 100.5. (Sheet No. 7 of profile.) Along this stretch the stream meanders through a wide valley and the total fall is 33 feet or 4.4 feet per mile. This section will not be considered for power purposes except as described in the next paragraph.

The third section extends from Mile 100.5 to about Mile 99.5. (See Sheet 7.) The fall over this single mile of river channel is 62 feet and the available power is 4,460. It should be noted that it would be possible to increase the head at this site by the erection of a dam just above the head of this section where the broad valley noted in the previous paragraph narrows somewhat. A dam 40 feet high would be about 2,900 feet long and would overflow the entire valley above and reduce by about 7 feet the available fall in the first section above described. The increase of power afforded at the third section would be above 2,880 horsepower. Such a development is not seriously proposed because of many obvious reasons and difficulties. The possibility is merely noted because in some future time changed conditions of power market may render it worthy of consideration.

The fourth section from Mile 99.5 to the mouth of Fall River is practically flat and has no power importance. (See Sheets 7 and 6.)

The available power from Big Valley dam site to the mouth of Fall River is, under the assumption above made, 59,200 horsepower.

From the mouth of Fall River (about Mile 90) to Mile 80. (Sheet No. 6 accompanying this report.) Along this section there is a fall of 488 feet. The effective flow for primary power purposes, is assumed, as explained in a previous paragraph, to be the low-water flow of Fall River. *i. e.*, 1,450 second-feet. The available primary power is therefore 56,600 horsepower. With an additional flow of 900 second-feet available from Big Valley storage the primary power would be 91,700 horsepower.

In the actual development of power along this section, the total head might be increased considerably by the construction of a dam at or near the upper limit. Between Mile 91 and Mile 89.2 there are a large number of possible dam sites. A dam raised to say 3,300 feet above sea level would be less than 75 feet high and would afford an additional head of 55 feet. The broad flat valley above would be submerged, and also the power privilege at Mile 100. Whether it would be of hydraulic advantage to combine the two sites in this way, and whether the cost of the same and the damages from flowage would outweigh such advantages, is a matter for minute local study. A shortening of the headwater conduit by tunnel across the bend which has its heel at Mile 88 would probably be feasible and economical whether the diversion were made at grade or at dam elevation.

Section from Mile 80 to the mouth of Burney Creek (Mile 70.7). (Sheet No. 5 of profile.) This section has a relatively low slope, the total fall being 69 feet or about 7.5 feet per mile. Therefore, it does not offer as good power privileges as some other parts of the river. If the demand for power were sufficiently great, it might be practicable to utilize the entire fall along this section by erecting a dam in the head of the canyon at about Mile 70, flooding the valley above and thereby increasing the available head in the section next below.

Section from Burney Creek (Mile 70.7) to Rock Creek (Mile 66). (Sheet No. 5 of profile.) The fall along this section is 134 feet or about 28.5 feet per mile. By reason of the tortuous channel of the river a tunnel conduit would shorten the distance from diversion to power house to about 2¼ miles. As the channel lies in a steep canyon along the entire stretch it is probable that a tunnel would be as cheaply constructed as an open or pipe conduit following the river's course.

The effective drainage area above the mouth of Burney Creek, including that of said creek, is 649 square miles. On the assumption previously made, *i. e.*, a minimum flow of 1 second-foot per square mile, and a minimum flow of 1,450 second-feet from Fall River, the available flow for primary power development in this section is 2,099. This amount developed over a head of 134 feet would produce 22,500 horsepower. With Big Valley storage available the primary power would be 32,100 horsepower.

Section from Rock Creek (Mile 66) to Mile 62.5. (Sheets Nos. 5 and 4 of profile maps.) Along this 3½ mile stretch the fall is 143 feet. The drainage area above and including Rock Creek is 700 square miles. This indicates a probable minimum flow of 2,150 second-feet, equivalent to 24,600 horsepower. With Big Valley storage available, this would be increased to 34,900 horsepower.

Section from Mile 62.5 to Mile 54.6. (Sheet No. 4 of profile map.) This section lies entirely in canyon like the one above and has a fall of 340 feet. The effective drainage area above the head of the section is 720.4 square miles. The minimum flow without storage is 2,170 second-feet and with Big Valley storage would be 3,070 second-feet. The horsepower equivalents are 59,000 and 83,500, respectively.

Section from Mile 54.6 to mouth of Kosk Creek (Mile 47.2). (Sheets Nos. 4 and 3 of profile maps.) The effective drainage area above the head of the section is 734.5 square miles, and the total fall is 470 feet. The minimum flow is therefore 2,184 second-feet, equivalent to 82,100 horsepower. With Big Valley storage the power would be 116,000 horsepower.

Section from Kosk Creek (Mile 47.2) to Mile 40. (Sheet No. 3 of profile map.) Near the head of this section is the Henderson gaging station, below which, as noted on a previous page, the run-off per square mile factor is changed to .28. This section is 7.2 miles long and has a fall of 245 feet. The drainage area above Kosk Creek is 786 square miles. This creek drains 63.7 square miles. The minimum flow at the head of the section is therefore about 2,254 second-feet, which, over a 245-foot fall, is equivalent to 44,200 horsepower. Big Valley storage would increase this to 61,800 horsepower.

Section from Mile 40 to mouth of Montgomery Creek (Mile 31.7). (Profile sheets Nos. 3 and 2.) The fall in this section is 230 feet or about 28 feet per mile. The drainage area above the head of the section is 891.7 square miles which will yield a minimum flow of 2,270 second-feet. The equivalent horsepower is 41,800 and with Big Valley storage, 58,300.

Section between Montgomery Creek (Mile 31.7) and Mile 27.4. (Profile sheet No. 2.) This section includes the 891.7 square miles above the previous section, the 90.1 square miles between Mile 40 and the mouth of Montgomery Creek and the 47.4 square miles constituting the basin of said creek—in all 1,029.2 square miles. This is an increase of 137.5 square miles, the minimum flow of which is 38.5 second-feet. This amount added to the 2,270 second-feet available in the section next above gives a total of about 2,300 second-feet. The fall in the section is 101 feet or 23.5 feet per mile. The available primary power is therefore 18,600 horsepower, which would be increased by Big Valley storage to 25,900 horsepower.

Section between Mile 27.4 and Mile 20.5. (Profile sheet No. 2.) The effective drainage area above the head of this section is 1,049.9

square miles, and the minimum flow is 2,310 cubic feet per second. The total fall in this section is 120 feet, and the indicated primary power is 22,200 horsepower, which would be increased by Big Valley storage to 30,800 horsepower.

Section between Mile 20.5 and Mile 9. (Profile sheets Nos. 2 and 1.) The drainage area above the head of this section is 30.8 square miles greater than that of the next previous section. Therefore the minimum flow is increased by about 9 cubic feet per second or a total of 2,320. The fall in the section is 165 feet or 14.3 feet per mile. This will afford a primary power of 30,600, or with Big Valley storage, 42,500 horsepower.

Section from Mile 9 to mouth of McCloud River (Mile 4.6). (Profile sheet No. 1.) The drainage area above this section is 145 square miles greater than that above the previous section. Therefore, the minimum flow is increased by about 41 second-feet or a total of 2,341 second-feet. The fall in this section is 55 feet, or 12.5 feet per mile. This will afford a primary power of 10,300, or with Big Valley storage 14,300 horsepower.

In the 4.6 miles between McCloud River and the mouth of the Pit the fall of the river is 40 feet or less than 10 feet per mile. While the total available power is relatively large, this section of the stream does not appear to be well adapted to power development and will therefore not be considered in this report.

A summary of the foregoing paragraphs appears in the following table. This table does not include all the power facilities of the Pit basin. Some of the tributaries, notably the McCloud and Fall rivers, are extremely efficient power streams which at some time in the future should be surveyed and presented in the manner followed in this report.

There are also several reservoir sites not described in this report, the development of which would add materially to the primary power available in the main stream.

Table showing possible power development on the Pit.

Limits of section.	Sheet number.	Distance between points.	Fall between points.	Fall per mile.	Drainage area.*	Minimum discharge.		Available power 70 per cent efficiency.	
						Without storage.	With storage in Big Valley.	Without storage.	With storage.
		Miles.	Feet.	Feet.	Sq. mi.	Sec.-ft.	Sec.-ft.	Sec.-ft.	Sec.-ft.
Big Valley dam site (Mile 118) to Mile 108	8 & 7	10	760	76	----------	----------	900	----------	54,700
Mile 100.5 to Mile 99.5	7	1	62	62	----------	----------	900	----------	4,460
Mouth of Fall River (Mile 90) to Mile 80	6	10	488	48.8	----------	1,450	2,350	56,600	91,700
Burney Creek (Mile 70.7) to Rock Creek (Mile 66)	5	4.7	134	28.5	649	2,100	3,000	22,500	32,100
Rock Creek (Mile 66) to Mile 62.5	5 & 4	3.5	143	40.9	700	2,150	3,050	24,600	34,900
Mile 62.5 to Mile 54.6	4	7.9	340	43.+	720.4	2,170	3,070	59,000	83,500
Mile 54.6 to mouth Kosk Creek (Mile 47.2)	4 & 3	7.4	470	63.5	734.5	2,184	3,084	82,100	116,000
Kosk Creek (Mile 47.2) to Mile 40	3	7.2	245	34.+	819.7	2,254	3,154	44,200	61,800
Mile 40 to mouth Montgomery Creek (Mile 31.7)	3 & 2	8.3	230	28	891.7	2,270	3,170	41,800	58,300
Montgomery Creek (Mile 31.7) to Mile 27.4	2	4.3	101	23.5	1,029.2	2,300	3,200	18,600	25,900
Mile 27.4 to Mile 20.5	2 & 1	6.9	120	17.4	1,049.9	2,310	3,210	22,200	30,800
Mile 20.5 to Mile 9	2 & 1	11.5	165	14.3	1,080.7	2,320	3,220	30,600	42,500
Mile 9 to mouth McCloud River (Mile 4.6)	1	4.4	55	12.5	1,225.7	2,341	3,241	10,300	14,300
Total storage	----------	----------	----------	----------	----------	----------	----------	412,500	650,960

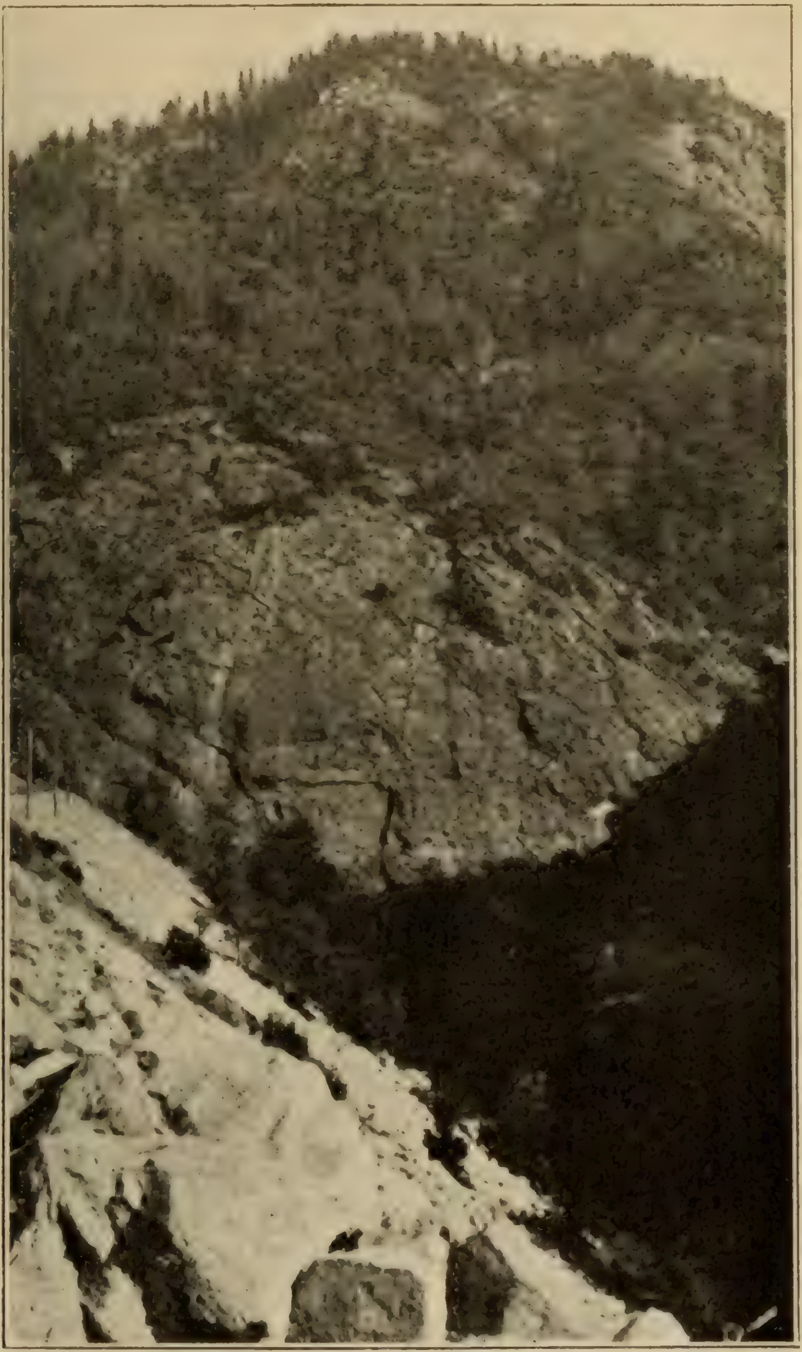
*Figures given are effective area without storage, i. e., below boundaries of Fall River basin.

FEATHER RIVER.

The plans and profiles made in this basin for the present report are confined to the Middle Fork of Feather River. A final report on the water-power possibilities must be postponed until sufficient records of stream flow can be accumulated. We have arranged to install automatic gages at favorable points along the streams. At present, the only available data are those secured at three stations. The first is on the Middle Fork near Cromberg, in the north ½, section 24, township 23 north, range 11 east. It has been maintained since November 3, 1910, as the result of coöperation between the Geological Service and the U. S. Forest Service. The gage is read occasionally when a Forest Service official finds it possible to make a visit. Only two current-meter measurements have been made, one November 3, 1910, when the discharge was 54 second-feet, and another on October 28th, discharge, 89 second-feet. The data are not sufficient for any reasonable safe approximations of flow. The second station in the Middle Fork basin was located on Grizzly Creek near Beckwith, Cal. It was established December 17, 1905, and discontinued on September 30, 1906, because it was impossible to secure an observer. During this short period a maximum flow of 681 second-feet and a minimum flow of .2 second-feet were observed. These records are not sufficient for the determination of Grizzly Creek discharge, and are quite inadequate to show the discharge of the Middle Fork in the higher portions of the basin. The third station is located at Bidwell Bar near the mouth of Middle Fork, and has been maintained since October 7, 1911. Here, too, the period of observation is too short to permit of reliable estimates.

The Middle Fork, Feather River.

Although fairly satisfactory data have been secured on the North Fork, the figures cannot be applied to the Middle Fork because of the fact that the two basins differ geologically. By reason of the fact that the basin of the North Fork is so largely overlaid with lava, which results in a comparatively steady run-off, and the occurrence of large springs, the run-off characteristics must be markedly different from those of the Middle Fork of Feather River, which is largely a granitic area. It is known in a general way that the yield of the Middle Fork is considerably less than that of the North Fork. Neither is it possible to apply the run-off data of Yuba River which lies south of the basin of the Middle Fork. The only record in the Yuba basin extending over



A view of Grizzly Creek near headwaters of Middle Fork, Feather River.

a period of years sufficient to permit of reliable estimates is that at Smartsville in the foothills. The stations in the upper portions of the Yuba have not been maintained for a period sufficiently long to permit of any estimates. With the Yuba basin data as a guide, an approximate estimate of the flow of Middle Fork might be derived, but the degree of accuracy would be problematical and the variation of the estimates from the truth might be as much as 500 per cent. Therefore, it is believed wise to defer any water-power estimates for this stream until flow records have been secured.

A view of the Feather River just below Oroville.

In lieu of the report on the power possibilities of the Middle Fork the following statements are submitted concerning the developed and undeveloped power on the North Fork of Feather River. The statements are taken from a report written by E. C. Murphy, hydraulic engineer, U. S. Geological Survey.

The basin of Feather River above Oroville, Cal., is 3,640 square miles in extent. The country is mountainous throughout, with deep narrow canyons interspersed here and there by meadows. It is heavily covered with commercial timber in the higher parts and with a thin growth of scrubby timber in the lower portion.

The main stream is formed 27 miles above Oroville where the Middle and North forks join. The former has a drainage area of 1,340, and the latter, 2,220 square miles. The unit run-off of the former is considerably less than that of the latter.

North Fork basin is naturally divided into several smaller ones, two of these known as the Eastern and Western basins, lying above Prattville. The Eastern basin has an area of 230 square miles and is drained by the Hamilton Branch, while the Western, having a drainage area of 245 square miles, is drained by the North Fork. These two streams join about 3 miles below Prattville at the lower end of Big Meadows.

North Fork of Feather River above Yellow Creek and Belden Station on the Western Pacific Railway.

About 7 miles below Prattville, Butt Creek joins the North Fork from the west. This stream drains an area of 74 square miles. Eight miles below Butt Creek, the East Branch, the basin of which is 1,020 square miles in extent, joins from the east. Two miles farther down, Yellow Creek enters the North Fork, while West Branch joins near Las Plumas about 9 miles above the mouth of Middle Fork.

In the southern part of the Feather River basin, the formation is mainly of granite with a good covering of soil; in the northern part the formation is mainly porous lava with a covering of soil which rapidly absorbs water. The result is that ground storage in the North Fork basin is abundant and several of the tributary streams are formed by large springs, one of which has a minimum flow of 70 second-feet.

Flow records of Feather River have been maintained at Oroville during the period 1902 to 1911. The records of daily stage and discharge appear in Water-Supply Paper 298. The year 1908 is the lowest of record in the series, and the discharge for this year will be given farther on.

A station was located by the Great Western Power Company near the head of Big Bend tunnel, about 20 miles above Oroville, and the records are available for five and one half years. The mean monthly and annual results are given in the following table:

Monthly discharge of North Fork Feather River at Big Bend, California.
(In hundred second-feet.)

Drainage area------------------------------------1,940 square miles.

Month.	1906.	1907.	1908.	1909.	1910.	1911.	Mean.	Per cent annual.
January	64.9	35.1	37.7	--------	29.9	28.6	39.6	7.3
February	51.5	129.0	29.9	--------	35.6	37.1	56.6	10.6
March	96.8	183.0	45.9	--------	90.0	59.1	94.6	17.6
April	99.1	138.0	56.6	--------	70.0	154.9	105.7	19.7
May	94.3	93.3	51.3	--------	40.0	127.2	81.2	15.1
June	75.7	62.5	37.0	--------	15.8	86.9	55.6	10.4
July	29.2	27.0	15.9	18.2	11.6	21.8	20.6	3.9
August	15.4	17.2	10.1	12.9	9.7	17.4	13.8	2.5
September	13.1	14.7	9.9	12.0	10.0	12.9	12.1	2.3
October	12.4	15.2	11.9	14.8	10.1	11.9	12.7	2.4
November	16.1	15.8	13.1	32.3	12.8	12.6	17.1	3.2
December	40.7	29.8	13.0	36.2	22.4	10.6	27.1	5.0
Mean	50.8	63.4	27.7	--------	29.8	48.4	44.8	--------

Although the mean annual flow was lower in 1908 than in any other year, the discharge being 2,770 second-feet, the lowest mean monthly flow was in August, 1910, when the mean discharge dropped to 970 second-feet. On the 15th of this month, the flow was less than 800 second-feet.

A third station, also maintained by the Great Western Power Company, is located at the dam site of the Big Meadows reservoir below the mouth of Hamilton Branch. The average monthly flow at this station for the five and one half years of record is given in the following table:

Monthly discharge North Fork Feather River below Prattville, California.

Drainage area------------------------------------506 square miles.

Month.	1905.	1906.	1907.	1908.	1909.	1910.	Mean.	Per cent annual.
January	--------	937	814	917	2,550	844	1,212	8.0
February	--------	1,210	2,300	809	1,310	908	1,317	8.7
March	--------	1,590	2,800	1,140	1,380	2,160	1,814	11.9
April	--------	2,210	3,290	1,500	2,120	1,780	2,180	14.4
May	--------	2,770	3,230	1,500	2,580	1,250	2,266	14.9
June	--------	2,190	2,650	1,110	1,950	768	1,734	11.4
July	761	1,200	1,280	723	1,010	662	939	6.2
August	670	795	951	635	800	602	742	4.9
September	644	688	826	610	734	623	688	4.6
October	631	769	794	632	731	625	682	4.5
November	628	698	758	647	1,200	697	771	5.0
December	607	894	939	612	1,010	908	828	5.5
Mean	--------	1,320	1,720	903	1,450	987	1,264	--------

The minimum monthly flow of the North Fork at the station above mentioned occurred in August, 1910, when the average discharge was 602 second-feet, equivalent to a total monthly run-off of 37,000 acre-feet. The mean rate of flow for the entire period was 1,264 second-feet, equivalent to an annual run-off of 915,100 acre-feet. The year of least flow is 1908 when the total run-off was 653,800 acre-feet.

A fourth station also maintained by the Great Western Power Company is located on Butt Creek in Butte Valley about 2 miles above the mouth. The monthly record for the five and one half years of observation period is given in the following table:

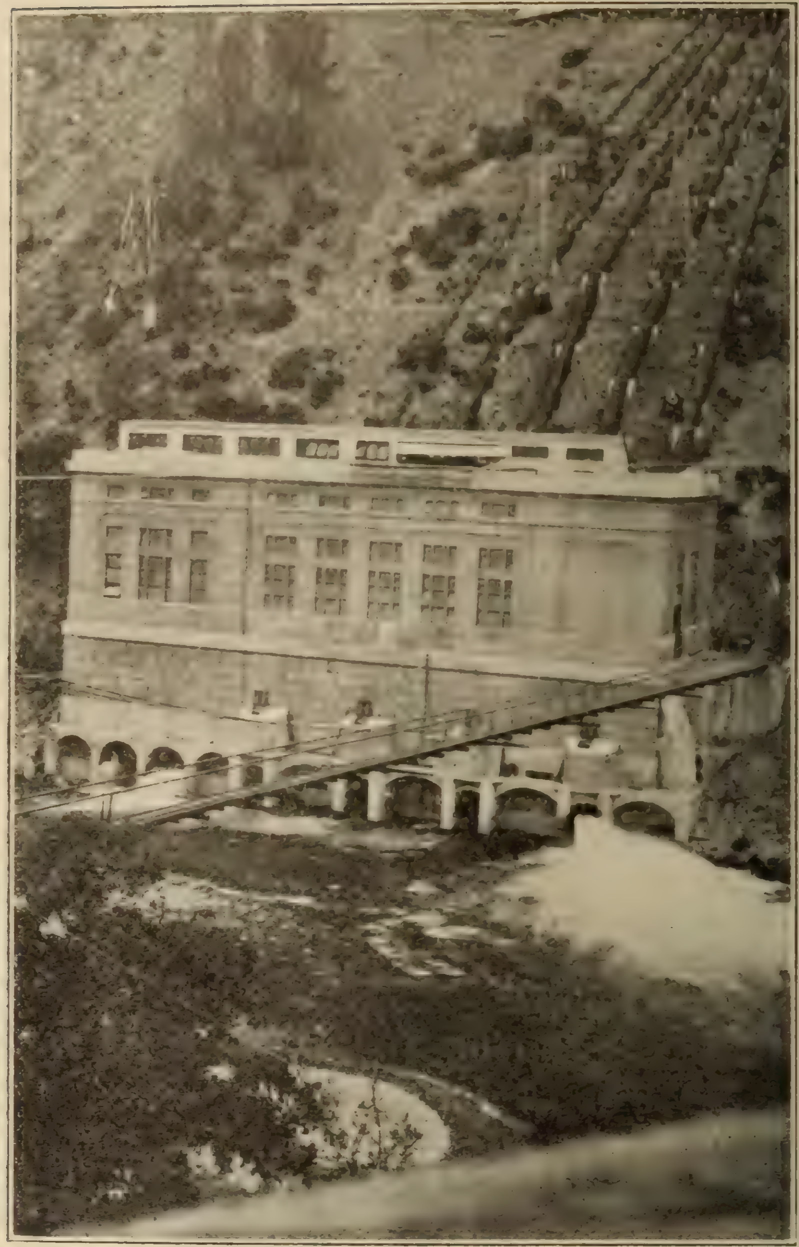
Monthly discharge of Butt Creek, Butte Valley, California.

Drainage area------------------------------------73 square miles.

Month.	1905.	1906.	1907.	1908.	1909.	1910.	Mean.	Per cent annual.
January	--------	221	95	77	460	66	184	12.5
February	--------	141	312	63	178	73	153	10.5
March	--------	287	367	113	159	221	229	15.6
April	--------	360	500	173	280	165	296	20.1
May	--------	320	343	132	233	65	219	14.9
June	--------	220	186	65	104	31	121	8.2
July	47	69	67	30	41	26	47	3.3
August	34	46	44	25	33	26	35	2.4
September	32	45	40	27	32	26	33	2.2
October	32	43	38	27	42	26	35	2.4
November	33	49	42	28	84	35	45	3.1
December	59	90	98	30	91	53	70	4.8
Mean	--------	158	178	66	145	68	122	--------

The average run-off per square mile of Butt Creek is about 24 per cent less than that of North Fork, and the minimum is 50 per cent less. The mean annual flow is 122 second-feet, equivalent to 88,300 acre-feet. In the lowest year of record, 1908, the total discharge was 47,800 acre-feet.

The flow of Yellow Creek has not been measured. It has been assumed that its annual run-off per square mile is about the same as that from



The Great Western Power Company's Plant, at Big Bend, on the Feather River.

Butt Creek, or 1.76 second-feet. As the basin has an area of about 80 square miles, the mean rate of flow would be, on this assumption, 133.6 second-feet, equivalent to 96,700 acre-feet.

Indian Creek has been measured for four years at a point near Crescent Mills, about 5 miles above the mouth of Spanish Creek. The results appear in the following table:

Monthly discharge Indian Creek (East Branch) near Crescent Mills, California.

Drainage area------------------------------------740 square miles.[1]

Month.	1906.	1907.	1908.	1909.	Mean.	Per cent annual.
January	870	500	480	2,910	1,190	11.0
February	820	2,210	360	1,380	1,192	11.0
March	2,000	2,930	990	1,200	1,780	16.5
April	2,550	3,860	1,030	2,540	2,495	23.0
May	1,790	2,110	660	2,020	1,645	15.2
June	1,010	1,000	310	960	1,570	14.5
July	230	240	70	240	195	1.8
August	53	91	15	35	49	.4
September	58	89	23	37	52	.5
October	95	114	59	101	92	.9
November	132	139	94	356	180	1.7
December	534	384	124	484	381	3.5
Mean	850	1,140	350	1,020	902	

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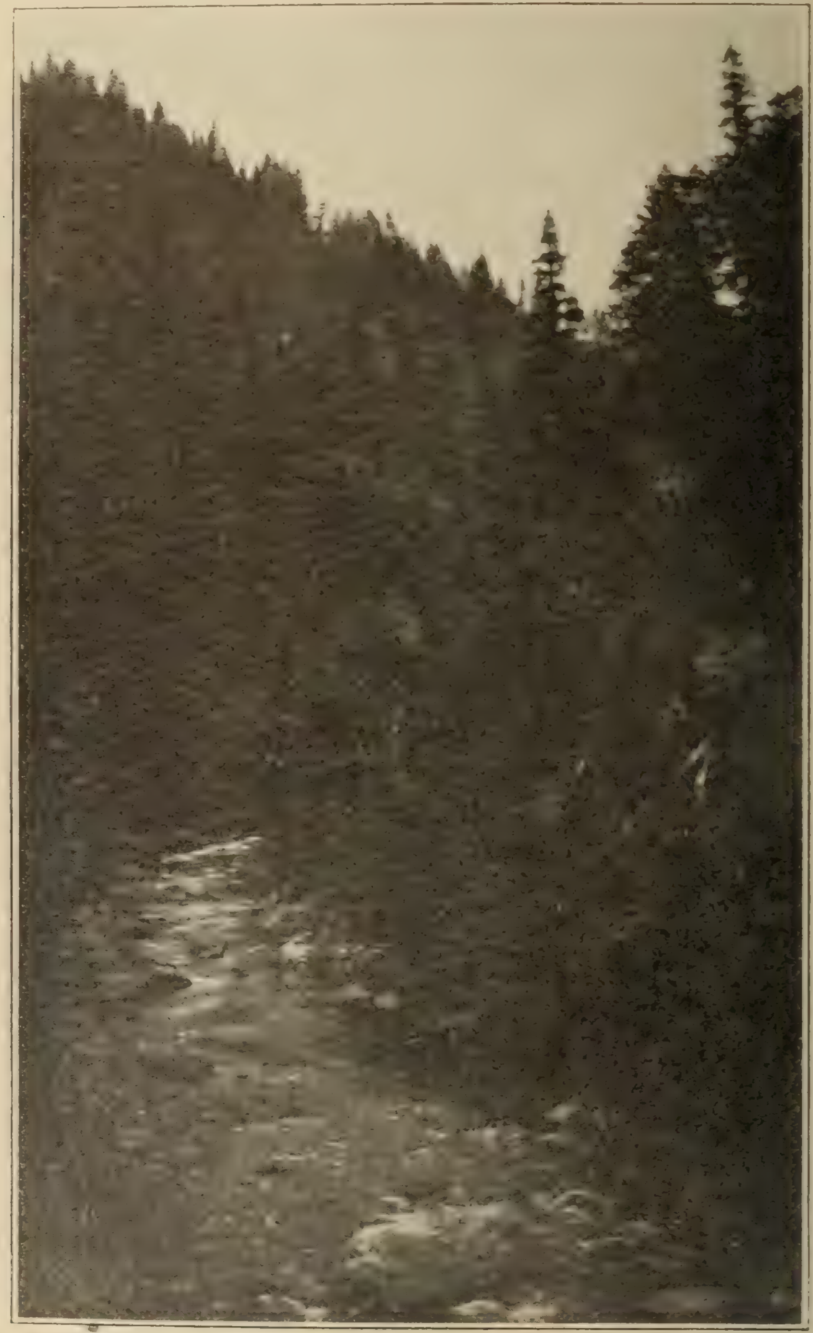
[1] Total area drained by this stream, 1,025 square miles.

The run-off per square mile of Indian Creek is only about one half as large as that of North Fork at Prattville. Its maximum monthly rate is, however, nearly twice as large while the minimum is less than one tenth of that of North Fork. The record shows that the minimum monthly flow was 15 second-feet which occurred in August, 1908, which is equivalent to a total run-off for this month of 938 acre-feet. The mean annual run-off was 653,000 acre-feet and the minimum 253,400.

No flow measurements are available on Spanish Creek. The drainage area is about 175 square miles and has a lower elevation than that of Indian Creek, and therefore its run-off is somewhat less. If the mean rate be assumed to be 80 per cent of that of Indian Creek, the mean annual flow must be about 171 second-feet, equivalent to 123,800 acre-feet. A gaging made on August 14, 1912, showed the flow of this stream to be 28 second-feet. In the following discussion the minimum monthly flow of East Branch from the mouth of Spanish Creek to the North Fork has been taken as the sum of the rates of the flow of Indian Creek at Crescent Mills and Spanish Creek at Keddie, and is equivalent to 35 second-feet.

Flow records in Feather River basin cover relatively short periods of time. It is, therefore, probable that the minimum flow may have occurred before measurements began. If this is true the correct mean flow in the basin is less than that indicated by the existing records. It will therefore be of advantage to examine the measurements of precipitation in the basin, which cover a much longer period than those of stream flow. Such an examination may make it possible to estimate in a relative way what was the probable minimum flow during the period not covered by the flow records. Four places have been selected in the Feather River basin where precipitation has been observed, namely, Oroville, Quincy, Greenville, and La Porte.



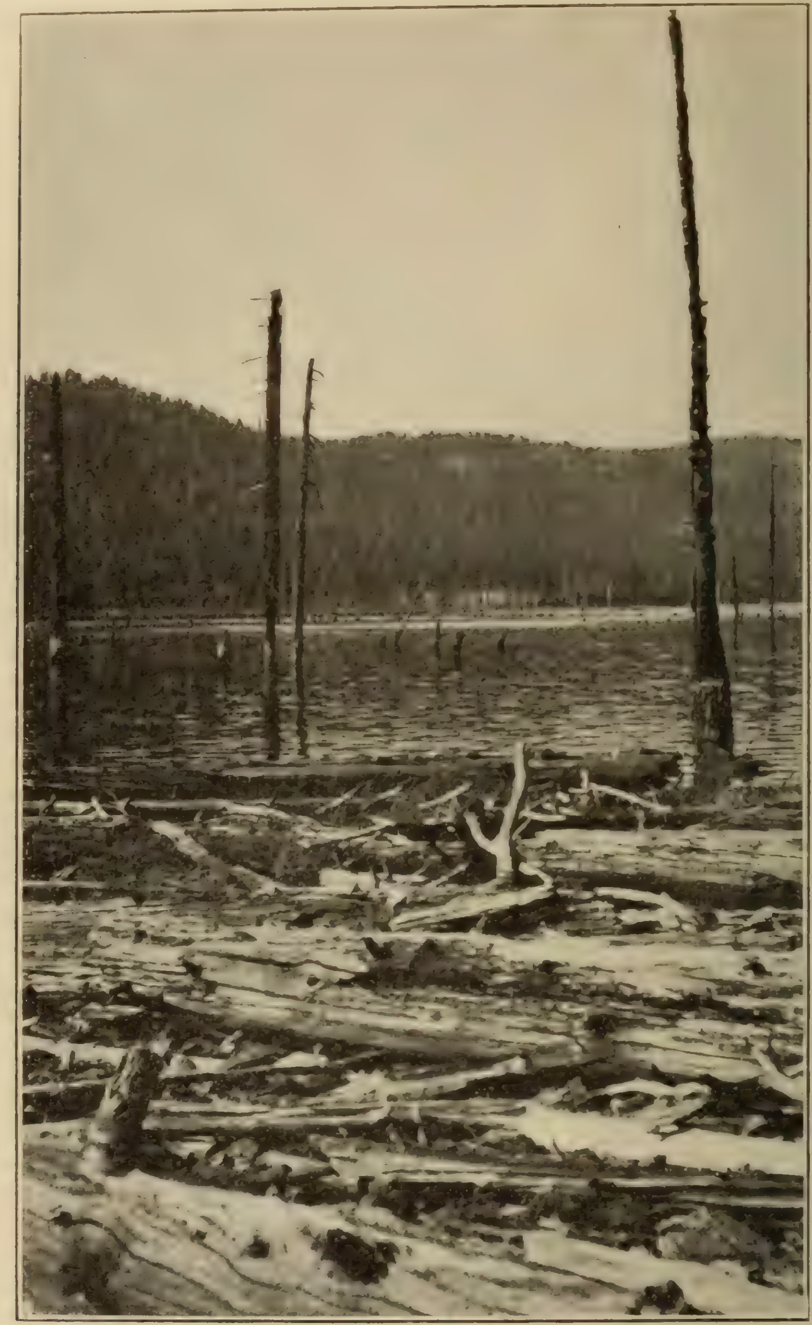
Mouth of Yellow Creek, showing flow to be developed by Oro Light and Power Company.

The following table gives the elevation, length of record, annual and average precipitation for the period of record, the mean for the period 1906–1911, the mean for 1906–1909, and the record for 1898 at these four places. The data are obtained from the records of the United States Weather Bureau.

Precipitation in Feather River Basin.

	Elevation.	Length of record.	Precipitation normal.	Precipitation.						Mean precipitation.		
				1906.	1907.	1908	1909.	1910.	1911.	1906-1911.	1906-1909.	1898.
Oroville	250	25	28.41	42.37	31.33	18.83	41.48	12.22	29.14	29.23	33.50	13.78
Quincy	3,400	14	48.41	66.92	67.10	32.37	68.87	23.65	46.95	50.99	58.84	24.28
Greenville	3,600	15	44.04	66.45	60.73	25.77	63.50	28.59	54.53	49.93	54.11	21.08
La Porte	5,000	13	89.17	124.46	113.94	58.08	141.40	60.22	----------	99.62	109.47	40.37

The foregoing record shows that in the year 1898 the precipitation at each of the points of observation was from 18 to 30 per cent less than in the year 1908, which, as will be remembered, was the minimum year of flow during the period of flow observations. The year 1897 was also dry, being from 14 to 33 per cent less than the normal. The mean precipitation for the period 1906 to 1911 is from 3 to 12 per cent greater than the normal. It is, therefore, apparent that the mean annual run-off indicated by the 1908 flow observations at Big Bend is greater than the actual mean run-off. The difference is probably about 15 per cent. The mean precipitation for the period 1906-1909 is from



The Round Valley Reservoir, near Greenville, Plumas County.

18 to 23 per cent greater than normal. The mean annual run-off obtained at the gaging station on Indian Creek near Crescent Mills is therefore greater than the normal by at least 20 per cent.

During the period of stream measurement the precipitation has been below the normal only two years in succession at any of the points of observation. Prior to the stream measurement period the precipitation at all of the four points mentioned was below the normal for four consecutive years and at Greenville it was below the normal for seven consecutive years. It therefore appears that the minimum shown by the flow records is neither as long nor as intense as would have been indicated in previous years.

Storage possibilities—There are four large reservoir sites in North Fork basin, namely, Big Meadows, Indian Valley, Butt Creek, and Yellow Creek. The dam of the Big Meadows site is about 1 mile below the junction of Hamilton Branch and North Fork. It is being built at the present time and will be completed in 1913. This reservoir will have a capacity of 1,080,000 acre-feet. The average annual run-off for the five and one half years has been shown to be 915,100 acre-feet.

The dam site of Indian Valley is in the canyon below Crescent Mills. This reservoir has a capacity of 688,000 acre-feet. The average annual run-off near this site for the four years 1906 to 1909 was 653,000 acre-feet.

The dam site of the Butt Creek reservoir is about 2 miles above the mouth of Butt Creek. This reservoir will have a capacity of 106,000 acre-feet. It has been shown that the mean annual run-off at this site for five and one half years is 88,300 acre-feet. This site and the Big Meadows reservoir site are owned by the Great Western Power Company.

The dam site of the proposed Yellow Creek reservoir is about 8 miles above the mouth at the lower end of Humbug Valley. A dam 100 feet in height at this place will give a storage capacity of 96,400 acre-feet. This reservoir will be built by the Oro Electric Corporation.

Estimated flow with storage reservoirs installed—A study will now be made of the effect of storage in the above-named reservoirs on the flow of streams during the year 1908. The previous year, 1907, was one of large flow. At the four precipitation stations previously mentioned, the rate of precipitation was from 11 to 30 per cent greater than the normal. It will therefore be assumed that the volume of water in each of the reservoirs at the beginning of 1908 was 50 per cent of the mean annual flow of the year 1907. For convenience the monthly flow for the year 1908 at each of the five gaging stations is given in the following table:

Monthly discharge of streams in Feather River basin, 1908.

Month.	3640 sq. mi. Feather at Oroville.	1940 sq. mi. North Fork Feather at Big Bend.	506 sq. mi. North Fork Feather at Prattville.	73 sq. mi. Butt Creek at Butte Valley.	Indian Creek at Crescent Mills.
January	6,610	3,770	814	77	478
February	6,380	2,990	2,300	63	363
March	7,250	4,590	2,800	113	989
April	9,210	5,660	3,290	173	1,030
May	8,170	5,130	3,230	132	661
June	5,310	3,700	2,650	64	306
July	2,320	1,590	1,280	30	72
August	1,510	1,010	951	25	15
September	1,250	987	826	27	23
October	1,650	1,190	794	27	59
November	1,750	1,310	758	28	94
December	1,910	1,300	939	30	124
Year.					
Second-feet	4,400	2,700	1,720	66	351
Acre-feet	3,215,000	2,005,000	1,245,000	47,800	254,100
Drainage	3,640	1,940	506	73	740

On the foregoing assumptions the stored water in the reservoirs at the beginning of 1908 would have been as follows:

Big Meadows reservoir, 457,600 acre-feet, equivalent to a continuous flow of 632 second-feet.

Butt Creek, 44,900 acre-feet, equivalent to a continuous flow of 62 second-feet.

Yellow Creek reservoir, 95,200 acre-feet, equivalent to continuous flow of 66.8 second-feet.

Indian Creek reservoir, 326,500 acre-feet, equivalent to a continuous flow of 451 second-feet.

It has been estimated that all the water in storage at the beginning of 1908, less losses assumed to be 10 per cent, could have been used during that year without a shortage during the next year. It happens that the year 1909 was one of more copious precipitation than that of 1907. With all this storage available at the beginning of 1908 plus the natural flow during the year, the minimum monthly flow below each reservoir would have been as follows:

Big Meadows reservoir, 1,472 second-feet instead of 610 second-feet.
Butt Creek reservoir, 122 second-feet, instead of 25 second-feet.
Indian Creek reservoir, 756 second-feet, instead of 15 second-feet.

The minimum monthly flow of East Branch with storage may be taken to be 775 second-feet, without storage it is about 30 second-feet. The minimum monthly flow of North Fork from East Branch to Yellow Creek may be taken to be 2,370 second-feet with storage and 665 without storage. Below the mouth of Yellow Creek the minimum flow with storage would be about 2,500 second-feet, without storage 700 second-feet.

At Big Bend the minimum flow with storage would have been about 2,800 second-feet; without storage it was 990 second-feet.

It should be remembered that these figures, though applicable to the year of lowest stream flow of record, are based on the assumption that 50 per cent of the mean annual flow at the reservoirs was in storage at the beginning of 1908, and also that dry periods of longer duration and greater intensity than that of record have occurred.

Stream slope—The elevation of places along North Fork given in the following table were obtained from the topographic sheets and are only approximations. The distance between places are scaled from maps. The power houses and dams mentioned in this table belong to the Great Western Power Company and are described later. Project No. 1 is completed, and preliminary work has been commenced on Nos. 2 and 3. The location of power houses Nos. 2 and 3 and dams Nos. 2 and 3, and also the height of these dams, are subject to change:

Slope of Feather River, North Fork, East Branch, and Spanish Creek.

Locality.	Distance between places. Miles.	Low water elevation.	Fall in feet.
Oroville	0	150	----------
1.5 miles below Middle Fork	6	200	50
Power House Project No. 1	11	535	335
Dam Project No. 1	12	905	370
Power House Project No. 2	2	960	55
Dam Project No. 2	4.5	1,250	290
Power House Project No. 3	4.8	1,470	220
Dam Project No. 3	11.7	2,000	530
East Branch	5.0	2,260	260
Totals	57	----------	2,110
Mouth Spanish Creek	*16.5	2,900	640
Railroad Bridge near Keddie	*2.5	3,045	145

*Distance by railroad.

In the 57 miles from the mouth of the East Branch to Oroville there is a total fall of 2,110 feet, equivalent to an average of 37 feet per mile. In the 40 miles from the East Branch to the power house of Project No. 1, there is a fall of 1,725 feet, or an average of 43.1 feet per mile. The average fall of East Branch from the mouth of Spanish Creek to North Fork is 40 feet per mile.

Available power—From the data on stream slope and minimum flow, the available power with and without storage can readily be computed. The minimum flow used is the average monthly flow in August, 1910, and the horsepower is computed from the equation—Power equals Fall in feet multiplied by Discharge in second-feet, divided by 11.

Minimum Power Available Monthly.

Locality.	Distance between places. Miles.	Total fall. Feet.	Without storage.		With storage.	
			Flow sec.-ft.	Power horsepower.	Flow sec.-ft.	Power horsepower.
From—To—						
Oroville to Middle Fork	7.5	110	1,170	11,700	3,000	30,000
Middle Fork to Power House Project No. 1	9.5	275	970	24,250	2,800	70,000
Power House Project No. 1 to Yellow Creek	38.8	1,675	†835	127,100	2,650	403,500
Yellow Creek to East Branch	1.2	50	665	3,020	2,370	10,770
East Branch to Spanish Creek	*16.5	640	30	1,750	775	45,100
Spanish Creek to Keddie	2.5	145	15	2,180		2,180
Totals	76.0	2,895		170,000		561,550

*Distance by railroad.
†Average of flow at ends of part of stream considered.

From the foregoing it is seen that the portion of the river under consideration affords 170,000 gross horsepower without storage and 561,550 gross horsepower with storage.

North Fork Feather River, immediately above the dam site of the Great Western Power Company.

Feather River Project No. 1 at Big Bend belongs to the Great Western Power Company. It was begun in the fall of 1906 and the first power unit was placed in operation in December, 1908. A tunnel 3 miles in length across the river bend and a timber dam gave an initial head of 420 feet. In 1910, a concrete dam was built a short distance below the original timber dam which increased the head to 442 feet. A detailed description of this power plant is published in the *Journal of Electricity, Power and Gas*, volume 24, page 315. The power house of this plant is now being enlarged by the addition of two 18,000 horsepower Francis turbines, and the head available at the plant is being increased 10 feet by the placing of flash boards on the dam.

The dam of the Big Meadows reservoir now under construction is expected to be completed in 1913. That on Butt Creek is also being constructed. Investigations are being made in the Yellow Creek basin for the construction of that reservoir by the Oro Electric Corporation.

Applications for permits for water-power sites have been made to the Forest Service for four additional power projects on North Fork of Feather River. The location of these projects, together with that of the Big Bend, the Butt Creek, and the Yellow Creek projects, are shown on appended map.

The facts concerning the Great Western Power Company's Project No. 1 or the Big Bend project have been given. Project No. 2 has its head works located in section 6, township 22 north, range 5 east. The diversion dam is projected to 34 feet above low water and the headwater is to be conducted by tunnel down the right bank of the river to a point in the northern part of section 25, township 22 north, range 4 east. The static head on the wheels of this project will be 330 feet. Project No. 3 of the Great Western Power Company is located on the right bank of the North Fork in townships 24 north, range 6 east, and 23 north, range 5 east. The head works are located in sections 10 and 11 of the township first named. The dam will be raised 32 feet above low water to create a pondage area of 76 acres. The water will be conducted principally by tunnel conduit to a point in section 15 of the township last above named and the static head on the power house is 530 feet.

Some of the San Joaquin River watershed, showing rough country.

It appears from the foregoing that the heads on the power house of projects Nos. 1, 2, and 3 will be 1,333 feet under the assumption that the height of the dam of Project No. 1 will be increased 40 feet and that the friction loss of head in that project will be 13 feet. It has been indicated that the fall from the mouth of East Branch to Oroville is 2,110 feet and that from East Branch to the power house of Project No. 1 is 1,725 feet. Thus only 433 feet of the fall from East branch to Oroville, or 20 per cent, is utilized, and in projects Nos. 2 and 3, 860 feet additional, or 41 per cent, are to be utilized. Of the 1,725 feet fall from East Branch to the power house No. 1, 25 per cent is utilized in project No. 1, and about 50 per cent additional will be used in projects Nos. 2 and 3. Thus about 25 per cent of the fall in the 40 miles from the East Branch to power house No. 1 is neither utilized nor applied for.

The Hetch Hetchy Valley, San Francisco's proposed storage reservoir.

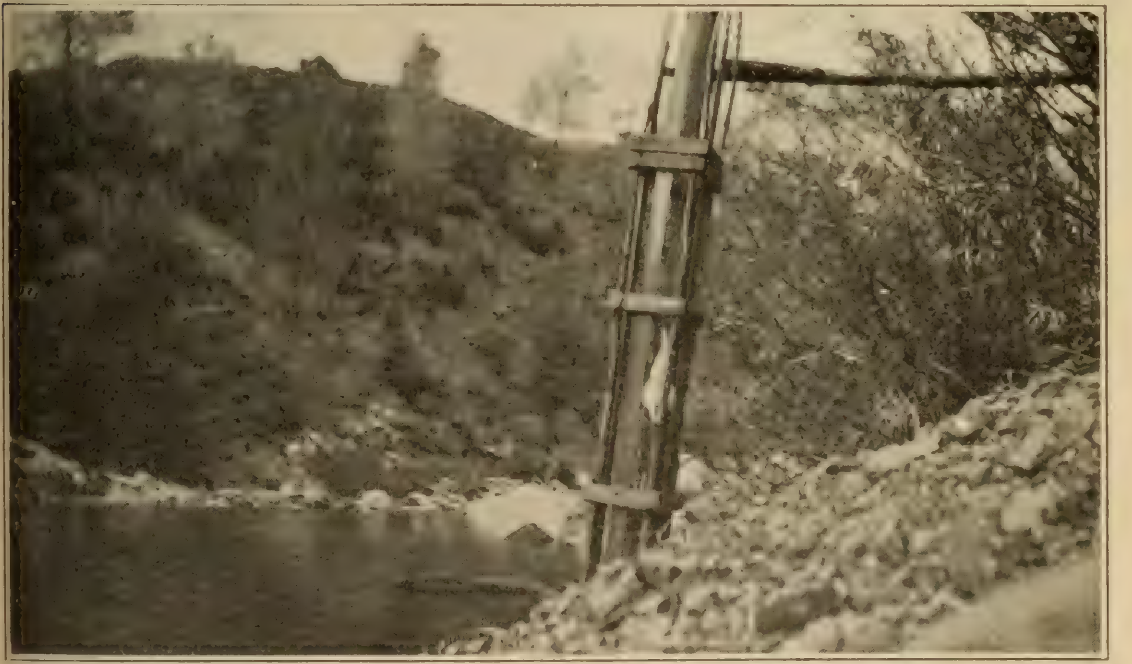
It is the apparent intention of the Great Western Power Company to use every foot possible of the fall in the river between Big Meadows reservoir and the power house of Project No. 1.

Projects Nos. 4 and 5 are located on North Fork above East Branch, It is the intention to use the water in these reservoirs only when the and can be operated only when water is furnished from these reservoirs. flow of the East Branch and other uncontrolled streams will not furnish all the water needed for projects Nos. 1, 2, and 3. Thus it may occur that projects Nos. 4 and 5 will be operated only a few months of each year. Project No. 4 is located on the left bank of the North Fork with head works just below the junction of Butt Creek and the North Fork. The water will be conducted by tunnel to a power house located at the junction of East Branch with North Fork. Project No. 5 consists of a tunnel conduit along the right bank of North Fork leading from the Big Meadows reservoir dam to a point just above the head works of Project No. 4.

The project of the Oro Electric Corporation on Yellow Creek consists of a conduit leading from the proposed reservoir on that creek to a point on North Fork just above the mouth of Yellow Creek.

AMERICAN AND TUOLUMNE RIVER BASINS.

With this report are presented plans and profile surveys of the North, Middle, and South forks of American River and of Tuolumne River. Because of the lack of adequate stream-flow data, no report on power resources can be presented. The gaging stations now being maintained in these basins will, however, within a few years afford all the data necessary.



Float and guide for automatic steam gauge on Tuolumne River, just below South Fork junction. A scale gauge here read once a week for Yosemite Power Co.

SAN JOAQUIN RIVER.

This Commission, at the request of the State Engineer, has entered into a coöperative agreement with the United States Geological Survey for the purpose of making profile measurements and securing such other data as the appropriation will make available, of the San Joaquin River. This work is now being pushed rapidly to completion and will be completed by January 1st. As soon as maps and data are available a supplemental report will be made containing this information.

A leak in the Baldwin Creek syphon of the North California Power Company.

The maps of the profile surveys of the streams referred to accompany this report and are as follows:

Pit River, sheets 1 to 8.
Storage mass curve, Pit River at Big Valley reservoir site, sheet 9.
American River, North Fork, sheets 10 to 22.
Feather River, Middle Fork, sheets 23 to 26.
Tuolumne River, sheets 27 to 32.

STORAGE RESERVOIR SITES IN SACRAMENTO BASIN.

The United States Geological Survey has furnished us with statements of the principal facts relative to storage reservoir sites both available and utilized in the Sacramento basin. These data have been collected in past years principally by the United States Geological Survey and the Reclamation Service. More extended discussions of the storage possibilities on Cache Creek and Stony Brook appear in Water-Supply Papers Nos. 45 and 86, respectively.

PUTAH CREEK.

Putah Creek is the most southerly of the Coast Range streams draining into the Sacramento Valley. This valley was explored by Hubert E. Green, engineer, in July, 1903, for possible reservoir sites. Three sites were discovered.

Guenoc Reservoir—The Guenoc site was the most promising of these, and was surveyed in July and August, 1903. This site is situated in Lake County, in township 11 north, ranges 6 and 7 west, Mt. Diablo Base and Meridian. Guenoc Valley, also known as Coyote Valley, lies in a basin near the headwaters of Putah Creek about 40 miles above the foothills of the southwestern part of the Sacramento Valley. The drainage area above the Guenoc site is about 148 square miles. This watershed is located in the Coast Range, and has several high peaks in the neighborhood, such as Mount St. Helena, Pine, Geyser, Childers, and Round Valley peaks. The elevation of Mount St. Helena is 4,743 feet.

Estimates of cost for the development of this reservoir were made in 1900 by the U. S. Reclamation Service based upon a 100-foot dam with spillway at 90-foot elevation. Such a dam would impound about 145,000 acre-feet. If the dam were raised 10 feet higher, the storage would be increased 45,000 acre-feet. Such a reservoir could be usefully operated to regulate the flood discharge in the Yolo basin.

The dam site is located at the end of a very flat valley of some 3,000 acres. The stream at this point makes a sharp bend and flows for some distance a little west of north, so that the axis of the proposed dam lies in direction north, 70 degrees east. The channel is filled with large boulders and the sides of the canyon have a slope of about 1½ to 1. They are covered with small pines, mountain oaks, together with more or less scrub vegetation. Superficial examination indicates a depth to solid rock of from 4 to 5 feet on the side walls. To rock at the bottom of the stream is estimated to be about 20 feet below the channel bottom.

A natural spillway is afforded for the reservoir about 1 mile southeast of the dam site where a rocky gap divides this valley from an adjacent smaller one. The latter is a marshy lake of some 45 acres area, into which flood waters could be safely discharged, running from this lake back to Putah Creek about 2 miles below the dam site. The length of the proposed spillway would be 740 feet, and with 5 feet over the sill it would be capable of discharging 27,500 acre-feet.

Specifications for a rubble concrete dam made in 1900 are as follows:

Length of dam on crest	450 feet
Width of crest	15 feet
Maximum height	120 feet
Elevation at base of dam	1,070 feet
Elevation at outlet of dam	1,120 feet
Elevation at lip of spillway	1,180 feet
Elevation at crest of dam	1,190 feet
Water slope	5 in 100
Lower slope	75 in 100
Capacity of reservoir	143,300 acre-feet
Weight of rock per cubic feet	167.5 pounds
Total amount of concrete	33,532 cubic yards
Additional rock	11,178 cubic yards
Rock excavation at dam	8,500 cubic yards
Earth excavation at dam	2,000 cubic yards
Rock excavation at spillway	4,000 cubic yards

The estimated cost of this reservoir in 1900 was about $550,000, which should be largely increased to keep pace with increased cost of materials and labor that prevails to-day.

MONTICELLO RESERVOIR SITE.

The Monticello reservoir site is located in Napa County, in township 8 north, ranges 2 and 3 west, Mt. Diablo Meridian, and in Las Putas land grant, and extends westerly from the boundary line between Napa and Yolo counties to a point 1 mile west of the town of Monticello. The dam site is located on Putah Creek at a narrow gorge about 10 or 12 miles west of Winters. Bedrock is exposed on both sides of the canyon, and is apparently not far below the surface of the stream, and is composed of heavy gray sandstone. The stone is being quarried at the dam site and used for building purposes. The weight per cubic foot determined from sample taken from the quarry is 173 pounds.

Because of the large area of improved farming land in Berryessa Valley that would be flooded by back water from the overflow weir or dam during high water, if the elevation of the weir should be fixed at 150 feet, it is believed that the top of the weir should be at the 140-foot contour. The effective storage capacity of the reservoir at this elevation is 99,000 acre-feet. This height has been taken in making the estimate. The elevation of the top of the dam has been fixed at the survey contour of 155 feet, and the wasteways at 140 feet, which is about 130 feet above the stream. The wasteway on the right bank is 100 feet and the one on the left bank 125 feet wide. These will be formed by excavating rock on either side of the canyon for the construction of the dam. With the water at the top of the dam or 15 feet on the weirs approximately 43,000 second-feet would be discharged; with 2 feet of water over the dam approximately 55,000 second-feet would be discharged; and with 5 feet of water over the dam approximately 78,000 second-feet would be discharged. The maximum flood flow of Putah Creek at Winters, on March 23, 1907, was estimated by the Geological Survey at 33,000 second-feet. If the run-off should reach 100 feet per square mile, the maximum discharge would be 51,500 second-feet. The capacity of the reservoir at the 140-foot elevation is approximately 99,400 acre-feet, and at the 150-foot elevation 130,000 acre-feet.

Capacity of Reservoir Site.

Height above bottom. Feet.	Area. Acres.	Capacity between contours. Acre-feet.	Total capacity. Acre-feet.
20	25.1		
		386.0	
Outlet 30	52.1		386.0
		802.0	
40	108.3		1,188.0
		1,196.5	
50	131.0		2,384.5
		2,000.0	
60	269.0		4,384.5
		3,170.5	
70	365.1		7,555.0
		4,346.0	
80	504.1		11,901.0
		5,841.5	
90	664.0		17,742.5
		7,908.0	
100	917.4		25,650.5
		11,004.5	
110	1,283.5		36,655.0
		15,755.0	
120	1,867.5		52,410.0
		21,163.0	
130	2,365.1		73,573.0
		25,822.0	
140	2,799.3		99,395.0
		30,610.0	
150	3,322.7		130,005.0
Total			130.005.0

Capacity at 140 contour	99,395 acre-feet.
Capacity below 30 contour	386 acre-feet.
	99,009 acre-feet.

Average storage capacity, 99,009 acre-feet. Drainage area, exclusive of that above Guenoc site, 455 square miles. Elevation of outlet, 30 feet. The mean annual run-off for the four years, 1906–09, was 601,000 acre-feet.

If the works should be constructed as designed it might be desirable to increase the height of the weirs to 150-foot elevation at some future time, if the demand for irrigation water should justify it. No soundings have been made for bedrock at the dam site. It has been assumed that it will be reached within 30 feet below the present river bed, which is approximately 10 feet in elevation. A rubble concrete overflow dam has been estimated upon. It has been assumed that 70 per cent of the mass of the dam will be large rock (quarried from the spillways), 15 per cent cement mortar, and 15 per cent concrete. There is a large amount of sand and gravel in the stream bed a few hundred feet above the dam site, which can be used for making concrete. In addition to the stability of the dam on account of its weight, it is proposed to construct this as a curved dam with a radius of 320 feet on the upper face.

A portion of land that would be flooded by the construction of this reservoir is in bearing fruit trees with substantial farm houses. Practically all of the town of Monticello would be submerged, a large stone bridge across Putah Creek and a small stone bridge over tributary of Putah Creek near Monticello would be under water, and the lower part of Berryessa Valley.

Specifications.—Curved overflow rubble masonry dam, with spillway.

Elevation of top of dam	155 feet
Elevation of spillways	140 feet
Assumed elevation of bed rock	20 feet
Elevation of outlet	30 feet
Maximum height of dam	175 feet
Capacity of reservoir	99,000 acre-feet
Capacity of 3 outlet gates under 10-foot head	942 second-feet
Capacity when water is 15 feet deep on spillway	3,360 second-feet
Weight of rock per cubic foot is	173 pounds

It has been assumed that 70 per cent of the dam is to be large sandstone blocks, 15 per cent cement mortar, and 15 per cent concrete.

Estimate by Reclamation Service of cost of dam, outlet works, right of way, engineering, contingencies, supervision, and contractor's profits $1,219,075

This is equivalent to a cost of storage works per acre-foot of water of $12.31, which should be largely increased on account of present prices of materials and labor.

CACHE CREEK, CALIFORNIA.

LOCATION AND PHYSICAL FEATURES.

Cache Creek, the only outlet of Clear Lake, is situated in Lake County, California, about 75 miles north of San Francisco. From the lake the creek flows eastward to the corner of Lake, Colusa, and Yolo counties, thence across Yolo County to the sink 8 miles northeast of Woodland.

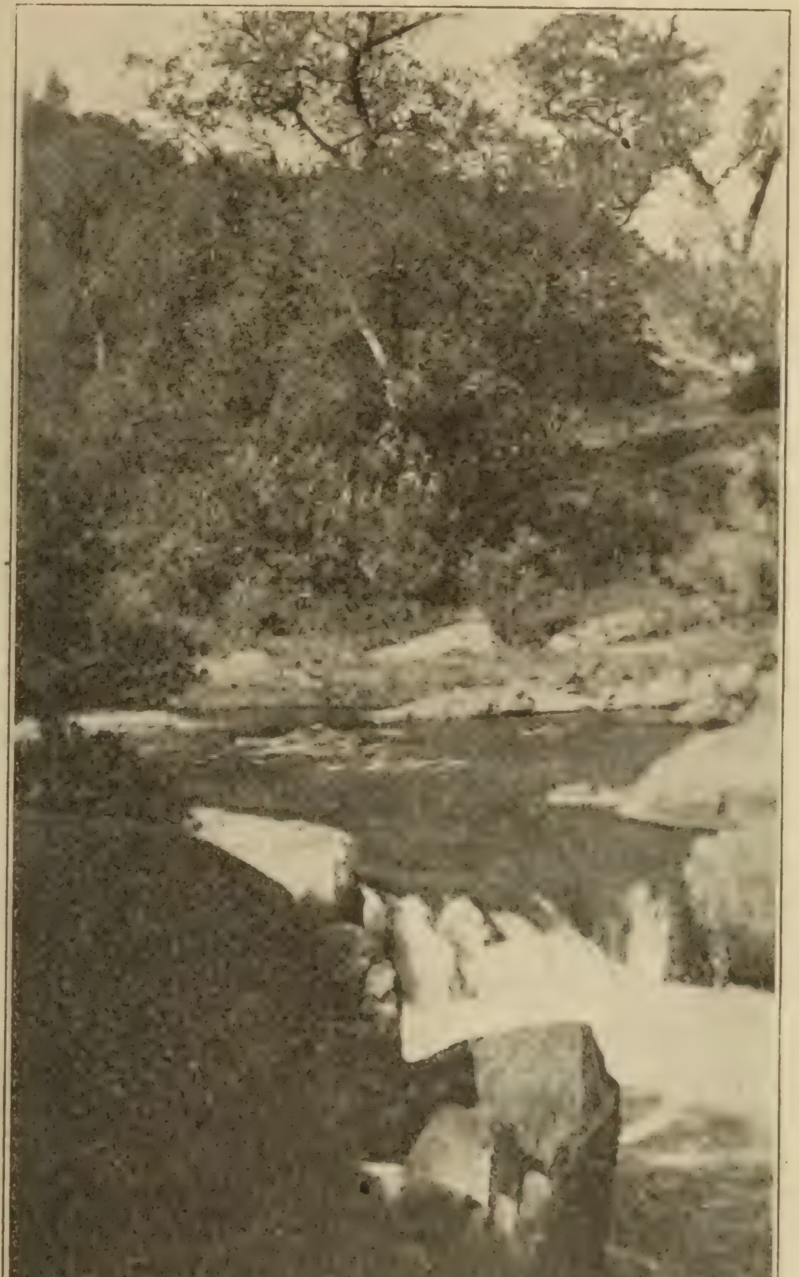
Outlet of Clear Lake, Lake County.

Fourteen miles from the lake the main stream is joined by the North Fork, often called Cache Creek. This branch drains the country to the north and east of the lake, and adds very materially to the drainage area of the creek, but it is much smaller than the stream from the lake and should be considered a tributary.

The drainage area of the main creek and its branches has been estimated by the California State Engineering office as 1,192 square miles.

TOPOGRAPHY.

The country in Lake County tributary to Cache Creek is exceedingly mountainous and rugged. The peaks to the north rise to an elevation of 6,000 feet, and their slopes, as well as those of the lower ranges, may well be termed precipitous. On the northern slopes of the ranges near the lake are magnificent belts of fir, white oak, and yellow pine. Elsewhere, however, the only evidence of vegetation is a dense growth of greasewood and chaparral. The interlaced branches of these shrubs make progress through them painfully difficult, but offer little resistance to escaping rain water.


View of the falls on Cache Creek.

From the Lake, Cache Creek flows through an open country for 5 miles, with a grade of 4.53 feet to the mile. It then follows Cache Creek Canyon for 25 miles. For the first 9 miles of its course through the canyon it has an average grade of 40.33 feet to the mile, varying from 20.41 feet to 137.94 feet. For the remaining distance the average slope is about 30 feet to the mile.

The mountains which form the walls of the canyon rise several hundred feet above the stream, and in many places the immediate banks of the creek stand as perpendicular cliffs 300 feet in height. The bed is generally rendered very rocky by outcropping sandstone and serpentine and the resulting boulders. At no place is there a basin which might be used effectively for storage purposes.

After leaving the canyon the creek enters Capay Valley, in Yolo County, through which it winds for a distance of 28 miles, with a grade of 9.5 feet to the mile. Capay Valley is 20 miles long and from one mile to three miles wide. From Capay Valley the creek enters the greater Sacramento Valley and flows, with a slope of 4 to 6 feet to the mile, to Tule Basin, bordering Sacramento River. There its natural channel ceases, and its waters enter a canal which connects the sink with Tule canal. The latter was built by the State of California in 1864 to drain Tule Basin. It empties into Big Lake in the extreme southeast corner of Yolo County, and from the lake its waters reach the Sacramento through a slough.

"Grigsby Riffle," on Cache Creek, near the junction of Seigler Creek.

Reservoir sites on North Fork of Cache Creek—The North Fork of Cache Creek rises in the mountains north of Clear Lake. Its principal tributaries are Bartlett, Wolf, and Long Valley creeks. Below Long Valley Creek there are no streams tributary to the North Fork. There are numerous canyons down which the storm waters rush after heavy rains, but none in which water can be found in summer. The North

Fork itself generally has no running water in its lower reaches after July.

Reservoir Site on North Fork—The only basins in the North Fork system which might be mentioned as reservoir sites are Twin Valleys, Little Indian Valley, and Long Valley.

The Twin Valleys are situated on a short branch of the North Fork a few miles north of Bartlett Springs. The upper valley is an ideal place for a storage basin; but as the entire catchment area above the valley is only 5 square miles, there would be very little water for storage purposes, and they cannot, therefore, be recommended as reservoir sites.

Long Valley is situated on Long Valley Creek, 2 miles from its mouth. It is 6 miles long, and has an average width of 1,000 feet, and a grade of 25 feet to the mile. Although it has a drainage area of about 30 square miles, the run-off during the drier years, when water is most needed, is stated, on excellent authority, to be very small, as might be expected from experience elsewhere in the same region. Moreover, the valley at its foot, the so-called Narrows, is 700 feet wide. Even should an ample supply be assured, the cost of a dam across the Narrows would be almost prohibitive.

LITTLE INDIAN VALLEY.

Little Indian Valley, the only basin on the North Fork to be recommended as a reservoir site, is 5 miles long, and averages from a half to three quarters of a mile in width. Almost half of the entire area is under cultivation, but the soil contains so much gravel that the grain crops are very light. A small portion of the middle of the valley and near the creek is irrigated for vegetables, a temporary earthen dam being thrown across the stream at a point where the rock outcrops.

A reconnaissance survey of the valley was made to determine its approximate storage capacity, contours being located at intervals of 25 feet, up to the 100-foot level. The following table shows the acreage of each of the four planes, and the storage capacity, in acre-feet, at the intermediate layers; also the total capacity for each contour. The area of the 125-foot contour is estimated to be 1,500 acres, which is considered a minimum figure, as the valley widens very appreciably at its upper end.

Storage Capacity of Little Indian Valley Reservoir Site.

Contour.	Area. Acres.	Capacity. Acre-feet.	Total capacity. Acre-feet.
25-foot	50	625	625
		4,625	5,250
50-foot	320		
		11,875	17,125
75-foot	630		
		20,500	37,625
100-foot	1,010		
		31,375	69,000
125-foot	1,500		
130-foot		7,500	76,500

Clear Lake—For a discussion of Clear Lake reservoir site see Water-Supply Paper No. 45.

STONY CREEK BASIN.

An investigation of Stony Creek basin was carried on in 1900 by the United States Geological Survey in co-operation with the California Water and Forest Association and the Willows Chamber of Commerce. The purpose of the surveys was to determine the location and capacity of reservoir sites, which could be utilized to store the flood waters of this stream so that the land in Glenn County above the Central Irrigation Canal, Sacramento Valley, could be irrigated. Stony Creek basin has peculiar topography. The main stream flows northerly and parallel with the Coast Range, and lies wholly in the sedimentary rock. It is fed by several tributaries which flow easterly from the granite crest of the Coast Range. These tributary streams have a very heavy grade from their source to near the point where they join the main stream and enter the sedimentary rock. At various points in the basin, a conglomerate of more or less hardness is upturned in line parallel with the axis of the main range and has resisted erosion to a very large extent. Wherever this ridge has been cross-cut by the various streams, dam and reservoir sites are found.

Reservoir sites of considerable merit were discovered and surveyed on Briscoe Creek, Little Stony Creek at East Park, subsequently developed by the United States Reclamation Service, and Stony Creek at Mill Site below the mouth of Grindstone Creek. Reservoir sites were also discovered on Grindstone and Salt creeks, but were not considered of sufficient capacity to justify a topographic survey. A site was found on the North Fork of Stony Creek, near the town of Newville, and a plane table survey was made up to the 60-foot contour. The capacity of this site is 25,400 acre-feet at this elevation. The area covered was 1,350 acres. The foundation and abutments at the dam site are not good. a portion of the land that would be flooded is very valuable, and the run-off from the drainage area tributary to the site was not considered sufficient to furnish 25,400 acre-feet annually. The possibility of increasing the water supply by diversion from Thomas Creek was investigated. It was ascertained that the cost of diverting this stream would be too great, but the plan was also not considered advisable because of the fact that a useful reservoir site exists on this stream below the proposed diversion point, which would be greatly damaged by the diversion.

East Park Site—This reservoir site is located on Little Stony Creek at the Lodoga. It has been developed by the United States Reclamation Service for the benefit of the Orland Project. The probable mean annual run-off of Little Stony Creek past the dam site is 98,000 acre-feet. The drainage area above the reservoir is 102 square miles in extent. The dam is of the concrete gravity type, erected to a maximum height of 139 feet. The length of the crest is 220 feet and the contents equal 13,000 cubic yards. The area of the reservoir is 1,800 acres and the capacity, 45,000 acre-feet. The dam has a spillway length of 415 feet at an elevation of 85 feet above the stream bed. The cost of the reservoir is about $4.50 per acre-foot stored.

Briscoe Creek—This creek has a catchment area of 58 square miles of good mountain drainage. The crest of the drainage is a high mountain, locally known as Sheetiron Mountain, and inhabitants of this locality report that it lies in what may be termed a "rainy belt" having a width of about six miles and extending northeast from this mountain about 8 miles. Briscoe Creek, in section 30, township 20 north, range 6 west, Mt. Diablo Meridian, intersects a conglomerate bed in a narrow rocky gorge that is in places only 3 feet wide. The site was surveyed and found to have a capacity of 14,385 acre-feet with a dam 125 feet high. The estimated annual discharge of the stream at the dam site is 55,000 acre-feet. A subsidiary dam at the divide, 1,700 feet north of the dam site, will also be necessary, with a maximum height of 30 feet. The conglomerate at the dam site is very hard. A sample taken weighed 143 pounds per cubic foot. Bedrock is at the surface in the canyon at the dam site, and the walls of the canyon are firm.

A reservoir under construction above Volta, Cal.

In the year 1900 the Geological Survey made a study of three types of dams that were believed to be suited to this site. It was considered that the best type of dam for this place will be a cyclopean concrete gravity dam with a concrete spillway at the subsidiary dam.

The estimate of cost is as follows:

Estimate for dam on Briscoe Creek of type No. 1, concrete dam with wasteway to the north.

Specifications.	Feet.
Length of dam on crest	360
Width of crest	12
Maximum height	125
Radius of crest	300
Elevation at base of dam	60
Elevation at outlet	90
Elevation at crest of spillway	180
Elevation at crest of dam	185
Front slope	½ to 1
Back slope	5 to 100
Capacity of reservoir	14,385 acre-feet
Weight of conglomerate	143 pounds per cubic foot
Estimated total cost	$251,024 00
Cost per acre-foot stored	17 45

On account of increase in the cost of materials, labor, etc., it is probable that the cost of this dam at the present time would be 50 per cent greater than the foregoing figure.

Mill Site—At a point on the main creek in section 1, township 21 north, range 6 west, Mt. Diablo Meridian, locally known as the "Mill Site," the main stream intersects a conglomerate bed. The location is 1¾ miles above the Geological Survey gaging station and 7 miles northwest of Fruto. As it is near the Sacramento Valley, and has back of it over 330 square miles of drainage area, exclusive of Briscoe and Little Stony creeks, this site is relatively important. A dam at this point, 95 feet above the stream bed, would impound 43,700 acre-feet of water. The mean annual run-off for the nine years, 1901-09, is 590,000 acre-feet.

The depth to bed rock is assumed to be 35 feet. The wall rock is not good, and material for concrete would have to be transported 1,600 feet. Owing to these conditions, it was decided to estimate on a loose or rock-filled dam with ample spillway. The dam designed has a top length of 1,240 feet; upper slope 1 to 1¼; lower slope, 1½ to 1; the upper slope to be faced with an earth embankment built against it with a slope of 3 to 1, the width of the rock on the top to be 15 feet and the earth 5 feet, making the finished crest 20 feet wide. The spillway, calculated to carry 36,250 second-feet of water when flowing 8 feet deep over the sill, is 500 feet wide by 10 feet deep, and would be located to the east of the dam through a low saddle, and discharge several hundred feet below the dam.

Estimate of total cost of rock-fill dam at Mill Site, $670,010.00. Cost per acre-foot stored, $15.32.

These costs were estimated in 1900, and should probably be increased 50 per cent on account of increased cost of materials and labor.

Capacity of Mill Site Reservoir.

Contour. Feet.	Height of dam. Feet.	Area. Acres.	Capacity between contours. Acre-feet.	Total capacity. Acre-feet.
55	0	0	0	0
60	5	25.9	130	65
70	15	117.1	715	780
80	25	268.3	1,927	2,707
90	35	398.2	3,333	6,040
100	45	504.6	4,514	10,554
110	55	629.4	5,670	16,224
120	65	798.4	7,139	23,363
130	75	1,029.1	9,137	32,500
140	85	1,231.2	11,300	43,700

Elevation of outlet, 5 feet above bottom of reservoir.
Elevation of spillway, 85 feet above bottom of reservoir.
Capacity, 43,700—65=635 acre-feet.

This water could be used to irrigate the rich foothill lands on the west side of the Sacramento Valley between Orland and Willows.

The capacity of the Mill Site reservoir not being sufficient to impound all of the flow of Stony Creek, a further investigation was made in February, 1901, of the feasibility of diverting a portion of this water into Hambright and Eppinger creeks, small streams rising in the foothills and discharging into the Sacramento Valley. Certain reservoir sites exist on those streams too large to be filled from their drainage basins. The result of this investigation indicated that the cost of the diversion-canal line would be too heavy and the reservoir capacity not sufficient to justify the necessary expense incident to this construction.

GOOSE LAKE.

Goose Lake is situated in Lake County, Oregon, and Modoc County, California. The tributary drainage area is variously estimated at from 1,135 to 1,300 square miles. There are no topographic maps that fix the outline of the portion of the basin in Oregon. This basin is properly a part of the Sacramento River watershed, though no water has probably reached the Pit River from the lake since 1862. In the summer of 1904, Goose Lake covered approximately 186 square miles, or a little more than 119,000 acres.

In July, when the topographic survey was made of the outlet, the surface of the lake was one foot below the highest point in the outlet channel. The evaporation is ordinarily greater than the inflow. Taking the depth of evaporation to be three feet, the loss from the lake surface would be more than 300,000 acre-feet per annum. The above survey was made in order to determine the possibility of draining the lake entirely, or of reducing the area exposed to evaporation, and using the water thus saved for irrigating the lands along the Pit River. A preliminary hydrographic survey was also made to determine the depth of the lake. The soundings taken indicate that the bottom of the lake is comparatively level, and that the slopes near the shore are quite steep. The greatest depth found was 25 feet. The lake will have to be lowered 20 feet to reduce the area to approximately one half its present area.

The following table gives the approximate area and storage capacity of the lake for intervals of 5 feet:

Goose Lake.

(61 square miles in Oregon; 125 square miles in California; total, 186 square miles.)

	Area.		Capacity. Acre-feet.
	Sq. miles.	Acres.	
Lake full	186	=119,000	2,155,000
Lower 5 feet	171	=109,400	1,584,000
Lower 10 feet	161	=103,000	1,055,000
Lower 15 feet	142	= 90,900	568,250
Lower 20 feet	92	= 58,800	193,750
Lower 25 feet	29	= 18,600	Practically nothing

The following analysis of a sample of water from Goose Lake was made at the Agricultural Experiment Station of the University of California:

Analysis of water from lower end of Goose Lake, sample taken August 23, 1904, by S. G. Bennett.

	Grains per gallon.	Parts per 100,000.
Potassium sulphate (very small) Sodium sulphate	18.06	30.91
Sodium chloride (common salt)	7.02	12.02
Sodium carbonate (sal soda)	30.90	52.89
Calcium and magnesium carbonates, etc. (small) Calcium sulphate (gypsum) trace Silica, chiefly	6.99	11.96
Organic matter, large, and chemically combined water	3.79	6.48
	66.76	114.26

"This result shows that the water is unfit for domestic and irrigation purposes."
(Signed) GEO. E. COLBY.

A large amount of the impurities in the water has resulted from concentration by evaporation, as there has been no outflow for about forty-two years. The water flowing annually into the lake is thought to be well adapted for irrigation purposes.

In February, 1905, the state legislatures of California and Oregon passed acts granting the Federal Government the right to drain certain interstate and navigable lakes, including Goose Lake, and relinquishing all rights to the swamp and overflow land thus covered. A bill was also passed by congress granting the U. S. Reclamation Service the right to change the water surface or drain said lakes.

JESS VALLEY RESERVOIR.

The dam site of the proposed Jess Valley reservoir is located on the South Fork of Pit River in section 10, township 39 north, range 14 east, Mt. Diablo base and meridian. The valley has been surveyed for 100 feet in elevation above the level of the stream bed at dam site, which is 100 feet above zero datum of survey and approximately 4,800 feet above sea level. The storage capacity at that elevation is 224,560 acre-feet. The capacity, divided by the area at the 100-foot contour, gives an average depth of 66.56 feet, which indicates the steepness of the sides of the valley. The area of the watershed is 91 square miles. The drainage area includes Eagle Peak, which has an elevation of 9,934 feet. The principal part of the water supply is furnished by melting snow from Warner Mountains. The estimated run-off for the year 1904 was 71,300 acre-feet, which is equivalent to a depth of 14.70 inches over the entire watershed. The maximum discharge was 625 second-feet. The run-off in 1905 was approximately 39,100 acre-feet, or a depth of 7.41 inches. The probable average run-off for the five years 1904-1908 inclusive was 55,000 acre-feet. Thus the capacity of the reservoir is much greater than the supply.

Dam—Provisional plans and estimates have been made for a dam 60 feet high, the outlet level at 10 feet, and the spillway at 50 feet. The effective storage capacity is 81,346 acre-feet. There is practically no sand in this vicinity, so a rock-fill dam, with earth face, has been adopted as a type most suitable for the locality. On account of the scarcity of sand, the same type has been used in making estimates for West Valley, Warm Spring Valley, and Round Valley dams. The spillway would be formed by the excavation of the rock for the dam.

Specifications for rock-fill dam.

Length of dam at crest	305 feet
Width of crest	20 feet
Maximum height	60 feet
Survey elevation of outlet	110 feet
Survey elevation of spillway	150 feet
Capacity of outlet	275 second-feet
Estimated capacity of spillway	10,556 second-feet
(Spillway formed by excavation of rock for dam)	
Earth slope	3 to 1
Upper rock slope	1¼ to 1
Lower rock slope	1½ to 1
Storage capacity	81,346 acre-feet
Weight of rock per cubic foot	168.8 pounds
Contents of rock-fill	35,170 cubic yards
Contents of earth-fill	21,360 cubic yards
Riprap on earth face	42,000 square feet
Contents of cut-off wall, concrete	1,500 cubic yards
Estimated cost of dam, spillway, cut-off wall, outlet works, right of way, engineering supervision and contractor's profits	$196,500 00

Assuming that 35,000 acre-feet can be furnished annually from the reservoir, the cost per acre-foot for the construction of the works will be $5.61. As this estimate was made in 1900, it will probably have to be increased about 50 per cent in order to allow for increased cost of material, labor, etc., at the present time.

WEST VALLEY RESERVOIR SITE.

This reservoir site is located on West Valley Creek, a tributary of the South Fork of Pit River. The area of the watershed tributary to West Valley is, approximately, 142 square miles. The estimated run-off for 1904 was 33,200 acre-feet, and for 1905, 16,200 acre-feet, and probably averaged about 25,000 acre-feet for the five years 1904-1908 inclusive. The valley has been surveyed for 100 feet in elevation above the level of the stream bed at the dam site, which is 100 feet above zero datum of survey and approximately 4,600 feet above sea level. The storage capacity at that elevation is 94,579 acre-feet. The full capacity, divided by the area covered, gives an average depth of 51.12 feet. The sides of the valley are steep. The dam site is located in section 18, township 39 north, range 14 east, Mt. Diablo base and meridian.

Specifications for rock-fill dam.

Length of dam on crest	340 feet
Width of crest	20 feet
Maximum height	70 feet
Survey elevation of outlet	120 feet
Survey elevation of spillway	160 feet
Capacity of outlet	110 second-feet
Estimated capacity of spillway	10,556 second-feet
(Spillway formed by excavation of rock for dam)	
Upper earth slope	3 to 1
Upper rock slope	1¼ to 1
Lower rock slope	1½ to 1
Storage capacity	32,200 acre-feet
Weight of rock per cubic foot	169 pounds
Contents of rock-fill	39,315 cubic yards
Contents of earth-fill	23,515 cubic yards
Riprap on earth face	43,168 square feet
Contents of cut-off wall, concrete	1,450 cubic yards
Estimated cost of dam, spillway, cut-off wall, outlet works, right of way, contingencies, engineering, supervision and contractor's profits	$175,000 00

Assuming that 25,000 acre-feet can be furnished annually from the reservoir, the cost per acre-foot for the construction of the works will be $7.00. This estimate was made in 1904, and in order to keep pace with the increased cost of labor and materials, it will probably have to be increased about 50 per cent.

WARM SPRING VALLEY RESERVOIR.

The area of the watershed tributary to the Warm Springs Valley reservoir is 1,500 square miles, not including the Goose Lake drainage. The estimated run-off from this basin from January 1 to December 31, 1904, was 690,000 acre-feet, which is equivalent to a depth of 8.63 inches. The maximum discharge was 17,000 second-feet. The estimated run-off for 1905 was 156,000 acre-feet, which is equivalent to a depth of 1.95 inches. The mean flow for the five years 1904-1908, inclusive, averages about 423,000 acre-feet. The rainfall for 1904 was unusually heavy and that for 1905 unusually light. The valley has been surveyed 80 feet in elevation above the stream bed at the dam site in the lower half of the valley and 70 feet in the upper portion. The stream bed at dam site was assumed at 100 feet above zero datum of survey and is approximately 4,400 feet above sea level. The 180-foot contour takes in the town of Alturas, the county seat of Modoc County. The total capacity, divided by the area of the water surface at the 170-foot contour gives an average depth of 22.66 feet or 32.3 per cent of maximum depth. In making the plans of the dam, the outlet has been fixed at 20 feet and the spillway level at 60 feet above the stream bed at the dam. The effective capacity of the reservoir is 334,500 acre-feet. The basin may furnish this amount in years of average rainfall. This can only be determined by continuing the gaging records at Canby Bridge. The dam site is located in section 9, township 41 north, range 9 east, Mt. Diablo base and meridian.

Specifications for rock-fill dam.

Length of dam on crest	500 feet
Width of crest	20 feet
Maximum height	70 feet
Survey elevation of outlet	120 feet
Survey elevation of spillway	160 feet
Capacity of outlet	1,115 second-feet
Estimated capacity of spillway	21,110 second-feet
(Spillway formed by excavation of rock for dam.)	
Upper earth slope	3 to 1
Upper rock slope	1¼ to 1
Lower rock slope	1½ to 1
Storage capacity	334,500 acre-feet
Weight of rock per cubic foot	170 pounds
Contents of rock-fill	78,669 cubic yards
Contents of earth-fill	49,646 cubic yards
Riprap on earth face	75,480 square feet
Contents of cut-off wall, concrete	2,500 cubic yards
Estimated cost of dam, spillway, cut-off wall, outlet works, right of way, engineering, supervision and contractor's profits	$670,300 00

Assuming that 334,500 acre-feet can be furnished annually from the reservoir, the cost per acre-foot for the construction of the works will be $2.00. This estimate was made in 1904, and in order to keep pace with the increased cost of labor, materials, etc., it will probably be necessary to increase the estimate by about 50 per cent.

ROUND VALLEY RESERVOIR ON ASH CREEK.

Ash Creek is a tributary of Pit River and enters this stream in Big Valley, near Bieber, California. The area of the watershed of Ash Creek, above the Round Valley reservoir, is 265 square miles. The run-off from this watershed was 160,700 acre-feet in 1904, 54,600 in 1905, and probably averaged about 107,000 for the five years from 1904 to 1908, inclusive. The valley has been surveyed for 100 feet in elevation above the level of the stream bed at the dam site, which is 100 feet above zero datum of survey and approximately 4,460 feet above sea level. At this elevation it would contain 184,700 acre-feet. This is a bowl-shaped basin. The average depth of the water would be 26 feet. The effective storage capacity of the reservoir as planned is 42,500 acre-feet. The height of the dam was fixed at 70 feet, on account of the softness of the rock in sight. It is believed that the basin will supply this amount in years of minimum rainfall. The dam site is located one half mile above Adin, Cal., in section 2, township 39 north, range 9 east, Mt. Diablo base and meridian.

Specifications for rock-fill dam.

Length of dam on crest	740 feet
Width of crest	20 feet
Maximum height	70 feet
Survey elevation of outlet	110 feet
Survey elevation of spillway	160 feet
Capacity of outlet	142 second-feet
Estimated capacity of spillway	7,460 second-feet
(Spillway formed by excavation of rock for dam.)	
Upper earth slope	3 to 1
Upper rock slope	1¼ to 1
Lower rock slope	1½ to 1
Storage capacity	42,400 acre-feet
Contents of rock-fill	101,524 cubic yards
Contents of earth-fill	64,900 cubic yards
Riprap on earth face	104,680 square feet
Contents of cut-off wall, concrete	2,840 cubic yards
Estimated cost of dam, spillway, cut-off wall, outlet works, right of way, engineering, supervision, contingencies, and contractor's profits	$389,000 00

Dam near head of North Battle Creek, Northern California Power Company.

Cost per acre-foot for construction of works will be $9.16+, making the unit price for storage here greater than at any other of the Pit River reservoirs. This estimate was made in 1904, and in order to keep pace with the increased cost of materials, labor, etc., it will probably be necessary to increase the estimate by about 50 per cent.

BIG VALLEY RESERVOIR.

The area of the watershed tributary to the Big Valley Reservoir is approximately 2,950 square miles. If it is found possible to drain Goose Lake and divert the run-off from this basin into Pit River, the drainage area above Big Valley dam site will be about 4,200 square miles.

The mean run-off at Bieber for the five years 1904-1908, inclusive, was about 735,000 acre-feet. The area exposed to evaporation in the Big Valley reservoir, when the depth is 70 feet at the dam, is 83 square miles. Much of the time the reservoir would be only partially filled. The average area exposed to evaporation would probably not exceed 50 square miles.

This is the only dam thus far examined on Pit River where sand is found. The sand at this point is mixed with silt and will have to be washed.

Estimates of cost have been made for a dam 70 feet high above the bed of the stream with a heavy section to carry an overflow weir over part of the crest. It is believed that this will give the reservoir sufficient capacity to store all of the water furnished by the watershed.

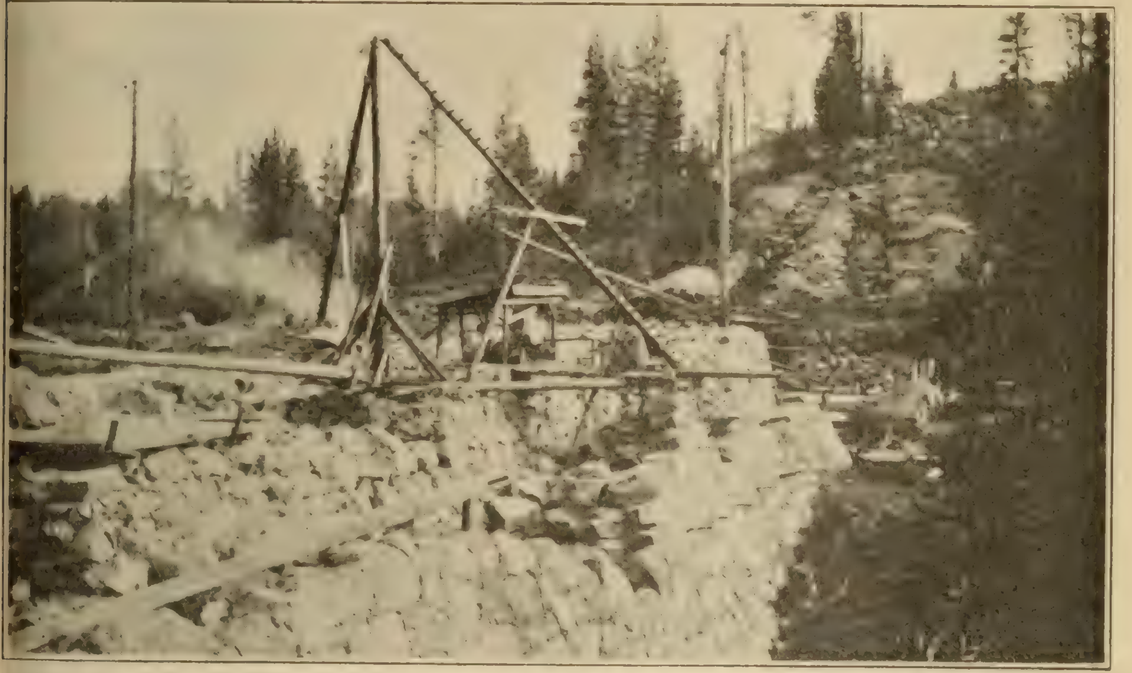
In designing the outlet works, it has been assumed that 1,000,000 acre-feet could be supplied from the reservoir annually. It will be necessary to discharge this amount in five months, or 150 days, which is the usual length of the irrigation season. In order to do this, the outlet must have a capacity of 3,400 second-feet. The design includes ten outlet gates 4 by 5 feet, which will discharge this amount under a 10-foot head. The dam site is located in section 27, township 37 north, range 7 east, Mt. Diablo base and meridian.

Specifications for overflow dam.

Survey elevation of base of dam	80 feet
Survey elevation of stream bed	100 feet
Survey elevation of outlet openings	120 feet
Survey elevation of weir crest	170 feet
Survey elevation of top of dam	180 feet
Height of dam	100 feet
Length on top	535 feet
Width on top	20 feet
Water slope	5 in 100
Lower slope	75 in 100
Capacity of reservoir	1,291,663 acre-feet
Estimate of cost of dam, outlet works, right of way, contingencies, engineering, supervision, and contractor's profits	$2,640,150 00

If the results of the continuation of the stream flow record should justify the first assumption that 1,000,000 acre-feet could be furnished annually from the reservoir, the cost per acre-foot for the construction of the works would be $2.64.

Assuming that 750,000 acre-feet can be furnished annually from the reservoir, the cost per acre-foot for the construction of the storage works would be $3.52. This estimate was made in 1904, and in order to keep pace with the increased cost of labor and materials, it will probably be necessary to increase the estimate by about 50 per cent.



Dam on North Battle Creek, near the head of creek. Northern California Power Co.

SACRAMENTO RIVER—IRON CANYON RESERVOIR.

The Iron Canyon reservoir site is located on the Sacramento River, 7 miles above Red Bluff, California. It was surveyed in September and October, 1903. The estimated effective capacity of this site is 226,900 acre-feet. The elevation of the top contour of the survey was 350 feet. The mean annual flow at this place is many times greater than the storage capacity.

The outlets must have sufficient capacity to discharge 226,900 acre-feet in 120 days in addition to passing 4,000 second-feet for navigation and 3,400 second-feet from Big Valley reservoir, if that should be constructed, or a total capacity of 8,350 second-feet. The gates designed have a capacity of 4,950 second-feet, under a 10-foot head. The cost of additional gates for passing Big Valley water was not included in the estimate.

In order to irrigate nearly 40,000 acres of red foothill and bench land near Red Bluff, which is thought to be particularly well adapted to fruit raising, it may be considered advisable to divert water from the reservoir at an elevation of 330 feet. If this should be done, the effective storage capacity of the reservoir would be 153,900 acre-feet. The advantage gained by making the diversion at this elevation would be a saving of the cost, and making possible the generation of about 16,000 horsepower of electrical energy from the water which it would be necessary to pass through the reservoir for navigation purposes, in addition to irrigating the land mentioned above. The intake tunnel would be about 10,000 feet southerly from the dam and 1,000 feet from spillway No. 2.

Dam—The dam site is located in section 27, township 28 north, range 3 west, Mt. Diablo base and meridian. A rubble concrete dam has been designed for this reservoir. There will be a spillway 1,200 feet in length on the left bank of the river at the dam, and one 600 feet in length located at a divide 9,000 feet southerly from the dam. The elevation of the sill of these spillways is 360 feet. The elevation of the top of the dam will be 370 feet. The combined capacity of the two weirs with 10 feet of water on the sills is 183,600 second-feet.

The difficulties to be contended with in the erection of this dam are the handling of the summer flow of the Sacramento River when putting in the foundations, and in preparing the works to withstand the flood discharge in the winter before the completion of the dam.

On either side of the low-water channel, which is a rock gorge of from 120 to 170 feet wide, there is a comparatively flat area of solid rock between the adjoining hills that form the flood channel. This area on the right bank is approximately 100 feet wide. A canal 100 feet wide with a depth of 10 feet and grade of 1 in 100 would carry 24,200 cubic feet per second.

Specifications for rubble concrete dam.

Elevation of base of dam above sea level	220 feet
Elevation of outlet	270 feet
Elevation of crest	370 feet
Elevation of spillway	360 feet
Maximum height of dam	150 feet
Weight of rock per cubic foot	166.6 pounds
Length of dam	740 feet
Length of spillway No. 1	1,200 feet
Length of spillway No. 2	600 feet
Width of crest	20 feet
Water slope	5 in 100
Lower slope	75 in 100
Capacity	226,300 acre-feet
Preliminary estimate of cost of dam, spillways, outlet works, right of way, engineering, supervision, contingencies, and contractor's profits	$1,855,000 00

The reservoir will hold 226,300 acre-feet of water, which makes the cost for building the works $8.20 per acre-foot stored. This estimate was made in 1904, and in order to keep pace with the cost of materials, labor, etc., it will be necessary to increase the estimate by about 50 per cent.

AMERICAN VALLEY RESERVOIR SITE.

A possible reservoir site exists at American Valley, Plumas County, in township 24 north, ranges 9 and 10 east, Mt. Diablo meridian. For the following reasons it seems doubtful if this site will ever be seriously considered in the near future. Quincy, the largest town and county seat of Plumas County, is located in this valley. The location of a transcontinental railway, the Western Pacific, passes through the dam site. An auxiliary dam 1,800 feet long would have to be constructed at a low divide one mile west of the main dam site.

A contour map of this valley was obtained from Mr. William Watson, C. E. The following table gives the capacity from 3,375-foot elevation to 3,450-foot elevation.

Contour.	Acres.	Acre-feet.	Total acre-feet.
		3,167	
3,375	633.4		3,167
		14,987	
3,400	2,364.1		15,154
		29,889	
3,425	3,613.7		45,043
		41,012	
3,450	4,588.8		86,055
		86,055	

A reconnaissance was made in the eastern part of American Valley, locally known as Thompson Valley, to see if it would be possible to utilize this as a storage reservoir. The width of the valley at the narrowest point is 1,300 feet. The capacity of this site with the greatest depth of water of 50 feet, would be 14,900 acre-feet.

SPANISH RANCH VALLEY.

A reconnaissance was made in September, 1905, of Meadow and Spanish Ranch valleys, located in township 24 north, range 8 east, Mt. Diablo meridian. The grade of the former is so steep that it could not be used for a storage basin. A reservoir of small capacity could be constructed at Spanish Ranch Valley.

The following table gives the capacity of this valley at 25-foot intervals from the 3,600- to 3,700-foot contour:

Capacity of Spanish Ranch Reservoir Site, Plumas County, California.

Contour.	Acres.	Acre-feet between contours.	Total acre-feet.
3,600	0		
		70	
3,625	23.5		70
		949	
3,650	166.3		1,019
		2,615	
3,675	356.8		3,634
		4,835	
3,700	610.2		8,469
		8,469	

Bedrock, which is serpentine, is exposed on the sides of the canyon and in the stream bed at the dam site.

BUCKS VALLEY RESERVOIR SITE.

A reservoir site is located on the west slope of the Sierra Nevada Mountains, Plumas County, in townships 23 and 24 north, range 7 east, Mt. Diablo meridian. Munford's Hill, which lies 5 miles northeasterly of this point, has a mean rainfall of 71.64 inches. The area of the watershed above the dam site is 28 square miles. The run-off from this area in years of mean rainfall would probably exceed 60,000 acre-feet. The principal part of the reservoir site is in private ownership. The dam site and the portion of the valley not in private ownership have been filed upon by private parties as placer mining claims.

The following table gives the capacity of the site:

Capacity of Bucks Valley Reservoir Site, Plumas County, California.

Contour.	Acres.	Acre-feet between contours.	Total acre-feet.
		2,072	
5,120	412.3		2,072
		13,687	
5,140	956.4		15,759
		16,200	
5,155.2 (Flood line)	1,175.2		31,959
		5,884	
5,160	1,276.4		37,843
		37,843	

In addition to its value as a storage basin for irrigation purposes, this reservoir site has considerable value in connection with future power development as Bucks Creek falls 3,000 feet in 8 miles.

GRIZZLY VALLEY RESERVOIR SITE.

A reconnaissance of Sierra Valley and vicinity was made in 1904 by S. G. Bennett. The Reclamation Service was requested to do this work by the inhabitants of this valley, who were anxious to have storage works and canals constructed for the purpose of increasing the irrigated area.

The mean elevation of Sierra Valley is probably 4,875 feet. It contains approximately 144,000 acres of land. There are said to be 25,000 acres under irrigation, the principal part of this being in the vicinity of Sierraville. There is very little alkali in the valley. The soil is a sandy loam. The price of unimproved sagebrush land is from $2.50 to $4.00 an acre. The point from which the people of Sierra Valley hoped to get the principal supply for reclaiming the valley was from the Little Truckee River. A ditch was built some years ago to divert water from this river to the valley, but on account of litigation it was never used. The ditch has a bottom width of 6 feet, and heads on Little Truckee River in township 19 north, range 15 east, Mt. Diablo meridian, near reservoir site No. 1 of the Truckee-Carson Project.

Three reservoir sites in the watershed of the Middle Fork of the Feather River were visited in making the above reconnaissance. These are located at Last Chance Valley, in Last Chance Creek, township 24 north, range 16 east, Mt. Diablo meridian; Graycroft's Neck, on the west side of the Sierra Valley in township 21 north, range 14 east, Mt. Diablo meridian; and Grizzly Valley, in townships 23 and 24 north, ranges 12 and 13 east, Mt. Diablo meridian. The site last mentioned was considered of sufficient value to justify further study and a topographic survey was made in October, 1905, by E. Johnson, Jr. The dam site is located in section 2, township 23 north, range 13 east, at an elevation of approximately 5,800 feet above sea level. The area below the 100-foot contour is 3,151 acres. The valley is used entirely for grazing purposes. The land is of rather poor quality and without improvements. Bedrock, which is granite, is exposed on the surface over the entire area of the dam site.

The following table gives the estimated capacity of the reservoir. Greatest depth of water is 98 feet.

Capacity of Grizzly Valley Reservoir Site.

Contour.	Acres.	Acre-feet.	Total acre-feet.
20	.6		
30	1.5	10.5	10.5
40	20.2	108.5	119.0
50	55.0	376.0	495.0
60	152.3	1,036.5	1,531.5
70	637.8	3,950.5	5,482.0
80	1,404.0	10,209.0	15,691.0
90	2,335.4	18,697.0	34,388.0
100	3,151.0	27,432.0	61,820.0
		61,820.0	

The drainage area tributary to the site is 45 square miles in extent. The run-off from its basin would probably not fill the reservoir to the 100-foot contour in years of low or mean rainfall.

An estimate has been made for a 90-foot concrete rubble dam. For additional safety, the structure would be curved upstream, with a radius of 300 feet at the upper face. The effective storage capacity of the site is approximately 34,300 acre-feet, with the outlet at the 30-foot elevation. The water stored at this point should be used for irrigating land in the Sierra Valley near Beckwith, California, and for a water supply for the town of Beckwith, though it could be used for irrigation in the Sacramento Valley. This land cannot be irrigated from any other source. Sierra Valley is a fertile valley, well adapted to the growing of alfalfa. The principal products of the farmers are oats, barley, wheat, beef, dairy products.

Specifications.

Elevation of base of dam	2 feet
Elevation of top of dam	90 feet
Elevation of outlet	30 feet
Elevation of datum of survey above sea level, approximately	5,800 feet
Width of dam on the crest	16 feet
Width of dam at the base	62½ feet
Length of dam on the crest	240 feet
Capacity of reservoir at 90-foot contour is	34,300 acre-feet
Capacity of outlet under a 10-foot head	116 second-feet
Capacity of outlet under a 60-foot head	284 second-feet
Area of land flooded at 90-foot contour	2,335 acres
Material, rubble masonry, 50 per cent of the mass to be large stones and 50 per cent concrete.	
Estimate of cost for dam, right of way, outlet works, engineering supervision, contingencies, and contractor's profits	$174,843 00

If 20,000 acre-feet are available annually, the cost of the storage works per acre-foot would be $8.74. On account of the increase in cost of materials and labor since the foregoing specifications were made, it is probable that the actual cost would be about 50 per cent greater than the above figures.

MOHAWK RESERVOIR SITE.

The grade of the lower portion of Mohawk Valley was considered to be too steep for the basin to be used as a reservoir. A reservoir site was surveyed by E. Johnson, Jr., in October, 1905, in the upper portion of this valley near Clio.

The following table gives the capacity of this reservoir from the 40-foot to the 100-foot contour:

Capacity of Mohawk Valley Reservoir Site.

Contour.	Acres.	Acre-feet.	Total Acre-feet.
40	1.1		
		69.5	
50	12.8		69.5
		367.0	
60	60.6		436.5
		1,222.5	
70	183.9		1,659.0
		2,392.0	
80	294.5		4,051.0
		3,536.5	
90	412.8		7,587.5
		5,039.0	
100	595.0		12,626.5
		12,626.5	

The results of the survey of this valley were disappointing. Its capacity was very much less than it was thought when the reconnaissance was made. On account of the location of the Sierra Valley Railroad and the town of New Mohawk, or Clio, within the area to be flooded by this reservoir, and because of the value of the other improvements in the valley, it is not considered that this site can be recommended for the location of a storage reservoir in the immediate future.

YUBA RIVER BASIN.

A reconnaissance was made in the watershed of the Yuba River to determine if there were any sites in this watershed suitable for storage reservoirs. No sites of value were discovered. A map of a reservoir site in township 17 north, range 6 east, Mt. Diablo meridian, known as Oregon House Valley, was obtained from the City Engineer of San Francisco. This site was surveyed in connection with the numerous investigations for a domestic water supply for San Francisco, and has a capacity of 90,823 acre-feet.

The following table gives the capacity of the reservoir site with greatest depth of water of 130 feet:

Capacity of Oregon House Valley Reservoir, North Yuba Project.

Contour.	Depth water. Feet.	Area in acres.	Capacity. Acre-feet.
1,480	0	0	0
1,500	20	18.2	182
1,510	30	85.5	700
1,520	40	164.3	1,950
1,530	50	296.8	4,255
1,540	60	460.7	8,042
1,550	70	665.6	13,674
1,570	90	1,097.5	31,305
1,590	110	1,491.5	57,195
1,610	130	1,871.3	90,823

The water supply would have to be obtained from the North Fork of the Yuba River by a diversion canal 9½ miles long, and a tunnel 5½ miles long. It is believed this site would be too expensive for utilization in connection with irrigation.

Twenty-two (22) reservoirs have been constructed in the watershed of the South Fork of the Yuba River. The water is used for mining and power purposes. The capacities of these reservoirs vary from 40 to 21,350 acre-feet. The most important of these were visited to determine if it were possible to increase their capacity by raising the dams. The total capacity of the twenty-two reservoirs is less than 87,000 acre-feet, and it is believed that the amount of storage that could be obtained by increasing the height of these dams would be insignificant. The run-off from the drainage area tributary to some of them is insufficient to fill them in average years. All of the reservoirs are in use except the English reservoir, at which point the dam failed several years ago.

AMERICAN RIVER BASIN.

The watershed of the American River is very precipitous and contains few basins that can be utilized as storage reservoirs. Those that exist are of comparatively small capacity.

View of Folsom Power House on the American River.

The Greenwood reservoir site, located in township 12 north, range 10 east, Mt. Diablo meridian, was surveyed in connection with the Lake Tahoe Project, San Francisco Water Supply Investigation. The water supply for this site was to have been obtained from Lake Tahoe. In order to tap the lake, a tunnel 6 miles long would have been necessary. The capacity of this site is approximately 66,000 acre-feet with a 200-foot dam, and is probably the largest in the American River watershed.

The following table gives its capacity at intervals of 25 feet from 0 up to 200 feet:

Capacity of Greenwood Reservoir, American River.

Contour elevation. Feet.	Elevation of water surface.	Area in acres.	Capacity. acre-feet.
0	0	0	
50	40	43.20	864
75	65	157.94	3,378
100	90	272.64	8,761
125	115	416.39	17,374
150	140	560.12	29,580
175	165	720.55	45,588
200	190	908.52	65,952

RELATION OF STORAGE RESERVOIRS IN SACRAMENTO BASIN TO FLOOD FLOW.

Maps have been obtained of practically all the reservoir sites of economic value for irrigation purposes in the Sacramento basin. There may be other sites of relatively small capacity, which on account of the demand for irrigation water after much of the valley is irrigated and developed, will be of sufficient capacity and value to justify their survey and construction.

The storage basins described in the preceding pages, if constructed, would simplify the drainage problems of the lower Sacramento Valley. The Guenoc reservoir, if constructed, would entirely control the flow from 91 square miles of the watershed of Putah Creek. This area probably has a greater run-off than any equal area in the Sacramento basin.

The Monticello reservoir site is located 4 miles above the point where Putah Creek debouches upon the plain. It is believed that if both of these reservoirs were built the flood flow of Putah Creek could be so controlled that it would seldom exceed 10,000 second-feet.

The construction of Clear Lake and Indian Valley reservoirs would, in a measure, control the flood flow of Cache Creek, if the outlets were regulated with that object in view.

The flood wave of Stony Creek could be effectually controlled by the construction of Mill Site reservoir. Ordinarily reservoirs are allowed to fill with the first rains. The discharge records on Stony Creek show that the flow is many times more than the capacity of this reservoir. The reservoir could have been filled any year since the record began after the first of April. By increasing the outlet capacity and keeping the water low, this reservoir could be used as a regulator of the flood flow through the rainy season until the first of April.

If the Iron Canyon reservoir were built with a large outlet capacity, all ordinary flood waves would be controlled. If built according to specifications given on page 62 it would still have the effect of retarding the passage of the flood crest on account of the large surface afforded, over which the water would be spread and stored before sufficient head was gained on the overflow weir to pass the flood flow.

The Big Valley reservoir of Pit River, if built, could store the entire winter flow from about 4,000 square miles of the watershed tributary to the Sacramento River.

The area of the watershed on the Feather River above reservoir sites which have been surveyed in this basin is 54 per cent of the total drainage area at Oroville, the point where it leaves the foothills. The Big Meadows, Butte Valley, Indian Valley, and Grizzly Valley reservoir sites have sufficient capacity to store, in years of mean rainfall, the entire discharge from 37 per cent of the Feather River watershed.

The Feather River is the largest tributary of the Sacramento River, and its maximum discharge exceeds 100,000 second-feet.

The area of the watershed tributary to the Iron Canyon, Putah Creek, Cache Creek, Stony Creek, Big Meadows, Indian, Butte and Grizzly Valley reservoir sites, is 48 per cent of the total area of the Sacramento basin.

From a study of the available stream flow data it is believed that the Cache Creek, Guenoc, Big Valley, Big Meadows, Butte, Grizzly and Indian Valley reservoir sites have sufficient capacity to hold back the flow from 21 per cent of the watershed of the Sacramento basin during the greatest storms.

Levees for flood protection—In spite of all precautions, crevasses sometimes occur. If a break should occur in the Sacramento levees, after the improvements proposed by the Board of Engineers have been carried out and after the flood basins have been reclaimed and settled, the loss of property might be enormous. There is a possibility of a break being attended with some loss of life. The property loss in one break might be greater than the entire first cost of the reservoirs which have been estimated upon in this report. Because of the intensity and amount of precipitation in the upper Sacramento River basin, its flood waves are great, but are of short duration. On this account the reservoirs will be especially useful in the reducing and retarding of the flood wave crests. It is believed that the additional expense of increasing the outlet capacity and making the reservoirs better adapted to serve the above purpose is justifiable and should be incurred. Inasmuch as levees have not proven universally successful in protecting lands adjacent to rivers from their flood flows, as may be cited in the case of the Mississippi River, it seems desirable to emphasize the important relation that storage bears to the reclamation of overflow lands in the Sacramento Valley.

It seems probable that a complete solution of this problem would require a system of storage reservoirs to control the flood discharge of the main river and its tributaries and thus remove the peaks of flood waves, and add a large safety factor to the stability of the levees.

It is also probable that a material portion of the first cost of such reservoirs might be saved in reducing the cost of levees and other flood-restraining works. It will be seen then how important it is that irrigation of the high valley lands and the reclamation of overflow lands be regarded as a coördinate work. The estimates and plans in this report must be considered as tentative only and likely to change when more detailed surveys are made and more stream flow data accumulated.

Effect of storage reservoirs on the flood of 1907—The rate of flow into the Sacramento Valley during the flood of 1907 largely exceeded the estimate previously used as a basis for computing the proper width of channel to safely carry the flood waters. The width of channel sufficient to carry that flow is so great that the question at once arises whether there is any other solution or partial solution of the problem. Is it not possible to protect the Sacramento Valley by levees against overflow without enormous expenditure for levee structures and a permanent loss of a strip of the best land in the valley, 1,500 to 2,500 feet in width along the river?

Very high flood stages last only a few days. If the rate of flow on these days could be reduced 20 per cent the necessary channel width might be reduced by the same percentage. The storage of a comparatively small proportion of the total flood volume will permit a material reduction in channel width through the whole length of the valley. At once the question is asked: Why cannot the reservoirs proposed for storing water for irrigation purposes be used so as to store the peak of floods and thus partly solve this problem?

Any acceptable scheme for improvement of flood conditions in this basin must include within its purview the interests of irrigation, navigation, and power. The use of a reservoir for flood and for industrial purposes conflicts to some extent. For industrial use it is necessary that the reservoir be full at the end of the rainy season; for flood protection it is necessary that it remain empty until the danger of a flood is past. As already stated, a flood may occur any time from January to the latter part of March. For effective flood protection, the reservoir should remain empty until the middle of March. Many reservoirs would have little value for industrial purposes unless the water were admitted to them early in the rainy season.

It will be instructive to determine the effect that storage in the proposed reservoirs would have had on the maximum rate of flow of some of the streams of the Sacramento basin during the four-day period, March 18 to 21, 1907. The following table gives the capacity of each proposed reservoir, the volume of flood flow for storage on each of these four days and the total.

Flow of streams for period March 18–21, 1907.

Stream and place.	Drainage sq. mi.	Date, March, 1907.					Per cent of flow.
		18th.	19th.	20th.	21st.	Mean 18-21.	
Sacramento—Red Bluff	9,300	118,000	165,000	196,000	132,000	153,000	30.7
Feather—Oroville	3,640	114,000	179,000	120,000	92,500	134,000	27.0
Yuba—Smartsville	1,220	85,000	100,000	60,000	27,000	68,000	13.6
Bear—Van Trent	263	11,400	25,800	13,500	5,620	14,100	2.8
American—Fair Oaks	1,910	70,000	105,000	86,000	72,500	83,400	16.8
Stony—Fruto	601	26,500	20,000	13,500	6,820	16,700	3.4
Cache—Yolo	1,230	13,700	19,200	12,700	7,240	13,400	2.7
Putah—Winters	805	20,200	25,400	8,900	4,850	14,800	3.0
Metered area	18,970	488,800	639,400	510,600	348,530	497,000	100
Unmetered Mountain and Foothills	3,380					*76,000	
Total	22,850					573,000	
Sacramento Valley	4,250					25,000	
Sacramento Basin	27,100					598,400	

*Run-off assumed as 50 per cent of precipitation March 17th to 20th.

It will be noted that some of these reservoirs would have been only partially filled by the flow of March 18th to 21st while others would have stored but a small percentage of the run-off that passed them. A study of this table will show that the four reservoirs in Stony Creek Basin would have stored the run-off from 457 square miles, or 76 per cent of the area above the gaging station, and would have reduced the maximum daily flow from 26,500 to 7,000 cubic feet per second. The two reservoirs in Cache Creek basin would have stored the flow from 609 square miles, or 50 per cent of the area above the gaging station, and would have reduced the maximum daily flow from 19,200 to 14,300 cubic feet per second. The two reservoirs in Putah Creek basin would have stored the flow from 751 square miles, or 92 per cent of the area above the gaging station, and would have reduced the maximum daily flow from 25,400 to 800 cubic feet per second.

The seven reservoirs in Feather River basin would have stored the flow from about 1,515 square miles, or 42 per cent of the area above the gaging station at Oroville, leaving 2,125 square miles uncontrolled. Of this uncontrolled area, 651 square miles are above Mohawk Valley reservoir, and 1,474 square miles are below the reservoirs and above the gaging station. This storage would have reduced the daily flow at Oroville as follows: from 144,000 to 114,000 cubic feet per second on March 18th; from 179,000 to 143,000 cubic feet per second on March 19th; from 120,000 to 90,000 cubic feet per second on March 20th; and from 92,500 to 69,500 cubic feet per second on March 21st.

Big Valley reservoir on Pit River would have stored the entire flow at that place and reduced the daily flow of the Sacramento River at Red Bluff about 25,000 cubic feet per second. The storage at Iron Canyon, together with that on Pit River, would have reduced the greatest daily flow of the Sacramento River at Red Bluff from 196,000 to 143,000 cubic feet per second.

The combined effect on the flow of the Sacramento of operating all of these reservoirs would have been to reduce the maximum daily flow at Red Bluff about 53,000 cubic feet per second; just below the mouth of Stony Creek, 63,000 cubic feet per second; and just below the mouth of Feather River, 92,000 second-feet.

It will be seen that as controllers of floods, some of these reservoirs do not present a very satisfactory showing on account of their location. Less than one fifth of their total capacity would have been in use on the four days of greatest flow and only 8 per cent of the combined capacity of the two largest (Big Valley and Big Meadows reservoirs) would have been in use on these days. If these reservoirs were at a lower altitude and had a larger per cent of the drainage basin above them, they would be more effective in flood control. Nevertheless, they would have very materially reduced the maximum rate of flow.

It will be instructive to indicate from the available records the probabilities of filling these reservoirs after the peak of floods has passed. A seven-year record on Stony Creek shows that the reservoirs in this basin will store the entire normal flow for February or March, but cannot be filled after March. A five-year record on Cache Creek shows that the reservoirs in this basin will store almost the entire normal flow for January and February combined, or for March alone, and can be filled ordinarily in April and May. From a four-year record on Putah Creek, it is found that the reservoirs in its basin will store almost the total normal flow for January and February, or for March, but that they cannot be filled after March. A six-year record on Feather River indicates that the reservoirs in its basin will reduce the normal flow about half in March or April, and that they can be

A view showing the gates controlling the flow of water from the Owens River into the Los Angeles Aqueduct.

filled after April and May. The reservoirs on the Sacramento and Pit rivers will reduce the normal flow in March about one third. With all the reservoirs in operation, the indications are that the normal flow into the Sacramento Valley would be reduced about 44 per cent in March.

Open Canal of the Los Angeles Aqueduct some distance below the Owens River Valley.

MINIMUM RATES OF FLOW IN SACRAMENTO BASIN.

The years 1898, 1899, 1903, 1905 and 1908 have been years of comparatively small run-off in some or all parts of the Sacramento basin. The annual run-off for the years 1898 and 1899 are the smallest of record in the fifteen-year record at Red Bluff. The mean for these two years is only 70 per cent of the fifteen-year mean at this place.

The smallest monthly flow, however, at this place occurred in 1903 when the annual flow was 14 per cent greater than the fifteen-year mean.

The year 1908 was a very dry one in all parts of this basin, the flow being the smallest of record at several of the gaging stations.

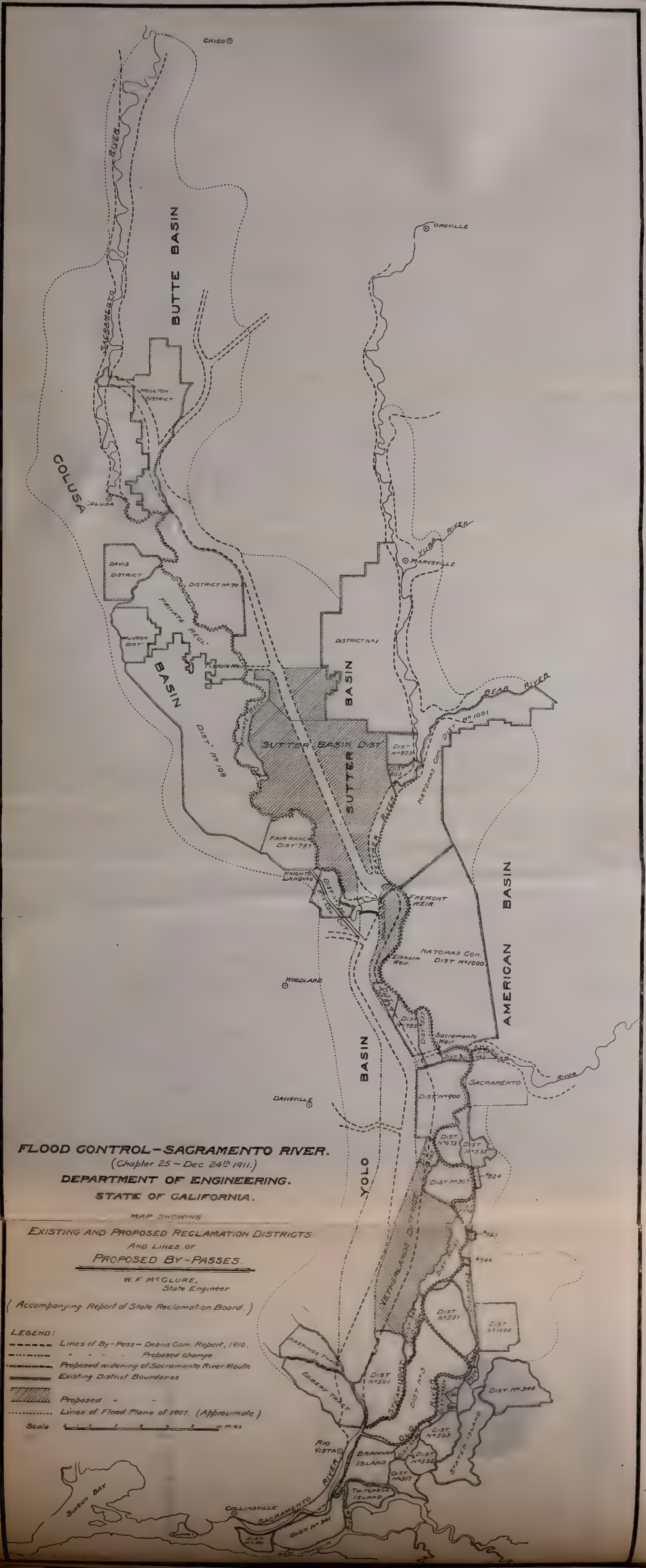
The following table gives the least mean rate of flow of record for fourteen consecutive days and for three consecutive months at the several gaging stations. Generally the three-month period includes the fourteen-day period, but not always:

Minimum rates of flow in Sacramento Basin.

Name and place.	Drainage. Sq. mi.	Date. Month.	Year.	Flow in sec.-feet. 3 months.	14 days.
Upper Sacramento River near Red Bluff	9,300	Sept.,	1903	4,250	3,980
McCloud River near Gregory	608	Sept.,	1903	1,313	1,280
Pit River near Bieber	2,950	Sept.,	1905	9	1
Feather River near Oroville	3,640	Oct.,	1902	1,343	1,170
Feather River near Big Bend	1,940	Aug.,	1908	1,062	980
Feather River below Prattville	506	Dec.,	1908	628	578
Feather, North Fork, above Prattville	245	Dec.,	1905	332	320
Hamilton Branch near Prattville	230	Dec.,	1905	178	168
Butt Creek in Butte Valley	73	Aug.,	1908	24	23
Indian Creek, Crescent Mills	740	Aug.,	1908	32	14
Yuba River near Smartsville	1,220	Oct.,	1908	400	320
Bear River near Sheridan	263	Nov.,	1905	23	15
American River near Fair Oaks	1,910	Sept.,	1908	*160	115
Stony Creek near Fruto	601	Aug.,	1902	4	2
Little Stony Creek near Lodega	102	Oct.,	1908	0	0
Cache Creek near Lower Lake	500	Oct.,	1908	11	6
Cache Creek near Yolo	1,230	Sept.,	1908	0	0
Putah Creek near Winter	805	Sept.,	1908	4	3.5
Cottonwood Creek near Ono	52	Aug.,	1908	19	3.2

*In 1905.

It is seen that the minimum flow of all these streams except the Upper Sacramento and McCloud rivers is small. Storage or auxiliary power is necessary to utilize much of the annual flow.



FLOOD CONTROL–SACRAMENTO RIVER.
(Chapter 25 – Dec 24th 1911.)
DEPARTMENT OF ENGINEERING.
STATE OF CALIFORNIA.

MAP SHOWING
EXISTING AND PROPOSED RECLAMATION DISTRICTS
AND LINES OF
PROPOSED BY-PASSES.

W. F. McCLURE,
State Engineer

(Accompanying Report of State Reclamation Board.)

REPORT

OF THE

Reclamation Board of California

1912

MEMBERS OF BOARD

W. T. ELLIS, Jr., of Marysville PETER COOK, of Rio Vista
V. S. McCLATCHY, of Sacramento

FRIEND WM. RICHARDSON, SUPERINTENDENT OF STATE PRINTING
SACRAMENTO, CALIFORNIA
1913

Report of the Reclamation Board of California.

SACRAMENTO, CAL., December 20, 1912.

To His Excellency HIRAM W. JOHNSON, *Governor of California.*

The Reclamation Board of California submits herewith for your consideration a report of its proceedings since its organization and up to December 1, 1912.

The Board was created by act of the special session of the Legislature of 1911, Chapter 25, under suggestion offered by your Excellency in the call for such extra session and in the opening message to the members thereof.

This act formally adopts, on behalf of the State, the plan of flood control for the Sacramento River recommended by the California Débris Commission in its report of June 10, 1910, and approved by the War Department, as fully set out in House Document No. 81 first session, sixty-second Congress. This act gives power and authority to the Reclamation Board to pass upon all plans of reclamation on or along the Sacramento and Feather rivers or in the basins adjacent thereto, whether projected by individuals, associations, corporations or districts, with the evident purpose of having all such plans conform to the system of flood control adopted by the State. Reclamation work may not be done in these basins save with the approval of the Board.

WHY SAN JOAQUIN NOT INCLUDED.

The act, as originally drawn, gave the Board similar authority over reclamation along the San Joaquin River and in the basins adjacent thereto; but it was pointed out that there was at the time neither any Government report nor any plan for flood control of the San Joaquin, nor surveys upon which such a report could be predicated; that the riparian and other interests along the San Joaquin would naturally object to being committed in advance to a plan, not yet outlined, which might or might not be satisfactory to them; and that it would be easy, after an adaquate plan for the control of the San Joaquin had been evolved and adopted by the Government, to place the stream and its basins under jurisdiction of the Reclamation Board, if such course seemed advisable. It was agreed, therefore, not to include the San Joaquin in the original act.

PURPOSE OF FLOOD CONTROL PLAN.

The California Débris Commission plan for flood control aims to maintain in the Sacramento and Feather rivers a constant flow of water for the purposes of navigation and thus to force scouring and deepening of the streams to establish a permanent flood plane beyond which the streams cannot rise; and to so care for flood waters that levees will not be overtopped or broken, with the consequent loss to life and property and to navigation.

These objects are to be accomplished generally by confining the streams within fixed limits, behind strong permanent levees, and by carrying all excess flood waters, after the established flood plane has been reached, out of the rivers and into main by-passes, running through the troughs of the Sutter and Yolo basins to tide water. The mouth of the Sacramento River is to be considerably enlarged to permit of free discharge of flood waters into the bay, and weirs constructed and subsidiary by-passes provided and dredging done wherever necessary.

ESTIMATED COST OF PLAN.

The engineer's estimate of the total cost of the work and purchase of the necessary rights of way, as indicated in the report, is $33,000,000, and the recommendation is made that the cost be apportioned, one third to the Federal Government for the benefits received by navigation, and two-thirds to the State. It has been the general understanding that one-half of the State's portion would be assessed, on some plan not yet formulated, to the property owners benefited by reclamation. California, in adopting this plan, has made more liberal provision for sharing in the expense of river improvements than has any other state in the Union.

Appropriations thus far made for work under this plan by California and the Federal Government have been in equal shares, but such appropriations have been for preliminary work and for dredging at the mouth of the river, which is properly and primarily in the interests of navigation. The appropriations, too, were made under the general plan outlined in the 1907 report, and prior to the 1910 report, which contained the elaboration of the plan and the suggestion as to the State paying two thirds of the expense.

As will be shown, much of the work included in the $33,000,000 estimate, of direct interest to reclamation, has been done and is being done, while more is projected, by private capital under direction of the Reclamation Board and entirely without expense to the State or Nation.

It is not improbable that, in view of the changed conditions and under a modified plan of procedure, the work necessary to be ultimately done by the Federal Government and the State may not exceed in cost one half of the entire amount of $33,000,000; and it will probably be work so clearly necessary in the interests of navigation and not directly associated with reclamation that Congress can find no good reason for objecting to appropriations therefor.

THE STATE'S ACTION OPPORTUNE.

The creation of the Reclamation Board was just in time to save the flood control plan. Already reclamation of individual districts had extended 5,000 to 6,000 feet into the path of the Yolo by-pass as tentatively laid down in the Débris Commission plan, so that even now the line of that by-pass must be moved that much to the west for a large portion of its length or an extraordinary expense incurred in the condemnation of high-priced reclaimed lands and the building of new levees. Preparations had been made by a private syndicate to reclaim a body of 7,500 acres blocking the entire width of that by-pass for several miles; and that and similar obstructive projects have been, under the Board's authority, abandoned or so modified as to conform to and materially assist the general plan of flood control.

THREATENED DESTRUCTION OF THE VALLEY.

Under the conditions obtaining up to the date of passage of this act owners of property anywhere in the basin were at liberty to reclaim practically as they pleased, with such slight restrictions as the various boards of supervisors, acting independently of each other, might see fit to impose. Such restrictions rarely considered the interests of any save immediate neighbors. In consequence, each small reclamation unit, instead of acting along a general plan which would secure safety for all, was intent only on saving itself. It really levied *against* its neighbors, and looked for its own safety through their destruction. The flood plane steadily rose because increased reclamation confined the waters more to the river channels, and there were no by-passes to rapidly carry off floods and no width of channel at the river's mouth sufficient to discharge them. Levees steadily increased in height, adding additional burden to the land. The inevitable end, with a river channel at and below Sacramento City with capacity of but 100,000 second-feet, and record floods of 1907 which, if in crest at the same time, would have sent 600,000 second-feet down to tide-water, must be annual destruction or overtopping of levees with enormous consequent damage, and perpetual danger for all interests in the valley. No possible levees could prevent this result.

CHANGES MADE BY NEW LAW.

The good effect of the act approving the flood control plan and creating the Reclamation Board, with power to force all private interests to conform to a plan which will insure general safety, is already apparent in the eagerness of private capital to embark on reclamation enterprises which previously would not have been considered. That attitude is made still more evident by capital's willingness to do the work at its own expense, even to the extent of dedicating to by-pass uses, without compensation, lands owned by it. Land owners can well afford to adopt this policy since the permanent value created for lands thus leveed can readily stand as expense the actual loss of the acreage included in by-passes. As a matter of fact, however, none of the lands in the by-passes will be, under the perfected plan, subject to conditions worse than are now imposed by nature, while most of such lands will be materially increased in value. The water will flow over them only after the floods have risen beyond the stage fixed by the height of weirs, and it will rapidly pass off, so that most of the by-pass lands can be with safety put in summer crops.

ORGANIZATION AND JURISDICTION OF THE BOARD.

Under the opinion of the State Attorney General of October 14, 1912, a copy of which is hereto appended as Exhibit A, the jurisdiction of the Board extends only to reclamation plans adopted or work commenced later than the day on which the act creating the Board went into effect, to wit, March 23, 1912.

The Board, consisting of W. T. Ellis, Jr., of Marysville; Peter Cook, of Rio Vista; and V. S. McClatchy, of Sacramento, perfected organization on May 25, 1912, by the election of V. S. McClatchy as chairman, and W. T. Ellis, Jr., as secretary.

Since the date named it has held regular meetings on the Tuesday preceding the twenty-fifth of each month, and adjourned and special meetings when necessary. Its rules provide that all cases shall go over one month for hearing and that publication of the application and the date of hearing shall be printed meanwhile in a newspaper of general circulation published within the county in which the proposed district is located or in which the reclamation work is to be done.

ENGINEERING ADVISERS.

The official adviser of the Board in engineering problems is the State Engineer. In harmony, however, with the intent of the act, and to maintain between officials of the United States and of the State necessary and thorough concert of action in matters of flood control in which both have interest and over which both have jurisdiction, Major S. A. Cheney, U. S. A., executive officer of the California Débris Commission, was asked and has consented to advise the Board on engineering questions pertaining to the flood control plan. He has at all times given the Board the benefit of his suggestions and advice, has been present at its meetings, and has used freely the machinery and facilities of his office in assisting the State Engineer and this Board in the preparation of data and the solution of problems incidental to the direction of private reclamation so that it might not interfere with flood control.

COÖPERATION OF CIVIC BODIES AND CITIZENS.

The Board has had, also, the active coöperation of the Flood Control Committee of the Sacramento Chamber of Commerce, which first brought the matter of united action between the State and Federal Government to the attention of your Excellency and the State Legislature, and which has since actively assisted in carrying out the intent of the act. The Board has been aided, also, by the State Flood Control Committee of three which worked at Washington to obtain formal adoption of the flood control plan, such committee consisting of the commissioner appointed by your Excellency, and one representative each from the Chambers of Commerce of San Francisco and Sacramento.

From civic organizations throughout the valley, from reclamation districts, actual and prospective, and from riparian owners have been received cordial endorsement and coöperation.

In short, all interests, National and State, public and private, navigation and reclamation, are to-day united in furthering an accepted plan for control of the Sacramento River, a condition which never before existed.

EFFECTS OF OPENING BY-PASS.

Some fears expressed by interests in Yolo County as to the effect upon lands in the Yolo basin of the opening at this time of the East Sacramento by-pass at Bryte's Bend, as contemplated by Sacramento City, were readily dissolved by statements made by State Engineer W. F. McClure and Major S. A. Cheney, U. S. A., of the Débris Commission, in response to inquiries of the Flood Control Committee. These statements are appended hereto as Exhibits B and C.

An opinion as to legal points involved in this same question was secured by the Flood Control Committee from A. L. Shinn, its secretary. A copy thereof appears in Exhibit D.

AWAITING CROSS SECTIONS OF THE BASIN.

Since the organization of the Board, six months ago, there have been presented to it for approval plans for a number of reclamation projects in the Yolo and Sutter basins, the final disposition of which must wait until cross sections of the basin, now being prepared in the offices of the State Engineer and the California Débris Commission, can be completed, so as to furnish accurate data for the proper location of by-passes. The work for the Sutter basin is practically complete, and that for the Yolo basin, it is thought, will be finished some time in January. Reference is made in this connection to a report which the State Engineer, under direction of the act, is preparing for consideration of your Excellency and the Legislature.

HOW PRIVATE CAPITAL IS AIDING.

The most remarkable and satisfactory progress has been made in the way of assistance to the project by syndicates and new districts, which find it to their interests to do much of the work of construction contemplated in the Government's plan in order to speedily reclaim their own lands and secure a revenue therefrom.

In this way, under applications already formally presented, private capital proposes to do the following work, running into many millions of dollars cost, all such work being included within that figured upon by the Débris Commission in its total estimate of $33,000,000.

1. The formation of two new districts, situated respectively at the

lower and upper end of the Yolo basin. The west levees of these two districts, together with the west levees of intervening districts already constructed, would form a continuous east levee for the Yolo basin by-pass from its discharge point at the southern end to the upper end at the mouth of the Feather River. To take advantage of this condition, the by-pass would have to be located in places from 1,500 to 5,000 feet further west than indicated on the original plan. The cross sections now being made of the basin will determine whether this change can be made without serious disadvantage.

As soon as the Yolo by-pass is officially located there are private interests which have announced themselves, in Board hearings, as prepared to go on with reclamation on the west side of that by-pass and incidentally construct, at their own expense, sections of the west levee of such by-pass.

2. The formation of one or two districts which will reclaim all the unreclaimed portion of the Sutter basin lying between the Feather and Sacramento rivers and extending from the Tisdale weir to the junction of the two rivers, about 75,000 acres. Incidentally there will be constructed without any expense to the Government that entire section of the Sutter basin by-pass, and necessary levees on the two rivers.

3. The city of Sacramento has already voted over half a million dollar bonds to secure the necessary land and construct the subsidiary by-pass at Bryte's Bend, connecting the Sacramento River with the main Yolo by-pass and intended particularly to care for the excess storm waters of the American River.

4. Reclamation districts and owners of unreclaimed lands in Colusa and Yolo counties, aggregating 94,500 acres, have united to construct, at their own expense, if the approval of the Reclamation Board is secured, the Knight's Landing Ridge cut, a canal about eight miles long, which is intended, under the general plan, to drain the Colusa basin into the Yolo basin by-pass.

5. Prior to the organization of the Reclamation Board there was projected and is now in course of construction by the Natomas Consolidated and other districts, in conformity with the flood control plan, levee work on the Sacramento, Feather and Bear rivers, amounting to several million dollars.

All of the work above referred to is part of the flood control plan. If this work be completed it will leave undone comparatively little of the river levee and main by-pass work contemplated by the plan. There will be, in the Yolo basin, the west levee of the by-pass still to be constructed, and in the Sutter basin both sides of the by-pass above the Tisdale weir to Butte Slough, only a short distance. There seems to be no reason to doubt that private capital will find it to its interest in time to complete these portions of the work without expense to the Government.

THE GOVERNMENT'S SHARE OF WORK.

There would be left, to be attended to by the Government and the State under the existing arrangement, sharing the expense equally, the opening of the mouth of the Sacramento River from Rio Vista to Collinsville, now under way; the construction of the Fremont and other weirs; dredging and similar work—all so clearly necessary in the interests of navigation that there should be no questions raised on the part of Congress.

The cost of opening the mouth of the river is estimated at $8,000,000 or $9,000,000. Of this amount $800,000 is now on hand (coming half from the State and half from Congress), and two big dredges, costing about $400,000, are now being assembled. These machines will commence operating in March of next year, and can probably be operated a year or more with the balance of the appropriation. The necessary rights of way have already been secured (with the exception of several small pieces now in process of condemnation), and the cost, $250,000, met by private subscriptions and by appropriations from the city of Sacramento and the State. The work at the mouth of the river will, therefore, go on at the same time as by-pass work to be done at private or municipal expense.

It is probable that the remaining work to be done by the State and the Federal Government under an adjustment of the nature suggested—that is, for construction of weirs, dredging and general river work—will amount to $6,000,000 or $7,000,000. The entire expense thus involved to California under this plan would be $7,000,000 or $8,000,000, and a similar amount to the Federal Government. The entire control plan, also, would reach completion much more rapidly than if Congress had to pay a share of the entire $33,000,000 involved, and make annual appropriations therefor.

POSSIBILITY OF CONGRESSIONAL ACTION.

Congress has not yet formally adopted the flood control plan, though it has made joint appropriations with the State for carrying out portions of the plan at the mouth of the river. To this extent it may be considered committed, as well as by the obligation apparently recognized by the Débris Commission Act of 1893, and the partnership which has since existed with the State in providing funds to evolve a plan to restore the river's navigability.

The plan was presented to the last Congress for consideration, and had hearings before the Rivers and Harbors Committee of the House and the Senate Committee on Commerce. As a large project, new to the committees, and in the face of an appropriation already exhausted, it was passed without recommendation, though its merit was conceded and the obligations of the Federal Government made plain. At this session it is hoped favorable consideration may be had, as the problem presents now a much more favorable aspect, and the Rivers and Harbors· Committee has already referred the Débris Commission's report back to the Board of Engineers for review and a statement of existing conditions. In this way there can be placed before Congress the facts which appear in this report, and which would seem to justify favorable action.

LACK OF FACILITIES.

The Board has been somewhat handicapped in the performance of important duties by lack of facilities. The act creating the Board carried with it no appropriation, save that provided for engineering work to be done by the State Engineer. The traveling expenses of the members of the Board in attending meetings and in viewing projects submitted for approval, as well as the cost of office stationery, minute book, etc., have been paid by the members themselves. For a meeting place in which to hold the hearings of petitioners and those interested in the various projects, there has been used each month such room in the Capitol buliding as the Superintendent at the time could assign. During the legislative session that difficulty will be increased. A stenographic report of the hearings should perhaps be made, but no records of proceedings can be maintained save what appears in the brief minutes. The records in connection with cases before the Board are becoming voluminous, and were for a time kept by the Chairman at his private office, there being no room in the State Engineer's office. They are now kept in a committee room desk assigned by the Capitol Superintendent, but will perhaps have to be moved during the legislative session.

Respectfully submitted.

PETER COOK,
W. T. ELLIS, JR., Secretary.
V. S. McCLATCHY, Chairman.

EXHIBITS.

A. Opinion of Attorney General.
B. State Engineer on Sacramento By-Pass.
C. Maj. S. A. Cheney on Sacramento By-Pass.
D. Opinion of A. L. Shinn on Sacramento By-Pass.

EXHIBIT A.

Opinion of the Attorney General.

SAN FRANCISCO, October 14, 1912.

Hon. W. F. McClure, State Engineer, Sacramento.

DEAR SIR: I have your communication of October 9th, wherein you enquire as to the jurisdiction of the State Reclamation Board to entertain the protest to the approval of certain plans for the reclamation of lands embraced within the boundaries of Reclamation District No. 70. The protest is based mainly upon the ground that if the work is projected in accordance with such plans it will cause material injury to the lands of the protestants.

The act of December 24, 1911 (Stats. 1911, Extra Session, p. 117), which creates the State Reclamation Board, confers upon such Board the power and duty to approve all plans thereafter adopted which include or contemplate both the construction of any levee, embankment, or canal along or near the banks of the Sacramento River or its tributaries or connected therewith, or upon any lands adjacent thereto or within any of the overflow basins thereof."

This act was approved on December 24, 1911, and according to the terms of section 1 of article IV of the Constitution, did not become effective until ninety days after the final adjournment of the extraordinary session of the legislature, which date, I believe, is about March 23, 1912. Any plans adopted by the trustees of the reclamation district prior to such date are free from the operation of the act. All plans proposed thereafter must be first approved by the Reclamation Board before they can be adopted by the trustees of the reclamation district.

I have none of the facts before me which would enable me to advise you definitely as to the duty of the Reclamation Board in this particular case. If the plans were proposed subsequent to the taking effect of the act of December 24, 1911, it is necessary that they be submitted to the State Board for approval and that such approval be had before their adoption by the Board of Trustees of the Reclamation District.

The main purpose of the act apparently is to provide some state control over all reclamation work upon the streams mentioned and thus supervise any local work of reclamation which would interfere with the navigability of the stream or directly or indirectly work injury upon other lands adjacent thereto. No restrictions are placed upon the Board in this respect and its approval or disapproval is left to the sound discretion of its members. The protest is nothing more than notice of anticipated injury and may be considered by the Board along with any other facts which the Board may choose to take into consideration in order to enable it to reach a conclusion as to whether the plans should or should not be approved.

Very truly yours,

U. S. WEBB, Attorney General,
By JOHN T. NOURSE, Deputy.

EXHIBIT B.

State Engineer on Sacramento By-Pass.

SACRAMENTO, September 25, 1912.

Flood Control Committee, Sacramento Chamber of Commerce, Sacramento, Cal.

In the matter of Sacramento by-pass, and answering questions asked by yourself and others under date of September 16th:

First question: "Taking the present levee conditions on the Sacramento River, will the Bryte weir, when installed, increase the water plane in the Yolo basin at any point above that which would exist if the weir should not be installed and no changes in existing levees should be made?"

Answer: "No."

Second question: "If the Bryte weir should not be installed, would the Sacramento River below the weir carry all the flood water that would reach that point, or would breaks occur that would discharge more flood waters into the Yolo basin than would be discharged from the weir?"

Answer: The Sacramento River below the weir would not carry all the flood water that would reach that point, and breaks would undoubtedly occur above that point, which would discharge more flood water into the Yolo basin than will be discharged from the weir when constructed. In other words, the purpose of the weir is that of a regulator.

Third question: "Would any injurious effects upon the land in the Yolo basin be increased by the discharge of the flood water from the Bryte weir at the elevation contemplated?"

Answer: I know of no injurious effects whatever upon the lands of the Yolo basin, which may be increased by the action of the water from the Bryte weir, as proposed to be constructed, as the whole purpose of the construction of the weir is that of regulating in a systematic manner the excess waters of the Sacramento River.

Fourth question: "Taking the natural state of the river without levees as a basis for your opinion, will the Yolo basin be required to carry more water by reason of the Bryte weir than it would have to carry in its natural state, or would the water plane be effected in any way?"

Answer: The Yolo basin would not be required to carry any more water by reason of the Bryte weir than without it; but, on the contrary, the Yolo basin will, upon the completion of the Bryte weir and other improvements of like character proposed by the Débris Commission's report, be, in a measure, relieved of some of the flood water it now carries, because of the deepening of the channel of the Sacramento River, which river will carry considerably more water than it is now doing.

Fifth question: Before the flood plane of the river reaches the projected crest of the Bryte weir, would the Yolo basin be flooded, and to what depth?"

Answer: Yes, the basin would undoubtedly be flooded before a crest of any injurious flood would reach the crest of the Bryte weir; and, as indicated in answers above, the weir itself would be no determining factor in the depth of water accummulated in the basin, as its only purpose is to relieve the channel of the Sacramento River in times of flood.

I am quite surprised that anyone at all familiar with the Sacramento River and the distribution of its waters during flood season should raise any question concerning the construction of any portion of the works proposed by the Débris Commission. As indicated in my answers above, the construction of the weir at Bryte's Bend is an important feature of the whole scheme, a safety valve for the Sacramento River below Sacramento City, affording, as it will, an exit of waters in a systematic manner into the Yolo basin instead of through breaks in levees, as heretofore. If the residents and property owners in the valley will acquaint themselves thoroughly with the project, as outlined in the report of the Débris Commission, they cannot fail, it seems to me, to conclude that, instead of questioning any portion of the works, they should most heartily second every effort in the direction of hastening in every possible manner the consummation of the whole project. Instead of harm coming to the valley through the construction of Bryte weir, it is but the beginning of complete control over the waters which, during present conditions, render the valley practically without value.

W. F. McCLURE,
State Engineer.

EXHIBIT C.

Major S. A. Cheney on Sacramento By-Pass.

SAN FRANCISCO, September 21, 1912.

To Flood Control Committee, Sacramento Chamber of Commerce, Sacramento, Cal.

Subject: Sacramento by-pass and its effect upon the waters of Yolo basin.

Replying to your letter of September 16th, I would make the following answers to the questions asked:

Q. 1. Taking the present levee conditions upon the Sacramento River, will the Bryte weir, when installed, increase the water plane in the Yolo basin at any point, above that which would exist if the weir should not be installed, and no changes in existing levee should be made?

Ans. When the flood reaches a height of about 27.5 on the Weather Bureau gauge at Sacramento, it will begin to discharge over the Bryte weir, the crest of which is planned to be placed at elevation 30.6 U. S. E. D. datum. At this stage of the river the water would be coming over the Elkhorn weir about four feet deep, this weir being at elevation 28.7 U. S. E. D. datum, two feet lower than the proposed weir, the slope of the river accounting for the other two feet. The water would also be coming over through the various breaks in the levees from the Elkhorn district around to district 730 beyond Grays Bend. There are five breaks below Fremont, and one each in Woods Bend and Grays Bend. Yolo basin would, therefore, be flooded from those sources before any water came over the proposed weir above Bryte's Bend. Such water as came over this weir would undoubtedly be added to the water in the Yolo basin, but in the present condition of the banks above and below this point it will not be possible to force the amount of water over this weir that is contemplated in the flood control project.

So the installation of the Bryte's weir at the present time will, if the levees hold below, add but a small prôportion to the total amount of water in Yolo basin. If they do not hold below, the water will not be forced over the weir. Now, the construction of the Bryte's weir is a necessary preliminary to the construction of the Fremont weir, now contemplated in the flood control project, for only when relief for the American River water has been provided at Bryte's can the breaks from the Elkhorn reclamation round to Grays Bend be closed and the Fremont weir installed. The construction of this weir at Fremont will confer a great and general benefit on all the lands in the Yolo basin, and all the reclamation districts fronting thereon, for with its crest at elevation 30 U. S. E. D. datum, which, under average conditions may be considered to correspond to a reading of 21.5 on the Weather Bureau gauge at Sacramento, there would be so many years when there would be no overflow at all into Yolo basin, and the period of such overflow during high water years would be reduced to that time when the stage of the river was above the critical stage, estimated at 21.5 on the Sacramento gauge. The following table shows the number of days that this stage has been exceeded in the last eight years: 1905, 20 days; 1906, 104 days; 1907, 85 days; 1908, none; 1909, 45 days; 1910, 15 days; 1911, 89 days; 1912, none.

From this it appears that the Fremont weir will greatly reduce the ordinary amount of water flowing into Yolo basin. Since the construction of the Bryte weir is a necessary precedent to the closure of the breaks above, and the construction of the Fremont weir, the movement of the city of Sacramento to build the Bryte's weir should be supported by all who are interested in the development of Yolo basin.

Q. 2. If the Bryte weir should not be installed, would the Sacramento River below the weir carry all of the flood water that would reach that point, or would breaks occur that would discharge more flood water in the Yolo basin than would be discharged over the weir?

Ans. During a flood of the magnitude contemplated in the flood control project, it is calculated that the relief afforded by the Bryte's weir will be necessary to hold the water level at the mouth of the American at elevation 35 U. S. E. D. datum, corresponding to about 31.5 on the Weather Bureau gauge. This is two feet above the high water of 1908. There has been a pretty general raising of the levees since 1909, but in several places they have not yet been touched. Now, if the Bryte's weir is not installed the water level would go still higher on such a flood and some of the levees would undoubtedly fall, which would, of course, let more water into Yolo basin than would be discharged over the weir.

Q. 3. What, if any, injurious effects upon the land in the Yolo basin will or can be increased by discharge of the flood water over the Bryte's weir at the elevation contemplated?

Ans. I can think of no injurious effect on the land in Yolo basin due to the discharge of flood water over the proposed weir.

Q. 4. Taking the natural state of the river, without levees, as a basis for your opinion, will the Yolo basin be required to carry more water by reason of the Bryte's weir, than it would have to carry in its natural state, or would the water plane be affected in any way?

Ans. In the natural state of the river, without levees, the river proper carried a smaller proportion of the total flow in flood time than it does now. The aim of the flood control project is to make the river channel carry a still greater proportion of the total flow. Hence, the necessity for the general raising of the river levees. It is expected in the flood contemplated in the project to carry 100,000 second-feet in the river proper past Sacramento. This part of the river has never before carried this amount of water. The Bryte's weir is a safety valve to take off the excess water that cannot be carried in the river channel without endangering the river levees.

Q. 5. Before the flood plane of the river reaches the projected crest of the Bryte's weir, would the Yolo basin be flooded, and to what depth?

Ans. The first part of this question is answered under question 1. It is hardly possible to state to what depth Yolo basin will be filled before the flood plane reaches the crest of the proposed weir, but those familiar with flood conditions may form an idea of the state of affairs from the statement that flow over the weir will begin when the Weather Bureau gauge at Sacramento reaches a reading of 27.5. At such a stage Yolo basin is fully flooded from flow through Elkhorn weir and the breaks above.

(Signed) S. A. CHENEY.

EXHIBIT D.

Opinion of A. L. Shinn on Sacramento By-Pass.

SACRAMENTO, September 27, 1912.

Flood Control Committee, Chamber of Commerce,

GENTLEMEN: Your request for an opinion concerning the legal right of the City of Sacramento to install a by-pass at or near Bryte's Bend is at hand, together with the reports of Major S. A. Cheney, U. S. A., and W. F. McClure, State Engineer.

From these reports it is evident that the material conditions of flood water in the Yolo basin will not be adversely affected by the installation of the by-pass.

As a necessary consequence there can arise no cause of action in favor of persons who will not be injured, and if the reports of the above named engineers are correct no action can be maintained against Sacramento City for constructing the by-pass in the manner contemplated.

Any fears of the result must have arisen from a misunderstanding of the purposes and effect of the by-pass. Another feature of the case arises from the fact that in a state of nature all of the flood waters that rise above the natural banks of the Sacramento River flowed into the basin. Some levees have been constructed which may have limited the overflow of the water to some extent. These levees were made by private parties and reclamation districts, and among such levees are there situated the proposed location of the by-pass.

No persons excepting the owners of these levees have any vested interest therein. The owners can not be compelled to maintain them, and if they do maintain them they have a perfect right to keep them at such height as they choose, so long as they do not change the natural conditions to the detriment of other persons.

The fact that these levees may incidentally have benefited others who did not contribute to their construction does not give such persons any vested right to forever enjoy such benefits, if the owners of the levees see fit to make changes therein for their own advantage.

Outside of the lands required for the location of the by-pass, leading from the river to the trough of the basin, it will not be necessary for the city to consider the effect upon other properties, as they will clearly not be burdened with any more water than nature intended them to bear.

Very truly yours,

A. L. SHINN.

FOURTH BIENNIAL REPORT

OF THE

STATE FORESTER

OF THE

STATE OF CALIFORNIA

FRIEND WM. RICHARDSON, SUPERINTENDENT OF STATE PRINTING
SACRAMENTO, CALIFORNIA
1912

CALIFORNIA STATE BOARD OF FORESTRY.

Hiram W. Johnson	Governor
Frank C. Jordan	Secretary of State
U. S. Webb	Attorney General
G. Morris Homans	State Forester

OFFICE OF STATE FORESTER.

G. Morris Homans	State Forester
Leon G. Johnson	Deputy
Ralph W. Sloss	Assistant

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LETTER OF TRANSMITTAL.

State Forester's Office,
Sacramento, California, December 5, 1912.

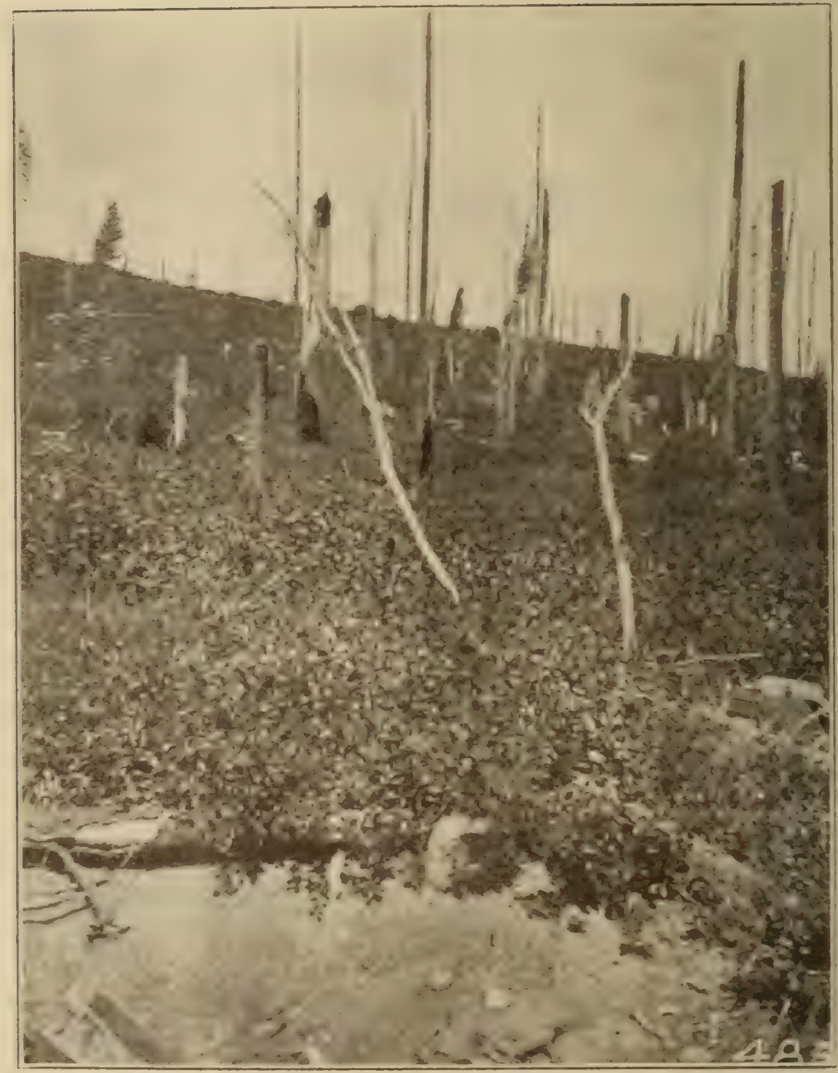
His Excellency,
Hiram W. Johnson,
Governor of California.

Sir:

I have the honor to present herewith a report entitled, "Fourth Biennial Report of the State Forester of the State of California."

Very respectfully,

G. MORRIS HOMANS,
State Forester.



Destructive Lumbering.

Once thickly forested area now a barren waste. Logged too close with no thought for a future crop. Forest fire has completed the destruction and the area is now covered with chaparral which prevents natural reproduction.

INTRODUCTION.

Much of the material contained in this report deals with special forest problems and forest conditions that must be met and solved that a definite and far-sighted state forest policy may eventually be adopted. A limited appropriation has prevented an exhaustive study and investigation, but an effort has been made to show the amount and value of our forest resources; by whom they are owned and how managed; some of the principal forms of waste and damage to which they are subjected; the principles underlying their proper management, and how other states are proceeding with regard to the solution of similar problems.

The National Conservation Congress was held in Indianapolis, October 1 to 4, 1912. Delegates from many states were in attendance, and among them were gentlemen of recognized authority in matters pertaining to the conservation of the natural resources. Some of them were practical exploiters of forest resources; some were scientists who have specialized in various subjects; some were both these, while others were broad-minded, public-spirited citizens interested in the general welfare and betterment of their country. They were all there for a purpose, and here is what they believe in reference to the forests as expressed by the resolutions they adopted:

"Believing that the necessity of preserving our forests and forest industries is so generally realized that it calls only for constructive support along specific lines:

We recommend the work of the Federal Forest Service, and urge our constituent bodies and all citizens to assist upon more adequate appropriations for this work, and to combat any attempt to break down the integrity of our national forest system by reductions in area or transfer to state authority.

Since Federal coöperation under the Weeks law is stimulating better forest protection by the states, and since the appropriation for such coöperative work is nearly exhausted, we urge appropriation by Congress for its continuance.

We recommend that the Federal troops be made systematically available for emergency service in controlling forest fires.

Deploring the lack of uniform state activity in forest work we emphatically urge the crystallization of effort in the lagging states toward securing the creation of forest departments with definite and ample appropriations, in no case of less than $10,000 per annum, to enable the organization of forest fire work, publicity propaganda, surveys of forest resources and general investigations upon which to base the earliest possible development of perfected and liberally financed forest policies.

NEEDED LEGISLATION AND COÖPERATION.

We recommend in all States more liberal appropriation for forest fire prevention, especially for patrol to obviate expenditure for fighting neglected fires, and the expenditure of such effort in the closest possible coöperation with Federal and private protective agencies; and also urge such special legislation and appropriation as may be necessary to stamp out insect and fungous attacks which threaten to spread to other states. We cite for emulation the expenditure by Pennsylvania of $275,000 to combat the chestnut blight, and the large appropriation by Massachusetts to control insect depredation, and urge greater congressional appropriation for similar work by the Bureau of Entomology.

Holding that conservative forest management and reforestation by private owners are very generally discouraged or prevented by our methods of forest taxation, we recommend State legislation to secure the most moderate taxation of forest land consistent with justice of the taxation of the forest crop upon such land only when the crop is harvested and returns revenue wherewith to pay the tax.

We appreciate the increasing support of lumbermen of forestry reforms and suggest particularly to forest owners the study and emulation of the many coöperative patrol associations which are doing extensive and efficient forest fire work and also securing closer relations between private, State and Federal forest agencies. Believing that lumbermen and public have a common object in perpetuating the use of forests, we indorse every means of bringing them together in mutual aid and confidence to this end."

These resolutions are presented for the purpose of showing that forestry propaganda in California is being conducted along constructive and progressive lines.

The chief need in the beginning of a progressive forest policy is the protection of our forests against fire. Some argue that each owner should protect his own holdings while others argue that the State should assume the burden. I incline to the latter opinion. State patrols should be supplemented by private associations of timber owners and by the several counties through their respective boards of supervisors.

The purpose of forestry is to secure the use of our timbered resources in such a way that we ourselves may derive the fullest benefit from them to-day, but also that we may pass them on—unimpaired—so that those who come after us may continue to enjoy the same benefits. To insure this use the forests must be protected. Our forests can be protected from fire under our present laws, provided the legislature makes an appropriation for such a purpose. No change in the existing forest laws is recommended at present.

An effort should be made to secure an appropriation for fire protection and an increase for the support of the board. The latter is needed to conduct special investigations and to continue projects already begun.

If present tendencies remain unchecked, it is apparent that state regulations governing the cutting of timber on private land will be necessary if our forested areas are to produce another crop of merchantable timber. Forestry is not now being practiced on privately owned timbered land. The annual cut is made without reference to the yield, and the future crop is left largely to chance. Further study of the cut-over areas, and of the rate of growth and yield, are necessary before determining what changes can be profitably made by the operators, and what changes are desirable for public good. Legislation, seeking to better present conditions, is likely to be a slow process.

CHAPTER I.

FOREST FIRE.

Fire Report for 1911.

Through the courtesy of the U. S. Forest Service in supplying this office with a list of the fires originating in and near the National Forests, we have been able to complete our record of forest fires for the year 1911.

Fire Season.

The dry season for 1911 commenced no earlier than usual, but continued longer. The first fire occurred in April and the last one in December. The normal fire season is from May 15th to October 15th. August was the worst month, followed by July and November, respectively. Most of the fires occurring between September 1st and December 31st were in the southern portion of the State.

Number and Causes.

There were 1,064 brush, grass and timber fires during the year. Of these, 317 were caused by lightning; 126 were set intentionally; 109 were due to careless campers, and 272 were of unknown origin. The remainder were started in various other ways.

More people go into the woods with each succeeding year, and the chances for starting fires through carelessness will continue to increase. It is right that the use of our forests for recreation be encouraged, but it is essential for the safety of campers, settlers, and property, that proper action be taken to prevent and suppress forest fires.

The following table shows the number and causes of fires during the years 1909, 1910 and 1911:

Causes.	1909.	1910.	1911.
Electric wires	2		
Smoking bees	7		
Blasting	9		4
Hunters	24		
Clearing land	45		
Brush burning		54	66
Engines	64		9
Railroads		17	27
Sawmills		17	17
Tobacco			16
Incendiary	39	70	126
Lightning	79	119	317
Campers	119	122	109
Miscellaneous		76	101
Unknown	250	263	272
Totals	638	738	1,064

Area Burned Over, and Damaged.

The total area burned over by fire was 282,284 acres; 55,182 acres were timbered land and 227,102 acres were brush and grass land. Notwithstanding the fact that the fire season was longer than the average, the total area burned was much less than that of each of the previous two years. This is accounted for largely because of the increased efficiency of the United States Forest Service. More trails and telephone lines have been constructed, enabling the rangers to reach a fire more promptly than heretofore. These improvements make it possible for them to be notified at once of existing fires. A good skeleton of permanent improvement work now exists, and each year's extension lessens the chances for extensive fires.

The actual damage to timber and grazing lands amounted to $128,451.50. There was an unestimated, and perhaps irreparable damage to watersheds.

The following table shows comparative figures for the last three years:

Year.	Area burned over—acres.			Amount of damage.
	Timber.	Open.	Total.	
1909	76,730	279,539	357,269	$100,000 00
1910	216,069	303,394	519,463	628,989 20
1911	55,182	227,102	282,284	128,451 50

During 1911 the Forest Service fought 797 fires at an expense of $63,691.88.

FIRE REPORT FOR 1912.*

Number and Causes.

This office has definite record of 85 fires occurring outside the national forests; these fires were reported by the voluntary firewardens. Of this number 23 were of unknown origin; 14 were caused by hunters and campers (hunters start fires to drive out game and campers usually leave their fires unattended); 14 through careless brush burning; 11 by tobacco and the others were from various causes such as smoking bees, blasting, lightning, sparks from railroad locomotives and from donkey engines not equipped with spark arresters.

Through the courtesy of the Forest Service we are also able to report an additional number of 545 fires occurring within or just outside the national forests, making a total of 630 fires reported so far. These figures are also incomplete since all reports are not in for the entire year.

The total area burned was 92,920 acres. Much of this was timber land and considerable merchantable timber was destroyed.

Of the 85 fires which were reported by the voluntary State firewardens and of which we have definite record, 469 acres of timber land were burned, 30,647 acres of grazing land, and 34,804 acres brush-covered land. Other damage was done to fences, buildings, hay and grain; and, in one instance, several acres of a valuable olive orchard were burned. This direct loss amounted approximately to $12,430. It took 1,908 men, fighting 1,272 hours in all, to extinguish these 85 fires. If these men had been reimbursed for their services at the rate of 25 cents per hour, the State would have had to pay $318.00 for labor. Tools, supplies, and transportation would have been an added cost. The 545 fires reported by the Forest Service cost that institution approximately $20,000.

The first fire of this year was reported in February, and only a few were reported during October. August was the worst month—252 fires occurring during that period.

It will be noticed that a lesser number of fires occurred in 1912 than in 1911. This reduction is very gratifying and praise as well as thanks are due the firewardens who have done so much, and given so much of their time (and often of their personal funds) toward combating fires. The numerous firewardens distributed over the State have had a very beneficial influence. They are all public-spirited citizens and are, for the most part, men of experience and discretion, who, through their earnest efforts, have been instrumental in creating a very favorable sentiment in regard to the careful use of fire in the woods.

Firewardens.

State firewardens serve without compensation for their services and often incur considerable expense. For this they cannot be reimbursed by the State since there is no appropriation for this purpose. It is imperative that the State make an appropriation for fire protection and for paying the necessary expenses incurred when fires do occur. It is unreasonable to ask a volunteer to spend a day, perhaps days, fighting fire, neglecting his personal business, and then not reimburse him for his time and services. At present, this is the deplorable state of affairs. It is right that a man should protect his own property to a reasonable extent, without compensation, the State expects that, but the volunteer who goes out and fights fire does much more. His help keeps the fire from spreading, thereby valuable timber is conserved; he helps to protect the watershed which is so necessary to insure a constant stream flow so that we may have water for irrigation and domestic use, and, in this, the whole State shares the good that results from his efforts, and a system that requires him to give so much is most unfair. Therefore, any sum that the State would spend in this direction would be well and profitably spent.

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*The figures are complete to November 1, 1912, the date this data was compiled.

So far we have been without an appropriation for forest protection, consequently the State Board of Forestry has been prevented from organizing fire patrols and in taking the first steps necessary to establish forestry principles.

Unless our cut-over areas are protected from fire, it will be impossible to interest private capital in reforesting denuded areas. There are over one and a half million acres of logged-over land that need protection if a second crop of timber is to be grown. Thus far, the work of protection has been undertaken by the voluntary firewardens of whom there are about eleven hundred. These officers have the power of peace officers. They may make arrests for violations of the forest laws and can compel the attendance of citizens to fight fires. . Through their efforts several thousand warning notices have been posted along frequented trails and in camping places, and copies of the forest laws have been distributed among campers and given to others who were interested. In this way coöperation has been sought, and, as far as possible, the danger as well as the proper use of fire has been called to the attention of as many as was possible.

Forest fires in California cannot be altogether eliminated since California has long, dry seasons. Lightning will always be a factor and one that cannot be prevented. But the number of fires can be greatly reduced if an efficient fire patrol system were inaugurated. During the next session of the legislature another strong effort will be made to secure a much needed appropriation for this purpose.

Prosecutions.

Forty arrests for violations of the forest laws were made during the year of 1911. In 21 cases fines were imposed and collected; in 3 cases the offenders were acquitted, and 7 cases were dismissed for want of sufficient evidence. In 6 cases, the fines of the guilty offenders, because of various circumstances, were suspended on condition that similar offenses would not again be committed. The intent in causing forest fires to be started, in two cases, was so malicious that the offenders had to choose between paying a fine or serving a jail sentence. They chose the latter. In other instances, where inexcusable carelessness resulted in fires and the accused were without funds, the justices released them on condition that the fines be paid within a reasonable period. A conviction was secured in the remaining case but no fine collected because of old age. Firewardens did splendid work in bringing the cases to trial, and the justices in prosecuting them.

Many of the wardens realize the uselessness of bringing cases in certain localities because of the attitude of the justices of the peace. There seems to be a peculiar attitude, in some parts of the State, toward forest fires. Their danger is not fully appreciated. The laxity with which many cases are prosecuted is largely responsible for the increase of incendiary fires.

The table on page 12 shows the counties in which the forty cases were tried, and their disposition.

For the year 1912, with the exception of the months of November and December, thirty-nine arrests were made for violations of the forest laws. Of this number, twenty-nine cases were successfully prosecuted, convictions secured and the imposed fines collected. In one case, the offender was acquitted; three offenders were released; two dismissed; in two cases, while fines were imposed, a portion of the fines was suspended; and in the case of another offender, although pleading guilty to the offense with which he was charged, the extenuating circumstances were such that he was placed upon probation for six months in lieu of a fine.

This office has information which tends to show that many of the fires reported were of incendiary origin. They started, for the most part, in remote places and by the time a volunteer fire crew could be assembled and reach the scene, no definite clew could be established.

Stockmen and water users are the heaviest losers. It has been demonstrated that the volunteer firewarden system is inadequate to prevent many of the larger fires and to successfully prosecute the offenders. A paid fire patrol, maintained by the State, must be established.

Violations of the forest laws for not providing donkey engines, locomotives, sawmill stacks and traction engines with spark arresters, are numerous. The origin of many fires, that were not formally reported, could be traced to this source. A systematic inspection of such stacks must be provided for.

The table on page 13 gives a list of the prosecutions to date of November 1, 1912.

FIRE PROSECUTIONS FOR CALENDAR YEAR 1911.

Case.	County.	Tried by.	Place of trial.	Fine.	Sentence.	Remarks.
1	Butte	Justice Storey	Sterling City	$10 00		
2	Butte	Justice Storey	Sterling City	10 00		
3	Butte	Justice Storey	Sterling City	10 00		
4	Butte	Justice Storey	Sterling City	10 00		
5	Calaveras	Justice Anderson	Murphys	50 00		
6	Fresno	Justice of Peace	Fresno			Sentence dismissed.
7	Kern	Judge Brown	Maricopa	7 50		
8	Kern	Judge Brown	Maricopa	7 50		
9	Kern	Judge Brown	Maricopa	7 50		
10	Kern	Judge Brown	Maricopa	7 50		
11	Los Angeles	Justice J. Holmes	Los Angeles	30 00	30 days	Served sentence.
12	Los Angeles	Justice Young	Los Angeles	15 00	15 days	Sentence suspended six months.
13	Los Angeles	Judge Glover	Los Angeles	50 00		
14	Los Angeles	Judge Glover	Los Angeles	50 00		
15	Los Angeles	Judge Glover	Los Angeles	50 00		
16	Orange	Justice Fullerton	Orange	50 00		Fine excused old man.
17	Santa Clara	District Attorney Free	Los Gatos	50 00		
18	Santa Clara	District Attorney Free	Los Gatos	50 00		
19	San Diego	Justice Bloom	San Diego	70 00		
20	San Diego	Justice Dodson	San Diego	50 00		No fine imposed—dismissed.
21	San Diego	Justice Wisdom	San Diego	50 00		Suspended sentence.
22	San Diego	Justice Wisdom	San Diego	10 00		
23	San Diego	Justice Wisdom	San Diego	100 00	30 days	Served 30 days in jail.
24	San Diego	Justice Wisdom	San Diego	50 00		Sentence suspended.
25	San Diego	Justice Wisdom	San Diego	50 00		Sentence suspended.
26	San Diego	Justice Burtch	San Diego	50 00		$40 suspended.
27	San Diego	Justice Burtch	San Diego	45 00		$10 collected only.
28	San Diego	Justice Dodson	San Diego	50 00		
29	Shasta					No conviction.
30	San Bernardino					Dismissed—paroled patient from Patton.
31	Sierra					Dismissed—offender paid all costs of fire.
32	Sierra					Dismissed—offender paid all costs of fire.
33	Siskiyou	Justice of Peace	Yreka	50 00		
34	Trinity	Judge Dockery	Weaverville	10 00		
35	Ventura	Judge Knox	Ventura			Acquitted.
36	Ventura	Judge Knox	Ventura	10 00		Suspended.
37	Ventura	Judge Knox	Ventura	10 00		Suspended.
38	Ventura	Judge Knox	Ventura	10 00		Acquitted.
39	Ventura	Judge Knox	Ventura			Acquitted.
40	Los Angeles	Justice of Peace	Los Angeles			Dismissed.

FIRE PROSECUTIONS FOR CALENDAR YEAR 1912, UP TO NOVEMBER.*

Case.	County.	Tried by.	Place of trial.	Fine.	Sentence.	Remarks.
1	Fresno	District Attorney	Fresno			Acquitted.
2	Fresno	Justice Geo. B. Graham	Fresno	$50 00		
3	Fresno	Justice Geo. B. Graham	Fresno	30 00		
4	Los Angeles	Judge Melrose	Tropico	100 00		
5	Los Angeles	Justice Geo. Glover	Azusa	50 00		
6	Los Angeles	Justice Barnes	Los Angeles	25 00		
7	Los Angeles	Judge Dunham	Pasadena	50 00		
8	Los Angeles	Justice of the Peace	Los Angeles	10 00		
9	Los Angeles	Justice of the Peace	Los Angeles	50 00		
10	Los Angeles	Justice of the Peace	Los Angeles	50 00		Leaving camp fire unextinguished.
11	Los Angeles	Justice E. Barnes	Claremont	25 00		
12	Los Angeles	Judge Young	Los Angeles			Released.
13	Los Angeles	Judge Young	Los Angeles			Released.
14	Los Angeles	Justice E. Barnes	Pomona	25 00		
15	Los Angeles	Judge McDonald	Pasadena	125 00		
16	Los Angeles	Judge Melrose	Los Angeles	50 00		Fine remitted.
17	Los Angeles	Justice Geo. E. Glover	Los Angeles	25 00		Failure to comply with summons to fight fire.
18	Los Angeles	Justice Geo. E. Glover	Azusa	25 00		Refusing to fight fire.
19	Los Angeles	Justice Geo. E. Glover	Los Angeles			Refusing to fight fire. Released upon proof of physical disability.
20	Mariposa	Justice John Endean	Coulterville	50 00		
21	Riverside	Justice of the Peace	Banning	25 00		Refusing to fight fire.
22	Riverside	Justice Geo. L. Wing	Banning	50 00		
23	Riverside	Justice of the Peace	Riverside	25 00		Leaving camp fire unextinguished.
24	Riverside	Justice of the Peace	Riverside	25 00		Leaving camp fire unextinguished.
25	San Bernardino	Justice Pittman	San Bernardino	10 00		Leaving camp fire unextinguished.
26	San Bernardino	Justice Pittman	San Bernardino	10 00		Leaving camp fire unextinguished.
27	San Bernardino	Justice Pittman	San Bernardino	10 00		Leaving camp fire unextinguished.
28	San Bernardino	Justice Pittman	San Bernardino	10 00		Leaving camp fire unextinguished.
29	San Bernardino	Justice of the Peace	Redlands	50 00		
30	San Bernardino	Justice of the Peace	Ontario			These three men were fined $50 jointly for the one offense of leaving a camp fire unextinguished.
31	San Bernardino	Justice of the Peace	Ontario	50 00		
32	San Bernardino	Justice of the Peace	Ontario			
33	San Diego	Justice J. F. Kelly	San Diego			Dismissed.
34	San Diego	Justice J. F. Kelly	San Diego			Dismissed.
35	San Diego	Justice J. F. Kelly	San Diego	50 00		$25 of this fine was suspended.
36	San Diego	Justice J. F. Kelly	San Diego	50 00		
37	San Diego	Justice J. F. Kelly	San Diego	50 00		$40 of this fine was suspended.
38	San Diego	Justice J. F. Kelly	San Diego			Pleaded guilty. Was placed on probation for 6 months.
39	Yuba	Justice Fraser	Camptonville	50 00		

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*These figures are necessarily incomplete because all reports are not in for the entire year.

Plate I. Virgin forest.

A typical stand of virgin yellow pine and white fir. This area has been exempt from fire for many years and its density has reached the maximum. The young growth coming in will form the basis for a new crop when the area is logged. A fire would kill all this young growth and do an unestimated damage to the mature trees. Over 5,000,000 acres of virgin timber in California are under private ownership. All of it needs protection.

Protective Associations.

At present three Forest Fire Associations exist in California. They are the Stockmen's Protective Association, the Redwood Fire and Protective Association, and the California Forest Protective Association. The latter two have done but little toward forest fire prevention. They were but recently organized, and it is yet too early to foretell what they will be able to accomplish. On the other hand, the Stockmen's Association has done much and is the strongest of the three associations.

This association was organized on May 15, 1904, by stockmen from Alameda and San Joaquin counties, the object being "to promote the stock and range interests of its members, especially for protection against range fires." The members are assessed one dollar per year and represent 250,000 acres of land. The State Forester coöperates with these associations in every way possible. This association maintains mounted patrolmen during the dry season. These men report regularly to the county firewardens and the State Forester. An efficient system therefore is in vogue and much good is being done.

The Redwood Fire and Protective Association of Fort Bragg is composed of the redwood lumbermen. They have a different problem before them, for the redwood suffers less from fire than other trees. Most of the severe fires of the present time follow lumbering. After the trees are felled the slash and general débris is intentionally fired to facilitate logging. The redwood country is the only region where slash is intentionally fired. The trees are felled, peeled, trimmed, and sawed into logs, then the whole felling area is set on fire. There is a strong sentiment against the use of fire in cleaning up débris, but until some other less wasteful method is demonstrated, the use of fire will be continued. However, the association has done much good in constructing many miles of fire trails in Mendocino County during the past season. This system of fire trails, when completed, will be of great benefit to all owners of timber in that immediate section. All patrolmen in the employ of this association are also state voluntary firewardens. These patrolmen work only during the fire season.

The California Forest Protective Association was organized in March, 1912, by lumbermen representing every section of the State, presumably for the purpose of fire prevention and protection. So far nothing has been done and it will be interesting to note the policies which they may adopt.

County Work.

During the calendar year of 1912 twenty-two counties expended money for forest fire protection amounting to $10,975.07. The amount expended by any one county exceeded $600 in only five cases. Some of the counties coöperated with the U. S. Forest Service and two of them with the Stockmen's Protective Association.

Weeks Law.

Section 2 of the Weeks law authorizes the U. S. Secretary of Agriculture to coöperate with states in protecting forested watersheds of navigable streams from fire. An appropriation of $200,000 was made for this purpose. The law provides that protection must be confined to forested watersheds of navigable streams: the state must have provided by law for a system of forest fire protection; and the Federal expenditure in any state must not exceed, in any fiscal year, the amount appropriated by the state for the same purpose.

The law is carried out by the Forest Service. No state can secure more than $10,000 in any one year. The plan is to assist as many states as possible that the greater educational value may be received. No appropriation having been made for protection, California was unable to avail herself of the provisions of the Weeks law.

Federal Coöperation.

A good framework of protection is already in existence and one that will be most useful to the state when funds are provided.

The federal forest rangers (about 250) serve as voluntary firewardens. The National Forests are patroled, and a few lookout stations have been built. Telephone lines are being extended as rapidly as funds will permit.

During the summer of 1912 the U. S. Post Office Department made provision for lending its support to state officers in the prevention of forest fires. The following order shows in what they are willing to help:

> Order No. 6316.
>
> "*To the Postmaster.*
>
> Sir: The following instructions are promulgated for the guidance of the postal employees concerned:
>
> In accordance with the request of the Secretary of Agriculture, this Department has arranged a plan of coöperation with State and National Forest officers whereby rural and star route carriers shall report forest fires discovered by them along their routes to persons designated by the State and National authorities to receive such intelligence.
>
> The State and National authorities will inform postmasters as to whom the discovery of fires shall be reported, and each rural carrier should be directed to coöperate to the fullest extent with such authorities in the manner agreed upon, namely, that the carrier shall report a fire to the nearest State firewarden or National Forest officer on his route, or if no such officer or warden lives on the route, to arrange through some responsible citizen to have him notified, by telephone, if possible. Star route contractors and carriers are included in the plan of coöperation and should be requested to report the discovery of fires in the same manner as will be done by the rural carriers.
>
> Postmasters in or near National Forests are also directed to report fires to the nearest Forest officer.
>
> Respectfully,
>
> P. V. DeGraw,
> Fourth Assistant Postmaster General."

Rural and star route carriers traverse hundreds of miles of country in the State that is subject to fires. Such assistance will be immensely valuable to district fire rangers and will cost the State nothing. Until paid men are provided for, however, but little advantage can be gained from such generous coöperation.

Organization of Patrol.

The State should be divided into patrol districts; the number depending entirely upon the appropriation available for fire prevention and suppression. A fire ranger will be in charge of each district who shall devote his entire time to patrol, extinguishing such fires as do occur, posting warning notices and in securing the coöperation of those whose business or pleasure takes them into forest or brush-covered regions. Logged-off areas covered with inflammable material or other sources of danger need to be inspected with the view of determining whether they constitute a menace as defined by present laws.

A general educational campaign against fires is most essential. Many of the fires can be prevented by exercising a little more care and, in time, these will probably occur but seldom, or not at all.

Each ranger will have definite headquarters. He will keep a diary and report briefly, at the end of each week, a summary of the work accomplished. In addition, reports, on special forms, will be rendered for each fire attended, showing the area and extent, damage, time required to bring it under control, cost, and probable cause. Similar reports will be rendered for each arrest made for violations of the forest laws. As other duties will permit tentative plans will be prepared by each ranger showing the approximate location of lookout stations and telephone lines that need to be built to insure more thorough and efficient protection. Such work must proceed slowly in order to avoid an unwise choice of location.

The necessity for forests is so generally recognized, and the need for their protection is so well known, that a further discussion is probably unnecessary. There remains the importance of providing funds with which to protect the forest resources of our State.

CHAPTER II.

OWNERSHIP OF TIMBER LANDS.

In order that the people may the more readily determine what state policy shall be adopted to make our forests serve the greater uses to which they can be put, a study of the amount and ownership of timber lands was made during the winter of 1911 and 1912. A type map has been issued showing, approximately, the occurrence of merchantable forests, logged off and chaparral areas. This year, however, each area of 320 acres and over was secured by legal subdivision, county and owner. The data presented in this chapter show the amount of timber and cut-over land that are assessed as such. Agents working under the direction of the State Forester transferred the holdings to our plats as they appeared in each county assessor's office. The discrepancy between the assessed acreage in private ownership and the estimated acreage is accounted for chiefly by the listing, for the purposes of taxation, of much timber land as grazing land. The county assessors will undoubtedly be grateful to have their attention called to such cases of which any one may have special knowledge.

A map showing these holdings could not be published by this department because of limited appropriations, so the data was loaned to the Conservation Commission, which will issue it as a part of their report. The title is "Timbered Area, State of California." The map shows all timber holdings in the State aggregating 20,000 acres or more to the holding.

There are 5,823,440 acres (holdings of 320 acres and over) assessed as timber or cut-over lands. Of this amount, 4,737,554 acres are timbered, and 1,085,886 acres are cut-over land.

The ten largest holdings comprise 2,448,094 acres, or approximately 42 per cent of all the privately owned timber and cut-over land in the State. They are as follows: Central Pacific Railroad (S. P.), 921,311 acres; T. B. Walker and associates, 673,665 acres; McCloud River Lumber Company, 232,063 acres; Diamond Match Company, 159,499 acres; Hammond Lumber Company, 94,760 acres; Union Lumber Company, 80,350 acres; L. E. White Lumber Company, 79,540 acres; Weed Lumber Company, 71,458 acres; C. A. Smith, 69,768 acres, and Sierra Nevada Wood and Lumber Company, 65,680 acres. The holdings under 2,000 acres are too numerous to publish, but they are summarized in the following table:

Summary of timber holdings.

Size of holdings.	Number of holdings.	Amount in acres.		Total.
		Timber.	Cut-over.	
Below 1,000 acres	1,087	460,093	79,071	539,164
1,000 to 2,000 acres	196	195,687	59,321	255,008
2,000 acres and over	286	4,081,794	947,494	5,029,288
Grand total		4,737,554	1,085,886	5,823,440

The table showing the owners, amounts, location by county, of timber and cut-over holdings aggregating 2,000 acres and over to the holding, is omitted because of an insufficient appropriation for printing.

Active lumbering operations are being conducted on many of the properties, and many of the others, including some of the larger ones, are being held for various reasons. The forested area of the State is being depleted very rapidly, and far more timber is being removed annually than is being produced. It is estimated that nearly 5,000,000 acres of once heavily timbered land has, since logging, given way to chaparral growth, and because of cutting without reference to the future, and repeated ground fires, and can not now reproduce another merchantable crop without resorting to artificial reforestation. Under present conditions there is nothing to prevent the continuance of similar methods resulting in similar deplorable conditions.

I am of the opinion that wise and far-sighted State regulations governing the cutting of timber on private lands are of public necessity, and that the lumber industry should be regulated for public good just as other "big business" has been regulated when it was shown that by so doing public interests were the better served as well as preserved. Such measures should accomplish two definite purposes; one being to provide for a continuous timber supply, and the other to conserve water. By accomplishing the latter other beneficial results will follow.

Just how to accomplish desired results is difficult to determine. There is every reason to believe that the state will, eventually, require that timber lands shall be under conservative forest management, and that it will go far toward defining what constitutes such management. Before such a plan can be formulated it is essential that systematic investigations shall continue in matters pertaining to the rate of growth and yield of our commercial forests. So far, students of forestry seem to be unanimous in the opinion that state legislation should be confined for the present to forest protection, taxation, acquirement of state forests, and to education and scientific investigations.

PLATE II. Area logged under Government regulations.

Representative cut-over land in a National Forest. Note the excellent condition of the area. The slash has been carefully piled and burned. Thrifty seed trees of the most valuable species have been left to reseed the area. Nothing under eighteen inches in diameter was cut, so another valuable timber crop is assured.

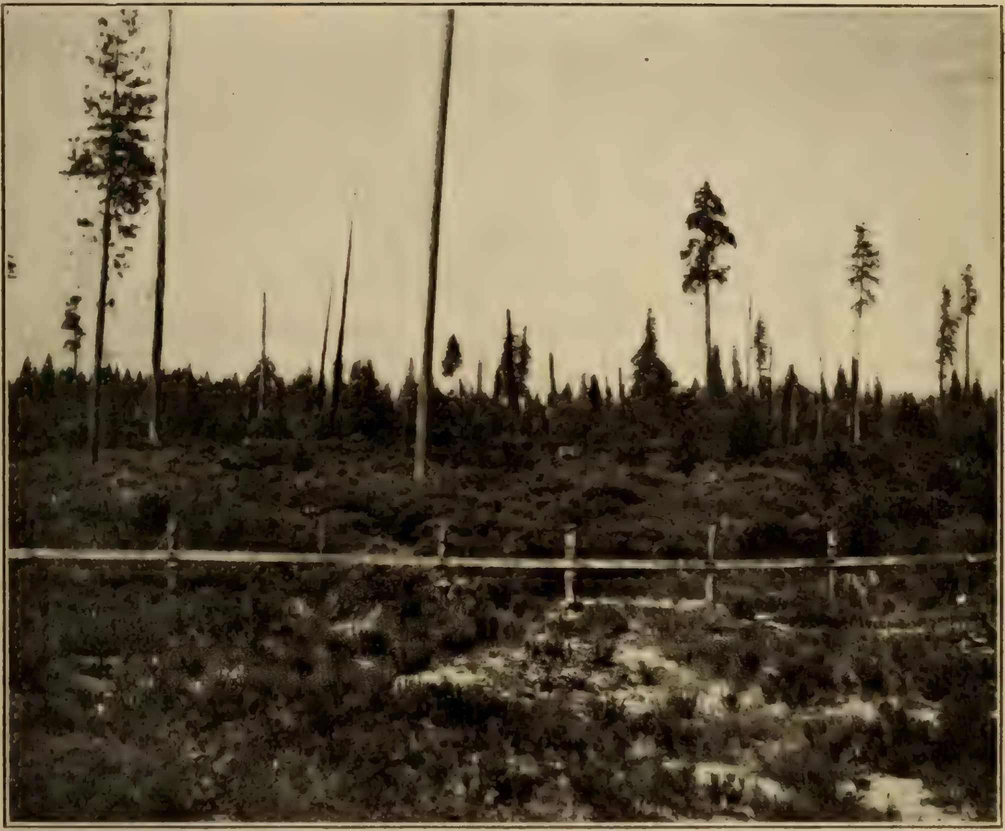

PLATE III. Area logged without restrictions.

Over a million acres of once virgin timber have been "skinned" like the area shown in the picture. Future yield has been left to chance. Such land as this is unfit for anything except the growing of timber. Destructive lumbering has changed the area into a barren waste that is already being claimed by chaparral. A fire would destroy the few remaining trees and give the chaparral permanent possession. With adequate protection these lands will eventually bear another crop of trees.

CHAPTER III.

CUT-OVER LAND STUDY.

Introduction.

With the exhaustion of timber in the New England States, the lumbermen were forced to seek other localities for their source of supply and the region around the Great Lakes became the next great scene of their activities. While operations here were still in full sway, the completion of the transcontinental railroads brought the great belt of timber on the Pacific coast within the reach of the eastern markets. Some of the more enterprising lumbermen, taking heed of the steadily increasing demand for lumber, turned their attention to the vast forest resources of California and began acquiring timber land.

At the time that California was admitted as a State, almost all of the timber land was in the possession of the Federal Government. A few of the original Spanish grants contained some timber land. The early settlers regarded the timber land as being of little value and sought for precious minerals or good ranch sites. As a result, when the lumbermen from the Lake States turned their attention to California, they found that practically the entire timbered area was still in the public domain, and they lost no time in using every available means to gain possession.

Claims were acquired under the Homestead Law, the Timber and Stone Act, the Swamp Land Act, and the mining laws. The public land laws were violated to such an extent and so openly that they accomplished little else than ridding the people of their natural heritage. Timber frauds were perpetrated more and more openly. Dummy locators were imported by the score from eastern cities. Some of them could scarcely understand English, yet they were "located" on choice timber claims with the agreement that the locators should gain possession upon the issuance of patent. The dummy seldom resided on the land—that was unnecessary. From $100 to $300 was the prevailing price paid for the title to such claims.

Most of the choice timber lands were appropriated before the Government awoke to the fact that urgent action was necessary if it wished to preserve any of its timber. On March 3, 1891, a law was passed which enabled the President to withdraw timber lands from the public domain, and set them aside as forest reserves. At the present time there are 27,557,393 acres of land in the National Forests of California. Of this amount 7,786,306 acres are timber land and 4,317,904 acres are woodlands.* This area has a stand of approximately 114.4† billion feet B. M. of timber worth on the stump about 228 million dollars.

There are about 8½ million acres of privately owned timber land. They contain 248.1† billion feet B. M., and they are worth more than 500 million dollars.

The purpose of this study is to bring before the people of California the exact conditions prevailing on our cut-over lands. The redwood lands present a problem peculiar to themselves and have not been considered in this study.

The cut-over lands must furnish the future timber supply. At the present rate of cutting our supply of standing timber will be exhausted in a few generations. The growing of a crop of timber is essentially a long time investment, and under the present system of taxation, one that the lumberman does not feel able to undertake. The extremely close cutting now being practiced by most companies is probably due in part to our system of taxation. In another part of the report, the evils of this system are fully discussed, and it is shown how private reforestation is discouraged.

A large proportion of this cut-over land is unfit for anything except the growing of timber, but if a future stand is to be produced, it must eventually fall to the State to undertake the work.

One of the most important factors in the work of reforestation is fire protection. The results of this study show conclusively that much of the cut-over land will reforest itself naturally from a very few seed trees if fire is excluded. In the investigation that was carried on, particular attention was paid to (1) Fire protection systems or lack of protection; (2) Unnecessary waste in logging; (3) Damage to the watersheds; (4) The condition in which the lands were left after cutting, and (5) What was being done with the lands after logging.

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*Figures compiled by the U. S. Forest Service.

†"The Lumber Industry," Bureau of Corporations, 1911.

A preliminary investigation was made in the winter of 1911-12 to determine the area and ownership of the timbered and cut-over lands of the State. In securing this total, all holdings of over 320 acres were considered. It was found that in all there are 4,737,554 acres of timbered land and 1,085,886 acres of cut-over land in private ownership. Excluding the redwood lands, there remains approximately 3,600,000 acres of pine timber land and 825,000 acres of pine cut-over lands. Inadequate appropriations would not permit of a detailed study of all this area, but ten lumber companies were selected, representing a total of 552,303 acres of which 365,545 acres are timbered land and 186,758 acres are cut-over land. A careful examination was made on these holdings and the conditions found may safely be said to be representative of those prevailing throughout almost all of our pine lands.

Forest Composition.

The timbered areas studied are representative of the commercial forests extending from the Oregon boundary, south through the Sierra Mountains to the southern extremity of their natural range. They necessarily vary in composition, density of stand and quality of timber. Yellow and sugar pines predominate and are the more valuable species. They occur scatteringly, in association with other species on some areas, and form pure stands on others. South of Mount Shasta yellow pine gives way to sugar pine, Douglas fir, white fir and incense cedar, which, together produce a mixed stand, varying in the proportion of species according to topographical, soil and moisture conditions. Jeffrey pine makes its appearance on the higher elevations from Sierra County south to Fresno County.

Douglas fir occurs most extensively in the north where it often predominates on the north and east slopes, while the bigtree is confined to the southern region.

OCCURRENCE OF SPECIES.

Yellow pine (*Pinus ponderosa* Lawson).

Yellow pine occurs throughout the entire area, either in pure stands or in mixture with other species. It occurs on all soils and on slopes of all inclinations and aspects. However, it is not found in great abundance on the north slopes, but does best on the benches and gentle slopes on the west slopes of the Sierra. In its best growth it reaches a maximum diameter of six to seven feet and a maximum height of 175 to 200 feet. Its bole is cylindrical, with a slight taper and is usually clear for about one half its length. It bears seed annually, but best seed years occur every three to five years. The seed has a high percentage of germination and the seedlings will grow wherever there is sufficient light.

Sugar pine (*Pinus lambertiana* Dougl.).

Sugar pine was never found growing in pure stands, but always in mixture with some other species. It occurs usually at the higher elevations and was not noted below 3,000 feet. At the lower elevations it was found chiefly in mixture with yellow pine and incense cedar. At the higher elevations, white fir and yellow pine were its chief associates and in the south it was also found in mixture with the big trees. It was found on a variety of soils, but made its best growth in cool, moist situations on north and east slopes and in cañons and ravines. In its best growth it reaches a maximum diameter of 6 to 7 feet and a maximum height of 160 to 180 feet. A little seed is produced locally each year, but good seed years are irregular, generally from four to seven years apart.

Jeffrey pine (*Pinus jeffreyi* "Oreg. Com.").

Jeffrey pine is similar in size and appearance to the western yellow pine. It occurs commonly between the upper altitudes of western yellow pine and of white fir, with no sharp line between its range and the ranges of these trees. The best commercial growth is made between 5,000 and 6,500 feet elevation, on well-drained, loose, sandy soil, with abundant moisture. It was found occasionally in nearly pure stands and often predominating in mixture, where it associates chiefly with western yellow pine, lodgepole pine, sugar pine, white and red firs, and incense cedar.

Douglas fir (*Pseudotsuga taxifolia* (Poir.) Britt).

Douglas fir was found chiefly in association with yellow pine, sugar pine, white fir, and incense cedar. It occurs on all slopes, but seems to prefer the sheltered slopes and cañons to the more exposed situations. It was noted in almost pure stands on the steep north exposures in the Castle Creek watershed, Shasta County. In this State it attains a maximum diameter of 4 to 6 feet and a maximum height of 125 to 150 feet. From north to south, the per cent of Douglas fir decreases, and very little was found in the southern part of the area examined. It grows on a variety of soils, but demands considerable soil moisture and humidity to make a good growth. It produces seed every year, and especially good seed years occur at intervals of about three years.

White fir (*Abies concolor* (Gord.) Parry).

White fir was noted in every tract that was examined. It occurred on a variety of soils, but appeared to prefer the moist situations, and made its best growth on rich, moist loam. It is a large tree, often attaining a diameter of 4 to 5 feet and a height of 150 feet in the most favorable situations. It is usually found in mixture with yellow pine, incense cedar, sugar pine, and Douglas fir. In the southern part of the State it was noted in mixture with the big trees and sugar pine. Except in dense stands, it does not clear itself over one third to one half its length, and in many instances its lower branches are found clinging in a dry mass around the trunk. It is a good seeder and produces some seed every year. Good seed years occur every two or three years. The seed will germinate in almost any kind of seed bed and this fact renders it aggressive for reproduction on cut-over lands.

Incense cedar (*Libocedrus decurrens* Torrey).

Incense cedar was never found in pure stands, but usually occurred as a subordinate tree in mixture with other species. In the northern part of the State, it was found forming a small part of an otherwise pure stand of yellow pine. It was also found in mixture with yellow pine, sugar pine, Douglas and white fir. It grows on a variety of soils, and while it prefers cool, moist soils, it will grow on very dry situations. It has a rapidly tapering trunk and seldom reaches a height of over 100 feet. The maximum diameter noted was about 4 feet. Considerable seed is borne locally each year, but especially good seed trees occur every two or three years.

Tolerance.

By tolerance is meant the ability to endure shade. A tolerant specie is one capable of enduring more or less heavy shade, and an intolerant specie is one that is unable to endure shade. Successful reproduction depends not only on a proper distribution of seed, but also on the conditions for germination and for the development of the seedlings. In order to fully understand what constitutes the proper conditions, it is necessary to know which species are tolerant and which are intolerant.

The criteria used in judging the tolerance of a specie are its ability to endure shade, its method of branching in close stands, and its habits of retaining living branches. A tolerant species usually had heavy foliage with living branches, in dense stands, extending well down the bole, while an intolerant species in a dense stand has a clean bole with a small crown.

Sugar pine.

This specie will stand considerable shade for the first ten years, after which it requires a direct light. As it approaches maturity, it becomes very intolerant, even more so than the yellow pine. It prunes itself well, especially in dense stands.

Yellow pine.

The yellow pine is intolerant throughout life. In the seedling stage it will endure a certain amount of shade, and the young trees are often found in dense thickets. After they reach an age of from ten to twenty years, they thin out rapidly and the trees over 20 feet high demand light.

Jeffrey pine.

Jeffrey pine is fairly tolerant when young, ranking between yellow and sugar pine. Its seedlings and saplings make a fair growth under partial shade. In later life it becomes as intolerant of shade as western yellow pine.

Douglas fir.

Douglas fir is moderately tolerant throughout its life. In the seedling stage it appears to demand a partial shade but it becomes less tolerant as it approaches maturity.

White fir.

This species is very tolerant, more so than any of the other species studied. Owing to its great tolerance, it cleans itself poorly, and retains its lower branches even in dense stands.

Incense cedar.

This species is next to white fir in tolerance. It is found in the seedling stage under dense shade, but it requires more light as it grows older.

Reproduction.

The seedlings of the sugar pine were found in greatest abundance on well-drained sandy, black loam areas where there was a considerable amount of humus. The seeds scatter in bunches near the old trees. Trees under 20 inches in diameter do not produce much seed. It is not a prolific seeder. Some seed is produced locally each year, but seedling counts made from thickets indicate that good seed years occur from four to seven years apart.

The yellow pine seeds annually, but the best seed years occur every three to five years. The seedlings are usually found in openings or down slopes and ravines where the wind may have blown the seed. They are found on all soils, but appear to prefer a well-drained, fresh soil. The seed does not carry far in dense stands, but in open forests it is scattered about 500 feet in the direction of the prevailing wind.

PLATE IV. A menace to reproduction.

Débris such as this constitutes a grave fire menace. A fire on this area would extend to live timber before it could be extinguished. The few remaining trees would be destroyed and the area would become a permanent waste. Several hundred thousand acres in this State are in a dangerous condition because the slash has been left as shown in this picture. The Government requires all slash on the National Forests to be piled and burned.

Douglas fir is nearly as prolific a seeder as yellow pine. Considerable seed is produced locally each year, and good seed years occur every three or four years. A fairly moist soil, free from duff, appears to be best for germination.

White fir is also a good seeder. Some seed is produced each year, but good seed years occur at intervals of two or three years. The character of the seed bed appears to be of little importance and the seed will germinate under almost any condition. However, some soil moisture is apparently desirable.

Partial shade is favorable to the early seedling stage of the incense cedar. Reproduction is good, both under old trees and in the open places. It is a prolific seeder, and all trees, no matter of what quality, appear to produce seed. Some seed is borne locally each year and good seed years occur every two or three years.

Rate of Growth.

Determining the rate of growth of our forest trees is a matter of great importance and one that cannot be overestimated. It is this factor, more than any other, that finally determines to what extent forestry can be made a profitable business proposition for the private owner. It must be remembered that the lumbermen have no investment in the actual growing of the present stand of timber now owned and being cut by them. To accurately determine the rate of growth a very large number of trees of each species must be measured. The diameters inside and outside the bark must be taken, the height measured and the age of the tree determined by ring counts. From these figures curves can be made that will show the average rate of growth for each species. It is obvious that the accuracy of these curves would depend upon the number of trees measured.

Owing to the lack of funds it was impossible to obtain sufficient data to construct any accurate curves, but a number of trees were measured in different localities to serve as an indication of the rate of growth of the present stands. It must be borne in mind that as trees of relatively small diameters only were taken, they were to some extent suppressed by the larger trees and their growth was much slower than it would be in cut-over land where the trees would receive full light. But the results obtained are sufficient to prove clearly that at least two things are necessary to make the growing of a second crop of timber an attractive business proposition.

First—The present method of taxation must be changed in such a way that the private owner can afford to hold the cut-over land for a term of years without financial returns.

Second—The reproduction on the cut-over lands must be effectively protected from fire in order to produce a future crop that will pay returns to the investor.

WEED LUMBER COMPANY.

The Weed Lumber Company owns 71,460 acres of forest land in Siskiyou County. Of this, 20,000 acres have already been cut over. The mills and factories are located at Weed, and the logs are hauled in from the camps by the California and Northeastern branch of the Southern Pacific Railroad. These camps are located from 25 to 45 miles northeast of Weed.

The elevation of the holdings ranges from 3,500 feet at Weed to 6,000 feet in the vicinity of Camp 1. For the most part the slopes are very gentle, and at the three main camps the logging is done with Michigan wheels. Camp 4 is the only camp where the land is being logged with donkeys. It is located on a small creek and the slopes are steep. The area logged with donkeys is relatively small, as only about 700,000 feet is cut per month, while the total cut from the four camps averages about 10,000,000 feet per month.

Type.

The pure yellow pine type prevails throughout the holdings. Incense cedar (*Libocedrus decurrens*) is found to a small extent in association with the yellow pine. Along the streams and on the flats near the streams Douglas fir (*Pseudotsuga taxifolia*) and white fir (*Abies concolor*) enter into the type in association with the yellow pine.

The stand as a whole is open and park-like, and the trees are short, with considerable taper, and do not clear themselves well. The stand will average from about 15,000 to 20,000 board feet per acre.

Fire.

No serious fires have occurred in this locality in recent years. A few small fires have been set by the donkey engines, but they have been extinguished before any damage was done. In earlier times practically the entire area was swept by two serious fires, one of which occurred thirty-eight or forty years ago and the other from sixty to sixty-two years ago. Nearly all of the mature trees are more or less scarred at the base as a result of these fires, and in many cases the fire scar is so deep that the lower section of the tree cannot be used. Many trees were entirely killed.

There are several reasons why there have been no bad fires of recent years. One is the open character of the timber, which makes fire easy to control. Another is that the company has adopted the policy of piling and burning its slash, this greatly reducing the fire danger. Unburned slash left scattered over the ground constitutes a very grave fire menace to the remaining trees and to the nearby uncut areas, but the danger of fire on cut-over land is reduced to a negligible quantity where the slash has been carefully piled and burned.

Still another reason for the absence of serious fires is the fact that the company is very careful. All fires are extinguished as soon as discovered, irrespective of their size or whether they appear dangerous.

A fairly good system of protection against fire has been adopted. The logging engines burn oil and the donkey engines are equipped with spark arresters. In addition to these spark arresters, an assortment of shovels and axes are always kept near the donkeys, and if by some accident a fire is set, it is promptly extinguished. The superintendent of the woods and the steward of the camps are constantly riding between camps and report any fires they may discover. The company's cruisers may also be classed as fire guards, because their work carries them throughout the entire holdings. The superintendent of the woods and one of the cruisers are state firewardens, having authority to call out the men at any time to fight fire.

A very complete system of fire protection has been established by the company for its mills and factories at Weed. The roofs of the buildings are equipped with sprinklers, and the interiors are equipped with the automatic sprinkling system. Two wire screens act as spark arresters on the burner. Fire hydrants are stationed at intervals throughout the grounds and a complete system of alarms has been arranged. A watch tower, equipped with telephone and a searchlight, has also been built on a nearby hill in order to observe fires at night.

Although the protection system in the woods is fairly good, it should be made more complete. This could be done very easily with only a relatively small outlay. The slash should be more carefully and more completely burned. Two men whose duties should be purely patrol and extinguishing fires should be hired by the company during the dry season. Conscientious men could be secured for about $50 each per month and expenses. Since the company maintains a store and keeps a great number of horses, their food could be secured at wholesale prices, and horses could be kept very cheaply. The total cost to the company should not exceed $160 per month. The dangerous season in this locality covers only from three to four months, making the total cost per annum not more than $640, or approximately nine tenths of 1 cent per acre. With such a system the company would be insured against a repetition of the fire which occurred about forty years ago, completely destroying hundreds of thousands of feet of timber and killing countless numbers of young trees, which to-day would have been ready for the market.

Forest Cover.

The forest cover found on the holdings of this company comprise the following species:

Manzanita, buckthorn, sagebrush, mountain mahogany, willow, deer brush, gooseberry, wild rose, Oregon grape, alder, aspen, and squaw-carpet.

Buckthorn was found only in the old cut-over land near Weed. Manzanita was found scattered over most of the area, but only in a few places did it make a dense growth. Except in the few areas where the chaparral growth was exceptionally dense, reproduction was not retarded to any marked extent. Sagebrush was found only in the extremely dry situations. Willow, aspen, and cottonwood were found in dense thickets along the banks of Antelope and Butte creeks. The wild rose and gooseberry were also found in the moister situations. Mountain mahogany was found more frequently on the dry slopes and benches.

Ground Cover.

The ground cover is fairly good in both the virgin and the uncut areas. In the virgin stand it consists mostly of a layer of needles and squaw-carpet varying from one to four inches in thickness. It is decomposing well, especially in the moister situations, making a very good seed bed. The ground cover was found to be best in the moist flats along the streams.

In the cut-over land, except in that portion which has been logged with donkeys, there is sufficient ground cover to make a good seed bed.

Logging.

Yellow pine forms almost the entire cut made by the company. This is not due to discrimination against other species, but to the fact that yellow pine occurs in pure or nearly pure stands in this locality. Douglas fir, incense cedar and white fir are cut when good trees are found, but they make up only a small per cent of the total cut.

An approximate minimum diameter limit of about twelve inches has been established by this company for all species. Some parts of the area have been cut over a second time for ties, and trees have been taken to a minimum diameter of about 8 inches. On an average from three to five trees of 12 inches or over in diameter have been left to the acre on the cut-over area. Many of the trees are poorly formed, but on the whole little damage was sustained by them when the area was logged. A great deal of damage, however, was done to trees under four inches in diameter. Very little attention was paid to the reproduction in felling and many trees were felled in and skidded over thick clumps of young seedlings, destroying a large percentage of them.

With a little care, the method of logging pursued by this company should do little or no damage to the trees left standing. The trees are felled by a crew of two men. After being bucked into logs, they are bunched in groups of from one to six logs, depending on their size. These bunches are hauled over skid roads to the landing by Michigan wheels. At the landing they are loaded onto the cars by a steam loader, and from here they are hauled to the main line of the California and Northeastern railroad by the logging engine.

The next crop on the cut-over area will undoubtedly be chiefly yellow pine, notwithstanding the fact that too few seed trees have been left. This is due to the fact that the virgin stand was composed of nearly pure yellow pine, and it is the only species near enough to re-seed the area.

The company should pay more attention to the reproduction when felling the trees and skidding the logs. A little care along this line would incur no expense and would leave the area in good shape to produce a second crop which in time would equal the virgin stand. More seed trees should also be left to re-seed the areas where there is no reproduction at present.

Waste in Logging.

The company is pursuing a policy of close utilization and comparatively little is being wasted. The tops are being taken to a small diameter and used in the company's box factory.

In general, the chief waste is in the high stumps and in the broken tops. The average height of the stumps in the recent cuttings made by this company is about 2.7 feet. There is no reason why this should not be reduced to a height of one foot. It has been demonstrated on government sales that this is entirely practicable and that the sawyers soon become accustomed to sawing in the new position. At first glance this waste may seem insignificant, but it may be easily demonstrated that it soon runs into the thousands of board feet.

The accompanying table represents a total of one acre of the recent cuttings on this tract. Thirty-one trees were cut from this acre. If the stumps had been cut to a height of twelve inches, the volume saved on this one acre would have been as follows:

TABLE NO. 1.

Stump.	Diameter at top in inches.	Total height in feet.	Height above one foot.	Volume saved cubic feet.
1	29	2.5	1.5	6.9
2	16	2.3	1.3	1.8
3	26	2.5	1.5	5.5
4	31	2.8	1.8	9.5
5	29	2.6	1.6	7.3
6	26	2.6	1.6	5.9
7	28	2.7	1.7	7.3
8	31	2.7	1.7	9.0
9	24	2.7	1.7	5.3
10	30	3.0	2.0	9.8
11	32	2.7	1.7	9.6
12	37	3.0	2.0	15.1
13	23	2.7	1.7	4.9
14	26	2.9	1.9	7.0
15	34	3.0	2.0	12.9
16	31	2.8	1.8	9.5
17	34	2.9	1.9	12.2
18	22	2.9	1.9	5.0
19	22	3.0	2.0	5.2
20	20	2.9	1.9	4.1
21	24	2.8	1.8	5.7
22	23	3.1	2.1	6.1
23	19	3.1	2.1	4.1
24	19	2.9	1.9	3.7
25	26	3.0	2.0	7.4
26	36	3.1	2.1	15.1
27	30	3.0	2.0	9.8
28	29	2.7	1.7	7.8
29	41	2.6	1.6	14.7
30	35	3.0	2.0	13.6
31	28	2.6	1.6	6.8
Total volume saved (cubic feet)				248.6

Thus 248.6 cubic feet or approximately 1,492 board feet would have been saved on one acre by cutting to this lower height. On one section, which represents about one month's cut by this company, the total unnecessary waste from high stumps was 640 times 1,492 board feet, or 954,880 board feet.

The broken tops were caused largely by carelessness in felling and much of this waste could easily be remedied.

That the waste in logging may be shown more clearly, sample plots of one fourth acre were chosen on areas representative of average conditions. The diameter and height of each stump were measured and tabulated by species. Unused tops were calipered at the butt, and their total lengths were measured in addition to the possible merchantable length to a point six inches in diameter.

The following table shows the result of such measurements for each plot:

WASTE IN LOGGING.

TABLE No. 2.

Plot No. 1. ¼ acre. (Camp 2.)

Stumps.			Unused tops.		Unused merchantable section.		Trees 6 inches and over in diameter left standing.		Condition.
Species.	Diameter outside bark (inches).	Height (feet).	Total length of top (feet).	Diameter outside bark at butt end (inches).	Length to 6 inch diameter (feet).	Diameter outside bark at butt end (inches).	Species.	Diameter breast high (inches).	
Yellow pine	29	2.5	26.0	14	Top forked and crooked.		Yellow pine	13	Alive and healthy.
Yellow pine	16	2.3	15.0	9	8	9			
Yellow pine	26	2.5	25.5	13	6	13			
Yellow pine	31	2.8	42.6	23	Top very punky at heart—spike top.				
Yellow pine	29	2.6	24.6	13	Top crooked—no value.				
Yellow pine	26	2.6	19.0	13	6	13			
Yellow pine	28	2.7	20.0	9	Top crooked and forked.				

Plot No. 2. ¼ acre. (Camp 3.)

Stumps.			Unused tops.		Unused merchantable section.		Trees 6 inches and over in diameter left standing.		Condition.
Species.	Diameter outside bark (inches).	Height (feet).	Total length of top (feet).	Diameter outside bark at butt end (inches).	Length to 6 inch diameter (feet).	Diameter outside bark at butt end (inches).	Species.	Diameter breast high (inches).	
Yellow pine	31	2.7	20.0	14	Top crooked—no value.		Yellow pine	11	Alive and healthy.
Yellow pine	24	2.7	26.0	14	4	14	Yellow pine	17	Alive; forked; no value.
Yellow pine	30	3.0	19.5	16	Top crooked and broken.				
Yellow pine	32	2.7	27.5	14	Top crooked and broken.				
Yellow pine	37	3.0	31.0	17	Top smashed.				
Yellow pine	23	2.7	Broken.	11	Beyond measuring.				
Yellow pine	26	2.9	Top smashed; impossible to measure.						
Yellow pine	34	3.0	36.0	12	Top broken.				
Yellow pine	31	2.8	21.5	11	Top too small and limby.				
Yellow pine	34	2.9	24.0	10	Of no value.				

Plot No. 3. ¼ acre. (Camp 3.)

Yellow pine	22	2.9	20.0	14	Top smashed.		Yellow pine	16	Alive; scraggy top.
Yellow pine	22	3.0	17.0	13	12	13	Yellow pine	16	Alive; scraggy top.
Yellow pine	20	2.9	Top burned; impossible to measure.				Yellow pine	11	Alive; not healthy.
Yellow pine	24	2.8	28.0	8	Top too small to measure		Yellow pine	12	Alive; fair condition.
Yellow pine	23	3.1	26.0	12	*6	12	Yellow pine	14	Alive; fair condition.
Yellow pine	19	3.1	25.0	13	6	13	Yellow pine	11	Dead.
Yellow pine	19	2.9	25.3	10	12	10	Yellow pine	6	Dead.
Yellow pine	26	3.0	18.0	8	Top crooked—no value.		Yellow pine	7	Alive; suppressed.
							Yellow pine	4	Dead.
							Yellow pine	13	Alive; healthy.

*Spike top.

Plot No. 4. ¼ acre. (Camp 4.)

Yellow pine	36	3.1	39.0	13	Broken by felling.		Yellow pine	14	Alive, healthy, but bruised by cable.
Yellow pine	30	3.0	33.0	14	Broken.*		Yellow pine	14	A stub, broken off by logging.
Yellow pine	29	2.7	Top badly broken—impossible to measure.						
Yellow pine	41	2.6	29.2	11	Too small.				
Yellow pine	35	3.0	36.0	18	Limby; 12-ft. log could have been taken.				
Yellow pine	28	2.6	38.0	13	Broken by felling.				

*Broken 2 feet above last cut; rest of top too small.

Disposal of Slash.

No disposal was made of slashings on the old cut-over lands. Tops were left on the ground with branches unlopped, forming a constant invitation to destructive fires. Fortunately, no bad fires broke out, and the slash is now in an advanced stage of decomposition and may not be considered a serious menace.

In recent years the company has adopted the policy of piling and burning their slash every fall. The disposal is not complete as the branches are not lopped and the débris is only partially piled, but the fire danger is greatly lessened. No attention is paid to reproduction when piling and a vast amount of damage is done. Sometimes the slash is piled in the open; sometimes up against such trees as are left, and often times in thick clumps of reproduction which are entirely destroyed when the piles are burned. Such damage is unnecessary and should be avoided. Slash should be piled away from reproduction and burned clean.

Insects.

Trees in this locality have not been greatly damaged by insects. A few young yellow pine were found to be infected with a specie of scale but none were found on mature trees. The scale was nowhere found in great numbers and the damage was not noticeable. The pine beetle was also noticed in this locality.

Second Growth.

The species comprising the second growth are yellow pine, incense cedar, Douglas fir, and white fir. Yellow pine occurs in nearly pure stands in the dry situations. Incense cedar enters into these stands to some extent. Douglas fir and white fir occur in association with yellow pine near streams and wherever there is considerable soil moisture.

As a whole, the ground cover is very fair. A good layer of humus has been formed by pine needles and herbaceous plants on all but the driest situations. Moisture conditions are poor in most of the tract, but there appears to be enough soil moisture present to support a fair stand of yellow pine.

Considerable chaparral has come up in the old cuttings, but the growth is seldom dense. It has served more as an usher growth and has not greatly retarded reproduction. In some localities, where no seed trees have been left, chaparral has taken complete possession. It will be necessary to seed these areas to produce a second crop that will pay to cut.

In general, the reproduction is as good as could be expected under a clear cutting system, and the indications are that if fire is kept out, a scattered stand of nearly pure yellow pine will mature.

Recently Cut-over Land.

Reproduction on recently cut-over land is not nearly what it should be to produce a normal stand. Too few seed trees have been left to reseed the barren areas. Young growth in the virgin stand occurs mostly in patches, but would produce a fair second crop if sufficient care was used in logging to save it.

But, under present conditions, most of this growth is destroyed. Trees are felled in and logs are skidded over dense clumps of young yellow pine. This damage is greatest in areas logged with donkey engines. By far the greatest per cent of damage to reproduction, however, is done in careless piling and burning of slash. At least 75 per cent of all young growth in the virgin stand is destroyed during logging operations. The remainder is not enough to produce as good a future stand as the soil is capable of yielding.

Reproduction.

So far, no attempt has been made to replant natural openings occurring in the woods. In many places this practice is essential that a fully stocked stand may be secured. Excessive light admitted to such areas after logging is unfavorable to natural reproduction. Chaparral species occur in varying numbers and their growth is greatly accelerated after logging because of additional light. A proper control of the amount of light admitted to any area is more important than any other factor in regulating the number and kind of species destined to predominate in the future crop.

Too close logging may not only afford the cut-over area or germination bed too much light for the natural propagation of trees, best suited for commercial purposes, but may remove all of the seed-bearing trees and thereby prevent natural re-stocking until the smaller trees bear fruit.

On the whole, the area under consideration is re-stocking quite well. Some planting or seeding will be necessary on frequent openings remote from seed trees. Since most of the seed-bearing trees are removed, intensive patrol is of the utmost importance during the dry, hot summer months, for areas burned over after logging can no longer be restocked by natural seeding.

To show more clearly the result of lumbering, sample plots one-quarter acre each were laid out on representative cut-over areas. The height and diameter of each stump were measured. These measurements give a clear picture of the number, size, and kinds of trees removed. All remaining trees over one inch in diameter were calipered and recorded by species and diameter classes; and those under one foot in height and one to six feet in height were measured and classified.

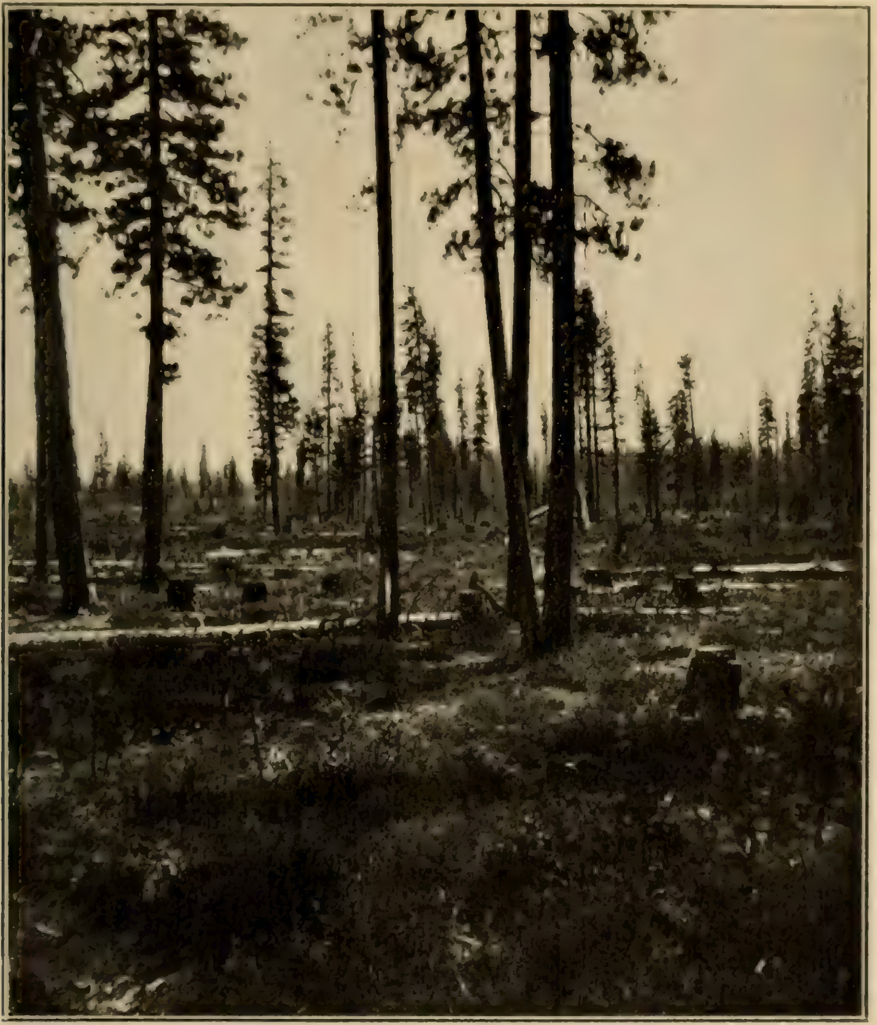

PLATE V. Proper disposal of slash.

The slash on this area has been piled and burned, and the land is now in good condition to produce another crop of trees. The fire danger to reproduction is reduced to a minimum. A surface fire, should one occur, could easily be extinguished. Disposal of slash is an important procedure in the protection of cut-over lands.

The following table gives the result of the measurements taken in tabular form. Special attention is directed to the lack of trees of sufficient size to produce seed:

TABLE No. 3.

REPRODUCTION ON RECENTLY CUT-OVER LAND.

Plot No. 1. (Camp 4.)

Stumps.			Species over 1 inch in diameter.					Seedlings.						Remarks.
								1 to 6 feet in height.				Under 1 ft. high.		
Species.	Height (feet).	Diameter outside bark (inches).	Diameter breast high (inches).	Sugar pine.	Yellow pine.	White fir.	Cedar.	Height (feet).	Species.			Species.	Number.	
									Yellow pine.	White fir.	Cedar.			
Yellow pine	3.2	52	1		10	2	1	1	29	1		Yellow pine	30	This area is badly torn up; 20% of the seedlings are O. K. while the rest are badly damaged and beyond a chance of surviving.
Yellow pine	2.8	24	2				1	2	44	2		White fir		
Yellow pine	2.5	31						3	19			Cedar		
Yellow pine	3.0	32						4	9					
Yellow pine	3.2	37						5	1					
Yellow pine	2.0	30												
Yellow pine	3.5	32												
Plot No. 2. (Camp 4.)														
Yellow pine	2.6	32	1		19	2		1	1			Yellow pine	1	
Yellow pine	2.5	20	2	1	3			2	4					
Yellow pine	2.8	22						3	13					
Yellow pine	2.4	30						4	2					
Yellow pine	2.8	26												
Plot No. 1. (Camp 3.)														
Yellow pine	3.1	24	6		1			1	16			Yellow pine	19	Good grazing over entire area.
Yellow pine	2.8	18	12		1			2	11					
Yellow pine	3.0	28	13		1			3	3					
Yellow pine	3.0	31	14				1	4	1					
Yellow pine	2.9	23												
Yellow pine	2.6	23												

Plot No. 2. (Camp 3.)

Yellow pine	3.1	38	1		6			1	12			Yellow pine	7
Yellow pine	3.0	31	2		7			2	7				
Yellow pine	2.9	19	4		2			3	1				
Yellow pine	3.1	24	5		2								
Yellow pine	3.1	26	6		1								
Yellow pine	3.1	25	10		2								
			11		1								
			12		2								
			16		1								

Plot No. 1. (Camp 2.)

Yellow pine	2.5	40	1		3			1	12			Yellow pine	25
Yellow pine	2.4	35	2		1			2	14				
Yellow pine	2.5	25	6		1			3	9				
Yellow pine	2.6	22	12		1			4	4				
Yellow pine	2.6	37	17		1								
Yellow pine	2.4	29											

Rate of Growth.

A thorough study of the rate of growth was not made. It is apparent from the measurements taken that yellow pine makes a good diameter growth during the first thirty or forty years. After that, the growth is slower. Thirty-five yellow pines of average growth were measured. They varied in diameter from 13.5 inches to 25.6 inches. The total height ranged from 55.6 feet to 103.5 feet and the age from 100 years to 207 years.

Conclusions.

The Weed Lumber Company is not practicing conservative forestry. No working plan for forest management has been prepared, and the annual cut is made without reference to the increment. The annual increment has not been ascertained nor has a financial rotation been established.

Logging is conducted without reference to the future or to the effect it has upon reproduction now on the area. Practically every tree of merchantable size on the logging area is felled and utilized. Comparatively speaking, close utilization is practiced. Stumps could be cut lower to advantage, and the bole, oftentimes, could be utilized to a smaller diameter in the top. Too few seed trees are left. Years must elapse before the areas first logged will have produced sufficient timber to afford a profitable second crop.

Slash on the older cuttings was not burned. In recent years, however, the tops and lops are burned every fall or spring. This practice lessens the fire risk, encourages the use of logged-off areas for grazing, and results generally in better forest conditions. More care should be exercised in piling brush to secure a cleaner burn and to protect reproduction, much of which is now unnecessarily destroyed during the burning operations. Brush piles should be made away from standing trees, and, so far as is practicable, placed in open places.

Areas that have little reproduction, after having been closely logged, should be planted or seeded before chaparral becomes firmly established. It can be held in check and eventually crowded out by the shade produced by young plants. On the whole, natural reproduction is good.

Every precaution is taken against the escape of fire in the woods, and prompt action is taken to extinguish those that do start. The woods superintendent, cruisers, and commissary clerk cover the territory between camps so frequently that they serve as patrolmen. Areas that are being logged are therefore well protected. Cut-over land, remote from the traveled trails and roads between camps, are unprotected and a fire once started could easily gain dangerous headway before the crews could be assembled and transported to the danger zone. For this reason two patrolmen should be employed during the fire season with no other duties. They should report in, daily, from designated stations, which should be connected by telephone with one of the camps.

McCLOUD RIVER LUMBER COMPANY.

In General.

The holdings of the McCloud River Lumber Company are situated northeast of the town of McCloud. The area comprises 232,063 acres, of which about 71,000 acres are cut-over and 161,063 acres are virgin. The country is rough and mountainous in a large part of the tract, but opens out into rolling ridges and flats where logging conditions are almost ideal.

Fire.

Serious fires occurred on this area approximately fourteen, thirty-seven and forty-five years ago, as evidenced by ring counts on the fire-scarred stumps. These fires burned over large areas between McCloud and the present camps on which chaparral has now taken possession.

There have been no bad fires in recent years for the reason that the company has adopted a fairly efficient system of fire protection. All logging engines are equipped with spark arresters. Two firewardens with salaries of $75.00 per month and horse feed, are hired. Their duties consist of patrol work during the fire season and taking charge of the brush burning in the spring and fall. They report each week to the superintendent of the company and have orders to call out a whole camp if necessary to extinguish a forest fire. All campers and hunters on the company's holdings must obtain a permit from the office, and each firewarden must report the campers when they arrive in his territory. The company has had seven of its employees appointed state firewardens.

At the donkey camp, two night watchmen are employed to watch for fire. One patrols the camp and the other watches the donkeys. If fire is discovered, the watchman reports to the camp foreman immediately and the crew is at once called out to extinguish it. All employees, including the railroad crews, have orders to stop work and extinguish fires. The section crews are required to keep the old rotted ties and rubbish along the right of way burned up. Water barrels have been placed at intervals on all trestles. The company's warehouses at Bartol have water barrels on the roofs and a fire hydrant with a real fire hose is located near them. At the mill and around the company's administrative buildings in McCloud are located hydrants with reels of fire hose placed conveniently close together. The interior of the buildings have been equipped with automatic sprinkling systems.

Forest Cover.

Dense stands of chaparral have taken possession of most of the old cut-over lands. Even where recent fires have burned off the forest cover, the chaparral is rapidly sprouting and will undoubtedly again take possession of most of the area. On the areas of the oldest fires, most of the seedlings have outstripped the forest cover and will eventually regain possession. The species forming the forest cover on the old cut-over lands are manzanita, buckthorn, ceanothus, black oak, willow and cherry. Additional species, such as dogwood, aspen, alder and wild rose, are found on the recently cut-over lands, where enough white fir has been left to produce a partial shade. These latter species also occur as an undergrowth throughout the virgin stand. The manzanita, ceanothus, buckthorn, wild rose and black oak grow on the drier locations while the willow, dogwood, alder, and cherry seek the more moist situations.

Ground Cover.

The ground cover on the old cut-over lands is very thin, consisting of squaw-carpet, thimbleberry, ferns and a thin layer of pine needles and chaparral leaves. Ferns and thimbleberries are found only where the moisture conditions are good. On the more recently cut-over lands, grasses, ferns, thimbleberries and other herbaceous plants grow in abundance, and a thick layer of duff, humus, needles and leaves is found everywhere except on small burned areas. The ground cover is decomposing most rapidly in the moderately moist situations and is making a good germinating bed for seeds.

Logging.

Very little damage is done to the reproduction by the logging operations. A diameter limit of 18 inches on the stump has been established for all species. This limit is sufficient in this locality to leave plenty of seed trees to restock the cut-over areas. Fine, thrifty yellow and sugar pines up to 18 inches in diameter were noted on the recently cut-over lands. Only sugar and yellow pine are being cut for the market. Fir is taken only for a specified order or when it has to be cut on the right of ways or for the company's own construction use or for fuel.

Stands that run heavy with firs, even though there are scattering pines in mixture, are left with the hopes that a future market can be found so that all the mature timber of all species can be cut to advantage. Some of the most accessible pine is taken from these stands, but the remaining areas appear almost virgin.

Trees are used down to a top diameter of 8 inches to 12 inches according to the character of the top. Stumps are cut to an average height of 2.8 feet. Timber, broken in felling, is used in odd lengths down to a minimum of 8 feet. If the company continues to discriminate against white fir, it will undoubtedly be the predominating specie in the next stand because of the numerous mature seed trees left, with their prolific seed-bearing power and the high percentage of germination of the seeds. More fir should be cut in order to check its rapid re-seeding of areas suitable for the reproduction of the more valuable pines.

Waste in Logging.

This company is pursuing the policy of fairly close utilization of its timber. All trees smashed in felling are taken down to a length of 8 feet. The stumps average 2.8 feet in height. In only a few instances have tops been left that might have been utilized had they been taken at the time of logging. The reason for the small waste is that the company owns a well equipped box factory at McCloud and the odd lengths can be profitably utilized. Instances were noted where doty and wind shaken logs, containing barely enough lumber to pay for the cutting and handling, were taken.

Disposal of Slash.

Slash is partially piled either in windrows or piles during the logging operations. Soon after the first rains in the fall and before the last rains in the spring, the two company firewardens take charge of the brush-burning crews. The slash, as it is lopped, is thrown out of the way of the skidders, sometimes on young reproduction, sometimes on top of the chaparral and sometimes in the open. The brush burning is not thoroughly done for the reason that the tops are not lopped enough to aid the fire in consuming the larger branches. However, the needles and small branches are consumed and the greater part of the fire danger removed. The slash should be piled away from the reproduction, for a large per cent of the growth is destroyed by the present system.

In the old cuttings, which have not been burned over, the slash has dropped its leaves and is slowly decomposing. It does not constitute a serious menace, but would make ready fuel in case of a ground fire.

PLATE VI. Destruction by fire.

Results of a ground fire in Shasta County that burned over four sections of cut-over land and destroyed a portable sawmill, the ruins of which are shown in the picture. All tree growth in the path of the fire was destroyed. Chaparral is already taking possession of the area. Sparks from a donkey engine started this fire. Had there been an efficient system of fire protection, the fire would never have reached the mill.

Diseases.

Fungi is working in the heartwood of the sugar and yellow pines and doing considerable damage. A grayish white growth forming in the tops of the sugar pines indicate that it is sapping its nourishment from the host and slowly destroying the heartwood. A growth of 6 inches in diameter and 15 inches in length will destroy from 6 to 8 feet of the trunk. Heart-rot runs badly in sugar pine when punky holes, left by drying branches, are found on the exterior. Considerable heart-rot is also found in yellow pine, but they run more sound than the sugar pine. The incense cedar runs very doty with dry rot, especially when mature.

Rate of Growth.

A detailed study of the rate of growth of the several species was not made. Fifteen yellow pine trees were carefully measured to give an idea of the number of years required to attain their diameter and height growth. Diameter measurements were taken at a point 4.5 feet from the ground. These trees varied from 12 inches to 23.6 inches in diameter and are from 38 to 177 years old. Their total height ranges from 50.8 feet to 167.4 feet.

Conclusions.

The McCloud River Lumber Company is not practicing conservative forestry because the annual cut is made without reference to the yield. No rotation of crops has been established. Future yield is being left to chance.

An approximate diameter limit of 18 inches has been established for such species as are harvested. This practice offers some assurance for natural reproduction but will not secure a fully stocked stand on cut-over areas. But little white fir is being removed, so this species will form a larger percentage in the next crop and to the exclusion of the more profitable ones. Close utilization of felled timber prevails.

A fairly good fire protective system is in force. Mounted patrolmen ride continually during the dry season; woods foremen and train crews are instructed to respond promptly to fire calls; and a hunting and camping permit system is in force.

Tops and lops resulting from logging are burned under favorable conditions. Not enough attention is given to reproduction during the burning operations. Brush piles should be made as far from seedlings as possible. Tops should be lopped closer to insure a cleaner burn.

CASTLE CREEK WATERSHED.

In General.

Castle Creek empties into the Sacramento River in section 22, township 38 north, range 4 west, about one half mile north of Castella, Shasta County, About 30,000 acres, which are located in township 38 north, range 4 west, township 39 north, range 4 west, township 38 north, range 5 west, and township 39 north, range 4 west, about one half mile north of Castella, Shasta County. ranges from 2,000 feet at the junction of the stream with the Sacramento River to about 4,000 feet at its source. The slopes, varying from gentle to very steep, come down almost to the bed of the creek, but near the mouth, the canyon widens out until it is nearly a fourth of a mile in width.

Fire.

Old fires have swept over this watershed, completely killing large areas of timber and doing great damage to many other areas where the trees were not entirely killed. Chaparral has taken complete possession of many of these burned over slopes. Almost every mature tree on this watershed is more or less scarred and charred stubs are scattered throughout the entire area. It is impossible to determine the exact dates of these fires, but the indications are that there were at least three, which occurred at intervals of approximately fifty years.

There have been no bad fires on this watershed during the last ten or twelve years. This is due to the fact that a part of the basin has been included in the Shasta National Forest and in consequence the entire area has been protected.

Aside from the Government patrol, very little is being done on this watershed in the way of protection. The M. A. Burns Lumber Company is operating in this basin, but they are doing little or nothing to protect their timber. Their engines are not equipped with spark arresters, no patrol has been instituted on their lands, and their slash, which is unburned, is a serious menace.

They do not coöperate with the Government, except in so far as is specified in their contracts purchasing government timber, but they are endeavoring to be reasonably careful about starting fires and put out any fire they may discover on their own land.

The company should be required to equip all of their engines with spark arresters, and to burn their slash each year. Under the present conditions it would be almost impossible to extinguish a fire in the cut-over lands. It would not be necessary for them to institute any system of patrol for the area owned by them is comparatively small, and the government rangers patrol the entire watershed. They could easily notify the company in case a fire breaks out on their own land.

Reproduction.

In the areas where there have been no recent fires, the reproduction is fairly good in both the virgin and the cut-over lands and consists mainly of yellow pine, Douglas fir and incense cedar. Sufficient seed trees to produce a future crop have been left in the cut-over land belonging to the government and the reproduction is fairly good. The privately owned cut-over land has been logged too close. Insufficient seed trees have been left, and chaparral is gaining possession of the logged-off area. However, if fires are prevented a light unmerchantable stand can be secured. The danger of fire to the young growth on the private land is much greater than to that on the government land, because of the slash which has been left unlopped and unburned on the ground. There is little or no reproduction on the burned-over areas. No seed trees were left alive to re-seed the ground and the present chaparral growth is very dense. It would be necessary to seed these areas artificially to produce a future stand of timber.

Forest Cover.

The chaparral species noted on this watershed were willow, alder, cañon live oak, California oak, maple, manzanita, buckthorn, flowering dogwood, California redbud, chinquapin, rose, lilac, thimbleberry, Oregon grape, and squaw-carpet.

Dense thickets of willow and alder grow along the banks of the creek. The oaks and maples were found on a variety of soils, ranging from moist to very dry, but were noted in greatest abundance below 2,500 feet in elevation. The manzanita and buckthorn were found on the dry slopes and in dense growth throughout the old burns. There is considerable forest cover throughout the entire watershed, but it does not appear to retard reproduction on the cut-over land where sufficient seed trees have been left. In some parts of the virgin stand the forest cover is dense enough to hinder reproduction, but these areas are small. There is little or no reproduction in the dense thickets of manzanita and buckthorn found on the steeper slopes. However, these chaparral areas act as a substitute for the trees in conserving the moisture and preventing erosion on the watershed.

Logging.

Approximately 3,000 acres have been cut-over on this watershed. Of this, about 1,500 acres were on government land and the remainder on privately owned land. The logs were hauled down dry chutes to the logging railroad with donkey engines.

Cut-over land belonging to the government presents a great contrast to the privately owned land. On the former, the effect of logging has been merely to thin out the stand and make way for a good future crop. A diameter limit of approximately eighteen inches was established, and a sufficient number of thrifty seed trees of the most desirable species were left to produce another crop of timber. On the privately owned land, however, the area has been completely skinned. Everything from which a log could be secured, was cut, and there are far too few seed trees left to re-seed the area. A large per cent of the privately cut-over land is already in possession of chaparral and would undoubtedly need artificial seeding to produce a future stand of timber that would pay to cut.

Waste in Logging.

A policy of very close utilization has been followed on all the government land. The stumps were cut down to a height of from 1.5 to 2 feet and the tops were taken up to a very small diameter. On the private land, the unnecessary waste has been great. The stumps were found to range from 3 to 5 feet in height and long unused tops were left, from which another log could easily have been taken. Many trees also were broken by careless felling and a number of logs of merchantable diameters were left in the woods.

Disposal of Slash.

All the slash has been burned on the cut-over land owned by the government. The branches were lopped from the tops and the slash was piled away from the young growth so that very little damage was done to it when the piles were burned in the fall. The contrast between the condition of the slash on the government land and that on the privately owned land is so great that one can almost determine the exact boundaries between the two merely by looking at the slash. Nothing was done with it on the privately owned land. The tops were left on the ground with their branches unlopped and at the present time constitutes a grave fire menace to the reproduction. On the old cuttings, a part of it has been destroyed by fire and the remainder has decomposed to some extent. If fire is kept out for a few years more, the slash will probably decompose enough to greatly reduce the danger to the reproduction. But on the recent cuttings, the slash is so thick in many places that one cannot pass over the area without great difficulty.

PLATE VIII. Result of repeated fires.

A once thickly timbered area now covered with a dense growth of chaparral as a result of repeated fires. There are approximately 5,000,000 acres of chaparral land in California, which were once covered with timber. Repeated fires have killed the trees and given the chaparral possession. Burned timber pays no wages and turns away labor empty-handed. Taxes on other forms of real estate are increased. An adequate protective system, maintained by the State, would prevent these disastrous fires.

Conclusions.

The deep slopes of the Castle Creek watershed need protection to prevent erosion and to conserve the water.

The M. A. Burns Lumber Company which is operating on this watershed, should coöperate with the government in protecting their lands from fire. Their engines should be equipped with spark arresters. The company should establish a larger diameter limit in order to leave sufficient seed trees to produce a good future stand.

The slash on the private lands should be piled away from the young growth and burned every fall after the first rains in order to reduce the fire danger to the reproduction. Unnecessary loss resulting from high stumps, unused tops, careless felling and logs left in the woods, should be discontinued.

LA MOINE LUMBER AND TRADING COMPANY.

In General.

The holdings of the La Moine Lumber and Trading Company are situated about seven miles west of La Moine, Shasta County, around the headwaters of Slate Creek, which is tributary to the Sacramento River. The tract comprises about 13,630 acres, of which 8,106 acres are cut-over and 5,524 acres are virgin. The elevation ranges from about 1,000 feet above sea level at La Moine to approximately 4,500 feet near the Trinity divide. The slopes are very steep and all logging is done with donkey engines.

The logs are hauled from the woods to the mill by a narrow-gauge railroad. All lengths are taken, but the 32-foot logs are used as much as possible to facilitate handling with the donkeys. The sawed lumber is sent by flume from the mill to the yards and factory at La Moine.

Fire.

Bad fires occurred in this locality approximately seventy-two, fifty-seven, forty, and twenty-two years ago, as evidenced by ring counts on the scarred stumps. The bareness of the area, the numerous charred stubs and the extensive chaparral areas prove that devastating fires have swept the area. There have been no serious fires, however, in recent years, due to the more careful handling of donkey engines, and the inclusion of the adjacent land within the Shasta National Forest, which is patroled during the dangerous season.

The company has a fairly good system of protection around its improved properties. Hydrants with reels of hose are scattered conveniently about the grounds of the box factory at La Moine and the buildings are equipped with an automatic nozzle system. The land around the mill was cleared as a protective measure, and hydrants, under pressure, have been installed at the mill. The donkey engines in the woods are equipped with spark arresters.

The company maintains no system of patrol on its holdings, and if their timber is to be protected from future fires, it will be necessary to establish some sort of patrol. The lands are so situated that one man could patrol such part of the holdings as to obtain a general view of all the rest of the area. This guard also could take charge of burning the slash and thus decrease the danger of destroying the virgin timber. A competent man for this work could be secured for about $50.00 per month and board, making the total cost to the company not more than $75.00 per month. In this region the dangerous season covers only about four months and the total cost of this protection would not exceed $300 or approximately 2 cents per acre.

Forest Cover.

Chaparral makes a rather dense growth in the virgin stand. Where the timber is thin, the brush has taken possession almost to the exclusion of all other growth. On the cut-over land, the chaparral is coming in rather slowly, but the indications are that it will claim most of the area, as there are far too few seed trees to give the reproduction a fair chance to get started. On the dry situations the following species were noted: Buckthorn, manzanita, ceanothus, rose, sadler oak, black oak, chinquapin, wild plum, lilac, and cherry. The following additional species were found in the more moist situations: California buckeye, dwarf maple, broadleaf maple, Oregon oak, California laurel, snowball, pepperwood, wild raspberry, elderberry, California redbud, Oregon grape, willow and dogwood.

Ground Cover.

The ground cover in the virgin forest is good, consisting of duff, humus, needles, ferns, squaw-carpet, and numerous herbaceous plants. Owing to the abundance of forest cover in the virgin stand, the ground cover is kept fairly moist and is decomposing well, making a suitable bed for germination. On the cut-over lands, the ground cover is scarce. Many places were noticed where the mineral soil was exposed. Over this area, it would probably be necessary to resort to planting to prevent the area from being claimed by chaparral.

Rate of Growth.

The number of trees measured are insufficient to indicate accurately the rate of growth in table form, and the following data obtained by measuring twelve yellow pine, five white fir, two Douglas fir and three sugar pine, all of which were more or less suppressed, will serve only as an indication of the rate of growth on these holdings. Diameter measurements were taken at a point 4.5 feet from the ground.

Yellow pine attained diameters varying from 14.6 inches to 25.8 inches; ranged from 111 years to 177 years old, and in total height from 65.7 feet to 126.75 feet.

Sugar pine attained diameters varying from 16.6 inches to 18.2 inches; ranged from 152 years to 173 years old, and in total height from 74.9 feet to 88.5 feet.

White fir attained diameters varying from 15.8 inches to 19.7 inches; ranged from 100 years to 163 years old, and in total height from 73.4 to 97.7 feet.

Douglas fir atained diameters varying from 18 inches to 19.1 inches; ranged from 174 years to 217 years old, and in total height from 85.1 feet to 102.2 feet.

Logging.

The character of the ground on this area is such that only donkey logging is possible. This method necessitates a considerable amount of damage to the young growth, but this company is taking no care to avoid unnecessary injury. They are very careless in felling and skidding and many standing trees are smashed. Nearly all the seedlings are destroyed. An approximate diameter limit of fifteen inches on the stump has been established. Since there are few trees below this limit the system is one of clear cutting rather than of selection, and the cutting area thus becomes denuded. No attempt is made to protect reproduction.

The diameter limit must be increased to insure another crop. Natural restocking is practicable, so seed trees must be left. A large per cent of the damage to the young growth could be avoided with a little care, and the area would then be left in condition to produce a good future stand.

Waste in Logging.

Aside from the smashed tops, the unnecessary waste in logging is small. Odd lengths, down to eight feet are taken for the box factory and the tops are used down to a diameter of 10 to 12 inches. The stumps are cut low, averaging only about two feet in height.

The principal waste is in the smashed tops. Most of this is caused by carelessness in felling and could easily be avoided. At present, many of the trees are felled down hill and often slide 50 to 100 feet, breaking the top so that, at least, one log is wasted.

Disposal of Slash.

In the old cut-over land, the slash that has not been destroyed by accidental fires is decomposed and does not constitute a serious menace. No disposition is being made of recent slash. The tops are not lopped, and the débris is left scattered over the ground. On the recently cut-over land, this condition is a grave fire menace to the young growth. The menace is further increased bcause of the dense brush which adds greatly to the fury of a fire once started.

Conclusions.

This company does not apply correct forestry principles in the management of its timber lands. No rotation has been established; the annual cut is made without reference to the annual increment; logging is conducted without reference to the future; and no policy has been adopted for the protection, management and reforesting of its cut-over lands.

The diameter limit established removes practically all the merchantable timber and no seed trees are left to restock the logged-off areas.

So much timber has been removed that light conditions are unsuited to natural reproduction, and chaparral bids fair to take possession of the ground that once supported a profitable forest crop.

Unnecessary damage is done to trees left standing, and to seedlings and saplings which would otherwise mature and yield more timber in time to come.

Tops, lops and other refuse left after logging are not piled or burned. Slash left in this manner invites fire which, once started, is expensive to suppress and does untold damage to reproduction and to the watershed.

Land left in such a condition, when unsuited for agricultural purposes, is unproductive and increases the taxation on other forms of property. The assessed valuations, even on timber land, are far too low.

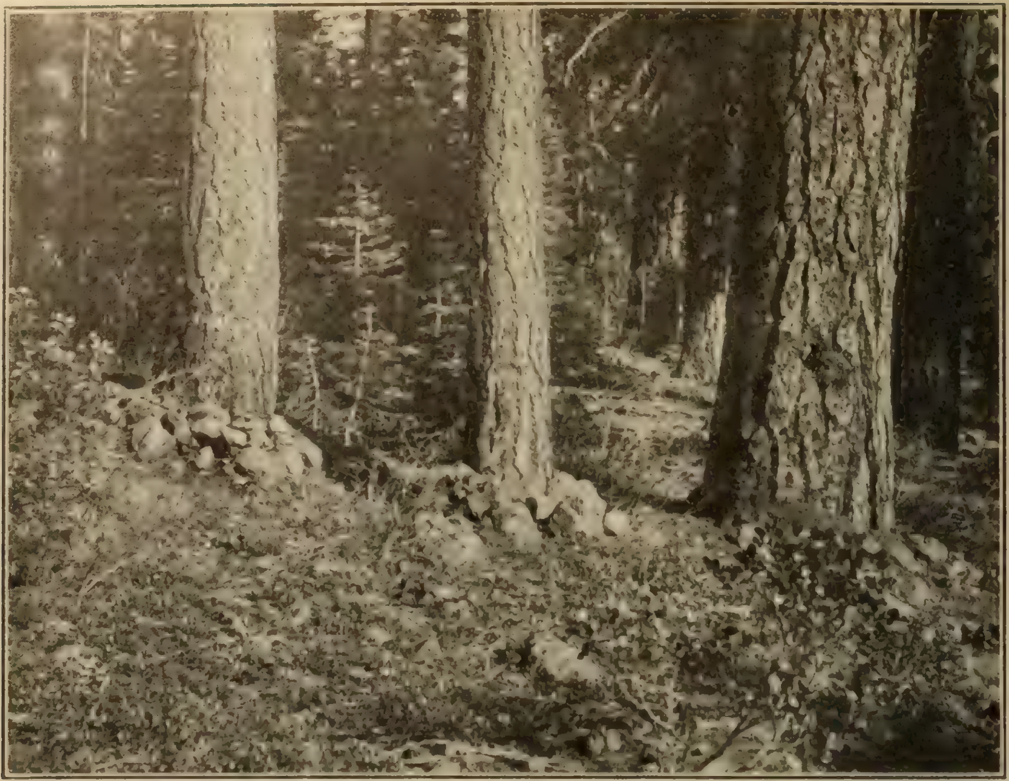

PLATE VIII. "Light Burning."

Some persons argue that forest fires can be prevented best by burning over forest areas periodically. The base of marketable trees are banked with dirt or rocks preparatory to burning. This practice is termed "light burning"—more properly "Piute Forestry." The forest floor, so necessary for the retention of water, is destroyed; seedlings and small trees are killed and the ground is unsuited for the germination of the seeds. The cost is prohibitive. It would cost about $9,000,000 to burn over our forested area once. Such a practice should be prohibited by law.

TERRY LUMBER COMPANY.

In General.

The Terry Lumber Company's holdings are situated about 35 miles northeast of Bella Vista, in the eastern half of Shasta County. They comprise 17,500 acres, of which 8,700 acres are virgin; 7,080 acres are cut-over and 1,720 acres are partly cut-over. The altitude of this tract varies from 2,800 to 5,500 feet above sea level. The mill is located at an elevation of about 4,200 feet. While logging was being carried on below this elevation a portable mill was operated and the rough lumber hauled to the flume by traction engines. The present logging camps are about four miles from the mill and the logs are hauled in by a narrow-guage railroad. The mill has a capacity of about 100,000 feet board measure daily, but during the season of 1911, cut only between 50,000 and 60,000 per day. From here, the rough lumber is flumed to the finishing mill at Bella Vista.

Fire.

The entire tract has, at some time, been burned over. Hardly a mature tree can be found that is not more or less scarred at the base. It was impossible to determine the exact dates of these fires, but it is evident that they occurred many years ago, for the fifty or sixty year old trees were not touched.

The only serious fire in recent years occurred in 1910. During this year numerous blazes were started by sparks from the logging engines. All but one was extinguished before any considerable damage was done. This fire was started by sparks from a donkey engine in section 2, township 34 north, range 1 east, and burned through sections 2, 11, 10 and 9 in the same township, completely destroying the portable mill in section 9. It was confined principally to the cut-over land, and, outside of destroying the mill, by far the largest amount of damage was done to the young growth. Everything in its path was killed and all the ground cover was destroyed, exposing the bare mineral soil in many places. Young growth is coming into this burned area very slowly, and as there are no seed trees left, it bids fair to eventually become covered with worthless chaparral.

Most of the cut-over land has been burned either at the time of logging or soon afterwards. Such fires are regarded by the company as being of little importance and no records are kept of them. That they were probably caused by indifference on the part of the company, in most cases, is shown by the absence of spark arresters on the engines and the fact that they occurred during or soon after the logging operations. Most of the young growth and such mature trees, as were left after logging, have been killed by these fires and a large part of the cut-over area is now in the possession of chaparral.

This company has no system of protection for its timber land. There are no spark arresters on any of the engines, and apparently little attention is paid to fires unless they threaten improved property. Some attempt has been made to protect the mill by means of hydrants about the grounds and barrels of water on the roof. The hoist at Camp No. 2 is also equipped with water barrels. If a fire is discovered at the start, this system of protection might be effective, but it would undoubtedly prove inadequate should the fire gain headway before being noticed.

Forest Cover.

The following species of chaparral were noted on this tract: Manzanita, buckthorn, wild lilac, deer brush, cascara, dwarf maple, alder, black oak, chinquapin, bitter cherry, western dogwood, gooseberry, wild rose, mountain willow, thimbleberry, redbud, Oregon grape, aspen and squaw-carpet.

Manzanita and buckthorn occurred mainly on the dry slopes and benches, and there was little or no reproduction on these areas. Lilac, deerbrush, cascara, maple, oak, chinquapin, gooseberry, rose, cherry, thimbleberry, redbud, and dogwood were found in a variety of soils, in situations ranging from moist to fairly dry. These species were not generally found in dense stands on this tract but were scattering and served as an usher growth for the seedlings. Alder, willow and aspen were found principally in the moist situations and along the streams.

Ground Cover.

The ground cover is good throughout most of the uncut area, consisting of a good layer of needles, a number of ferns, squaw-carpet, Oregon grape and thimbleberry. It is decomposing well making a good layer of humus. This is especially true of the more moist situations, where it makes a very suitable bed for germination.

On most of the cut-over land, especially that which has been cut in the last decade, fire has destroyed the ground cover, leaving a mineral soil exposed. Ferns and squaw-carpet are coming in the most rapidly on these areas, and there is also a thin layer of needles deposited by the dying trees.

Logging.

Because of the steep character of the country, the logging is done entirely with donkeys. The logs are hauled down dry chutes to the railroad. From here the loaded cars are drawn to the top of the ravine by means of a hoist and cable, and the logging engines take them from the hoist to the mill. The company is cutting entirely too close to provide for a second crop. Every tree from which a log can be secured is taken. Trees above 18 inches in diameter are cut for lumber; below 18 inches, they are cut mostly for ties. The stand remaining after logging is composed of scattered, unsound trees, with dead and dying tops.

No attention is paid to young growth when logging, and a large per cent of the seedlings are destroyed by careless felling of trees and skidding logs; but this damage is small compared with that done by the fire, which almost invariably follows logging on these holdings. All the remaining young growth is destroyed by this fire and the area left to become covered with chaparral.

If a second crop is to be secured on these lands, it will be necessary (1) to leave more seed trees, (2) to exercise more care in logging and (3) to protect the cut-over lands from fire.

Waste in Logging.

The chief wastes in logging noted were in high stumps and in broken tops. The stumps averaged about three feet in height, and could be cut to a height of 18 inches to two feet without additional expense.

Most of the broken tops were caused by carelessness in felling. Trees were often felled down the side of a steep hill and, as a result, the tops were badly smashed destroying, at least, one merchantable log.

Several sample plots were taken in different localities to show these conditions graphically. The following tables were made from the data secured on these plots:

WASTE IN LOGGING.

Plot No. 1.

¼-acre plots.

Stumps.			Unused tops.		Unused merchantable section.		Trees left, 6 inches in diameter and over.		Remarks.
Species.	Diameter outside bark. (inches).	Height. (feet).	Total length of top. (feet).	Diameter outside bark at butt. (inches).	Length to 6 inch top diameter, (feet).	Diameter outside bark at butt. (inches).	Species.	Diameter breast high. (inches).	
White fir	37	3.2	29.6	10	14.6	10	Cedar	22	Alive; uninjured.
White fir	32	3.1	33.5	13	21.0	13	Douglas fir	15	Alive; uninjured.
Sugar pine	46	3.0	26.3	14	15.0	14	White fir	23	Alive; uninjured.
Yellow pine	34	3.4	25.8	18	Broken; impossible to measure.		White fir	19	Alive; uninjured.
							White fir	12	Alive; uninjured.
							Douglas fir	20	Alive; top broken.

Plot No. 2.

Stumps.			Unused tops.		Unused merchantable section.		Trees left, 6 inches in diameter and over.		Remarks.
Species.	Diameter outside bark. (inches).	Height. (feet).	Total length of top. (feet).	Diameter outside bark at butt. (inches).	Length to 6 inch top diameter, (feet).	Diameter outside bark at butt. (inches).	Species.	Diameter breast high. (inches).	
Douglas fir	28	2.8	36.0	13	20.6	13	White fir	20	Dead.
Douglas fir	27	2.9	44.0	16	*29.0	16	White fir	26	Dead.
White fir	34	3.0	Smashed above 1 foot 9 inches in diameter by felling; impossible to measure.				White fir	9	Alive; suppressed.
Cedar	34	3.1	38.0	13	28.0	13			
Douglas fir	25	3.0	50.8	16	35.1	16			
White fir	24	2.7	39.1	13	22.7	13			

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*Top broken.

Plot No. 3.

Yellow pine	36	3.1	Shattered.	23	30.9	Broken at 23	White fir	20	Alive; top broken.
White fir	40	3.0	38.5	13	21.5	13	Cedar	17	Alive; fire scarred; bad condition.
Yellow pine	37	2.9	45.6	25	37.6	Broken at 25	Yellow pine	19	Alive; poor top; bad timber.
Yellow pine	26	2.6	34.9	14	22.9	14	White fir	7	Alive; good condition.
Sugar pine	35	3.0	*35.0	26	Broken.†	26	White fir	9	Alive; good condition.
Sugar pine	41	3.3	45.0	19	32.5	Broken at 19	White fir	12	Alive; good condition.
White fir	26	2.8	57.9	17	43.9	17	White fir	11	Alive; good condition.
White fir	21	3.1	26.5	6	Used up to 6 inches top diameter.		White fir	9	Alive; good condition.
							White fir	6	Alive; good condition.

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*Heavy branches.

†Broken above 18 feet to 2-foot diameter.

Disposal of Slash.

No disposition is made of the slash. On the recently cut-over lands it constitutes a serious menace to the reproduction, and when fire comes in, as it most invariably has done on this tract, it will destroy all the young growth. If the branches were lopped from the tops and the débris piled and burned in the fall, ample protection would be afforded to reproduction since the ground cover is not thick enough to make a very hot fire.

Considering the area as a whole, the present fire menace from slash is not great, for the reason that most of the cut-over land was accidentally burned over at the time of logging or soon afterwards.

Second Growth.

On the area cut about 1892, before the present company assumed ownership, only the choicest and most accessible sugar and yellow pine was taken. This was due to the fact that the timber has to be freighted to Bella Vista, a distance of thirty miles, by teams, as the flume was not then built. So little has been taken out that the stand appears virgin to-day and a traction road is being built for the purpose of again logging it.

In examining the land cut over ten years ago (1902), a representative area of four acres was taken and only one small tree was found. Fire had swept the area and destroyed all the remaining young growth, and buckhorn, manzanita, deer-brush, and willow had taken possession. The soil and moisture conditions were good, but unless seeding or planting is resorted to, the area will remain in the possession of the chaparral. A few white and Douglas firs were noted in patches on this area, but they were far too few to reseed any great portion.

On the south half of section 1, township 34 north, range 1 east, the five-year old cut-over land was examined. They had cleared this area also. In only a few spots where fire had missed were any seedlings found. Sample areas taken in this cutting, would, in the majority of cases, show no reproduction. Ferns and salmon berry have come in thickly and chaparral is slowly gaining possession.

Sample plots were taken in the recently cut-over land that had not yet been touched by fire. The following tables were compiled from this data to show the actual amount of reproduction on this land. Each plot represents one fourth of an acre:

REPRODUCTION ON CUT-OVER LAND.

¼-acre plots.

Plot No. 1.

Stumps.			Species over 1 inch in diameter.				Seedlings.							Remarks.
							1 to 6 feet in height.					Under 1 ft. high.		
								Species.						
Species.	Diameter outside bark. (inches).	Height. (feet).	Diameter breast high. (inches).	Cedar. No.	White fir. No.	Yellow pine. No.	Height. (feet).	Sugar pine.	Yellow pine.	White fir.	Cedar.	Species.	Number.	
Douglas fir	46	3.5					1					Douglas fir	1	Area had been dragged over considerably by donkey engines.
Douglas fir	43	3.1	None. Chaparral coming in very thickly.				2			1		White fir	8	
Douglas fir	35	4.0					2.5			1				
Douglas fir	48	4.9					2.7			1				
Douglas fir	28	3.5					3.0							
Yellow pine	36	2.7					4.0			1				
Plot No. 2.														
Yellow pine	49	3.3	2		1		1	4	5	15	14	Sugar pine	39	Chaparral and squaw-carpet rapidly coming in on the area.
White fir	20	3.0	5		1		2	8	10	19	8	Yellow pine	33	
Cedar	20	3.0	6		1		3	4	10		2	Douglas fir	1	
White fir	29	3.1	10	1			4	1	7	1		White fir	51	
White fir	36	2.8	11	2			5			1		Cedar	40	
Douglas fir	52	3.5	22	1	Stub broken.		7			2				
White fir	31	3.0												
Plot No. 3.														
Douglas fir	42	3.8	2		2		1	2	1	3		Sugar pine	30	
Cedar	14	3.2	8			1	2	3		1		Yellow pine	4	
Cedar	17	3.6	11		Broken top 1		3	1				White fir	3	
Sugar pine	40	3.0	17		1		4	1				Cedar	17	
Cedar	13	2.6	19			1								
Yellow pine	21	2.8												
White fir	44	2.9												
Cedar	46	3.0												
Sugar pine	19	2.9												
Sugar pine	40	3.0												
Sugar pine	49	3.4												

Rate of Growth.

Whether forestry, as a business proposition, under present conditions, is feasible or not depends chiefly upon the time required in which to secure a second crop. The "skinny" or clear cutting method of universal practice in California removes all of the merchantable trees at one cutting without considering the minimum diameter below which cutting is undesirable. A tree 12 inches in diameter adds more new wood growth in a year than one but half this wide. And a very old tree ceases to make any material increase. There is some diameter for each species that represents the maximum rate of growth and volume obtainable in a minimum time. Studies of the rate of growth are made, then, with the view of determining the approximate diameter that trees of different species can be harvested with the greatest profit to the owner.

Many measurements must be taken to secure authentic data. Such detailed investigations could not be conducted this year. Sample plots were selected in average reproduction areas of sugar and yellow pines and white fir. After determining the age of the stand, the diameter and height of each tree was ascertained. The average diameter and height were then computed, and a tree, having these dimensions was selected, felled, and its exact age determined by ring counts.

These measurements show that sugar pine fifteen years old attains a total height of 7.8 feet and a diameter of 2.8 inches 1 foot from the ground and 1.4 inches at a point 4.5 feet from the ground. The area upon which these measurements were made was cut over twenty years ago. If another crop is to be harvested it is unnecessary to linger on the need for protection against fire.

Yellow pine reproduction, on the same cut-over area, was sixteen years old, and had attained an average diameter of 1.6 inches 1 foot from the ground and 0.3 inches at a point 4.5 feet from the ground. The total height was 4.8 feet.

White fir reproduction, on the same area, came in almost immediately after logging for the average tree was nineteen years old. Its diameter at a point 1 foot from the ground was 1.9 inches and 0.9 inches at a point 4.5 feet from the ground. The total height was 7.0 feet.

Few companies have large enough holdings to log so close as the Terry Lumber Company without having to wait for a number of years, after logging the last unit, before the first one cut-over is again ready for the axe. Sawmills cannot remain idle for a great length of time without serious deterioration.

Conclusions.

The Terry Lumber Company is not practicing conservative forestry. Their annual cut is not based upon the annual or periodical increment. No rotation has been established and timber is cut far faster than it produces. Reproduction is given no consideration, and no effort is being made to secure another crop, either naturally or artificially.

No disposition is made of the slash resulting from logging. It increases the fire risk and serves to increase the intensity of fire once started. When fire does occur, all reproduction will be destroyed.

There is no organized system of fire protection. None of the donkey engines or locomotives are equipped with spark arresters; the latter continually plying through inflammable slashings.

Because the present logging operations are conducted without reference to the silvical requirements of the various species, chaparral is fast gaining possession of the cut-over area to the exclusion of merchantable trees. Such areas present difficult and time-taking problems to the forester who would place such lands on a timber producing basis.

SIERRA NEVADA WOOD AND LUMBER COMPANY.

In General.

The examination of this tract was made late in the season and was necessarily brief. It was confined principally to the system of protection and the disposal and condition of the slash.

The company is operating, at present, in Sierra County. The entire holdings in Sierra, Nevada, and Placer counties comprise 65,680 acres, of which approximately 36,308 acres are virgin and 29,372 acres are cut-over. The offices and mill are located at Hobart Mills, about six miles north of Truckee, with which they are connected by a broad gauge railroad. A narrow guage railroad hauls the logs from the two camps, twelve miles northwest of Hobart Mills, to the mill.

The elevation ranges from about 6,000 feet to 8,000 feet above sea level. The slopes are not precipitous, but they are of such character as to make only donkey logging possible. The mill has a capacity of 175,000 feet board measure per day of ten hours.

Effect of Logging.

An approximate diameter limit of 14 inches has been established by the company, but trees are taken down to twelve inches if a good log can be secured. Such a limit means that everything of merchantable size is taken, leaving the area denuded.

A large per cent of the young growth is destroyed during logging operations. Much of this is due to carelessness in felling and skidding and could be avoided.

Fire Protection.

The improved property is well protected. The interior of the mill is equipped with automatic nozzles, and the grounds are well supplied with hydrants and reels of hose. All engines and locomotives have spark arresters. Watchmen are employed to guard against fire at night. Their number is increased at the camps when there is a high wind blowing.

The company does not protect its timber lands and several bad fires have occurred in recent years. The most serious one happened two years ago. It was due to negligence on the part of the company's foreman. It was located on a government cutting and cost the company about ten thousand dollars for damages. A fire like this is conclusive proof that protection pays in the long run.

Two mounted guards would be sufficient to patrol the entire tract. Competent men could be secured for $75.00 per month. The total cost for the dangerous season should not exceed $600. At this rate, the amount lost in the one fire would have protected the entire holdings for a period of seventeen years. And, in addition, the timber that was destroyed would have been saved to the company.

Disposal of Slash.

Most of the slashings on the old cut-over lands have entirely disappeared or are well advanced in decomposition and may not be considered dangerous. But the conditions are bad in the area along the Nevada County road, which was cut over about eight years ago. Here the slash, consisting of broken timber, long tops and branches were left in a jumbled mass and still constitute a serious menace to the reproduction.

The conditions are bad on all of the recently cut-over land. Trees are felled so as to be most accessible for skidding and the slash is left where it falls. No attempt is made to make any real disposition of it, or to lessen the danger to the young growth.

The company, at one time, cut all the branches and tops for fuel, but the additional cost of reloading from the narrow to the broad guaged cars at Hobart Mills made the practice unprofitable and it was discontinued. At present, the tops and the largest branches are cut into long lengths in the woods and sawed into stove lengths by an electrically driven saw for use at Hobart Mills. But not enough of the slash is disposed of in this way to greatly lessen the fire menace. The remainder should be piled away from the reproduction and burned, every fall, after the first rains.

Conclusions.

It is apparent, from a partial study, that this company is not practicing forestry on its holdings. No rotation of crops has been established and the cut is made without reference to the yield. The area is cut so close that no seed trees are left to produce a second crop. No system of fire protection has been established. No real disposal is made of the slash. A small per cent is removed for stove wood, but the remainder is left to form a constant menace to the reproduction.

VERDI LUMBER COMPANY.

In General.

The office and mill of the Verdi Lumber Company are located at Verdi, Nevada, but their timber lands are in the eastern part of Sierra County, California. The tract comprises 14,080 acres of which 4,640 acres are timber land and 9,440 acres are cut-over. Two logging camps are in operation. Camp No. 1 is situated on the line between sections 2 and 3, township 19 north, range 17 east, and Camp No. 2 is in section 1, township 20 north, range 17 east. The bulk of the cut-over land lies between these two camps. The elevation ranges from 4,900 feet at Verdi to approximately 8,000 feet at Crystal Peak. The slopes range from gentle to very steep and can only be logged with donkey engines. The logs are transported from the camps to the mill by a standard gauge railroad.

Fire.

There have been at least three general fires in this locality. Ring counts on the scarred stumps show that they occurred approximately fifty, sixty and seventy years ago, and the numerous charred stubs bear evidence of the extent of damage done by them. The company has been fortunate in recent years in this regard. There have been a few small fires that did a certain amount of damage to the young growth, but no areas of any great size have burned over.

The mill at Verdi is well protected, but the protection system for the timber lands is inadequate. The donkey engines are equipped with spark arresters, and watchmen are employed to look out for fires near the donkeys at night. Dead snags near the engines are cut to lessen the danger. But there is no patrol system during the dangerous season and if a fire should start at any distance from the camps it could easily get beyond control before being discovered and men sent out. The woods superintendent is constantly going between camps, and serves to some extent as guard, but at least one man should be hired during the dry months, whose duties should be purely patrol and extinguishing fires.

Reproduction.

Not enough seed trees have been left on the cut-over lands to reseed them properly. A fair growth of yellow pine is coming in on the old cuttings, but the largest per cent of this was there before logging. Chaparral is making but little headway, and does not interfere with reproduction. Even if a fire is kept out, the second crop will undoubtedly be much lighter than the original stand.

Forest Cover.

The forest cover on this tract occurs mostly in patches and is seldom dense enough to hinder reproduction. The species which occur generally throughout the stand are manzanita, buckthorn, ceanothus, mountain mahogany, gooseberry and chinquapin. Quaking aspens, willow, alder, elderberry, rose, and wild cherry were noted on the moist benches and along the streams. Sagebrush is the principal species of forest cover growing on the dry, open areas.

Ground Cover.

The ground cover in the virgin stand is very good, consisting of a thick layer of needles, humus and duff. On the cut-over lands the cover is thin and is mainly the result of the dropping of needles and the decomposition of the slash. Thimbleberry, cowcabbage, squaw-carpet, and Indian paint brush form the principal growth and these species do not occur in great abundance, except in limited areas.

Logging.

The method of logging is similar to that used by the M. A. Burns Lumber Company. The logs are hauled down dry chutes to the landing by donkey engines. The main chute is about a mile long and laterals are built to increase the area logged by the one chute. Twenty to thirty logs are hauled down the chute at one time by the main "bull" donkey. The logs are hauled from the landing to the mill by a standard guage railroad.

The company is cutting too close. Trees down to a breast high diameter of 15 inches are cut for lumber, and trees from 8 to 15 inches in diameter are cut for cordwood and ties. The land is practically denuded and no seed trees are left to produce a future crop. All species of merchantable sizes are taken. White fir is used principally for chute poles and ties.

A large amount of unnecessary damage is done to the young growth during logging. Trees are often felled in and skidded through thick clumps of seedlings. Most of this damage could be avoided, without expense, by exercising a little care.

The diameter limit for yellow pine should be increased enough to leave sufficient seed trees to reseed the area. The greater per cent of this land is fit for nothing but the growing of timber and more seed trees must be left to secure a second crop.

Waste in Logging.

This company has adopted a policy of very close utilization of its timber, and the unnecessary waste was less than in any other company examined. The stumps are cut down to a height of from 2 to 2½ feet and the tops are utilized to a small diameter. After all the available logs are taken, the remainder of the tops and the larger branches are cut up into cordwood. Inferior species, such as white fir, are cut for chute poles. When an area has been logged, the old chute poles are cut into ties.

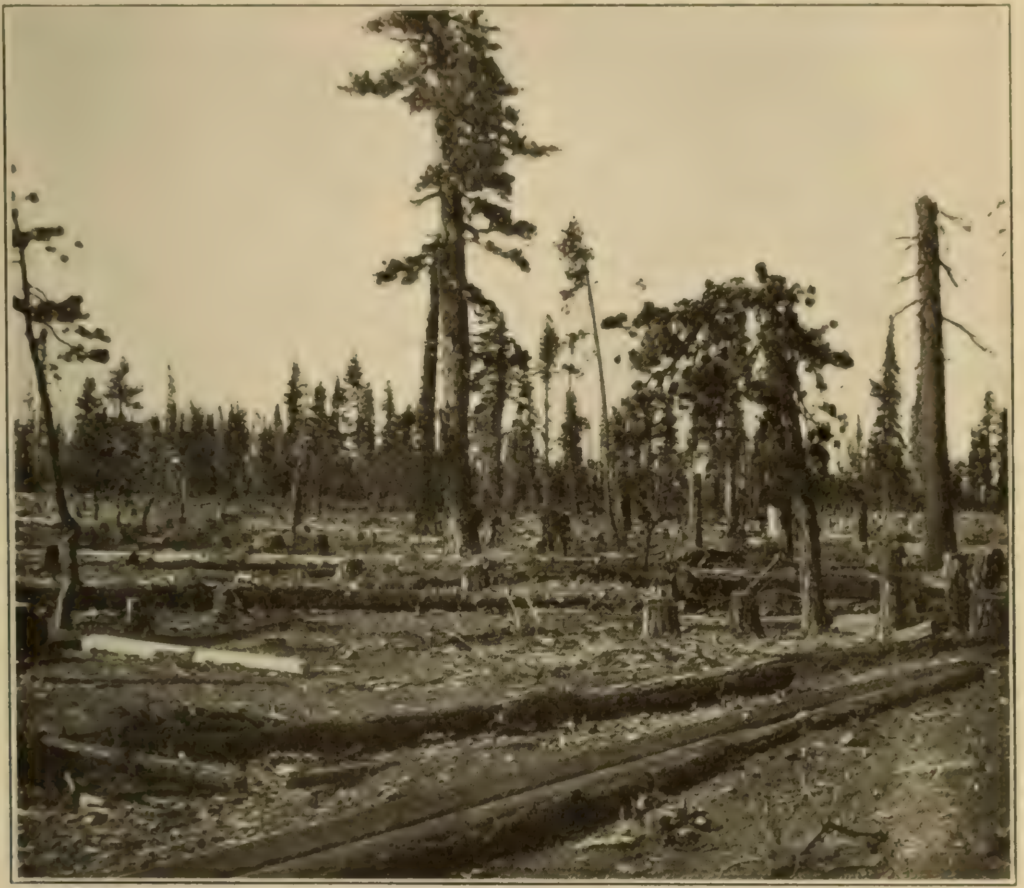

PLATE IX. Waste in logging.

Unused chute poles and long merchantable sections of timber left in the woods to rot. Several trees have been broken by careless felling. Note also the waste from high stumps. A large per cent of this waste could have been utilized at a profit. Several thrifty seed trees would have been left if care had been used in felling. Many of the chute poles could be cut into ties for the logging railroad.

The unnecessary waste can be still further decreased by reducing the height of stumps to from twelve to eighteen inches. Stump heights in this locality have already been lowered from 5 feet on the first cuttings, made forty years ago, to from 2 to 2½ feet at the present time and the limit has not yet been reached. It has been demonstrated on the National Forests that it is entirely practicable to cut down to a height of twelve inches, and the increase in stumpage prices is forcing the lumbermen to waste as little as possible. More care should be used in felling to prevent smashing the top logs. The slash could be more completely utilized for cordwood.

Disposal of Slash.

Nothing was done with the slash on the old cuttings. The branches were not lopped from the tops and the débris was left in a jumbled mass. It has decomposed fairly well, however, and at the present time does not constitute a serious fire menace.

In recent years, the company has utilized a large part of their slash by cutting into cordwood. The tops and larger branches are taken and the rest is left flat on the ground, where it will decompose more rapidly than when it was not lopped. It could be more closely utilized by taking the branches down to a smaller diameter. The remainder should either be more completely scattered or piled and burned each year.

Conclusions.

The Verdi Lumber Company is not practicing conservative forestry. It is cutting the timber without regard to increment. No attempt is made to produce a future crop. The present diameter limit takes practically everything, leaving the area denuded. No seed trees are left to reseed the area. No system of protection or management has been established.

The timber is being closely utilized. Stumps are low, and tops are taken to a small diameter. The slash is cut into cordwood. Old chute poles are cut into ties. The stump height should be still further reduced and more of the slash should be used for cordwood.

STANDARD LUMBER COMPANY.

In General.

The timber holdings owned or controlled by the Standard Lumber Company are located in townships 2, 3, 4 and 5 north, ranges 15, 16, 17 and 18 east, Mount Diablo meridian, Tuolumne County. Their holdings comprise 30,980 acres of timber. They own the land and timber on 15,661 acres, and the timber only on 15,259 acres. Approximately, 5,000 acres have been cut over. The company maintains its offices in Sonora. There also are located its sash, door and box factories. Three sawmills, located at Cold Springs, Empire Mill and South Forks, respectively, are operated by the company. These mills are all situated in the timbered area and, unlike the other companies investigated, where logs are hauled to some point and sawed into lumber, the timber is sawed in the woods. The company also owns two logging railroads; one the "Empire City Railroad," a 30-inch narrow gauge, and the other "The Sugar Pine Railroad," a 56-inch broad or standard gauge. Their operation will be discussed in detail later in this report.

The topography varies from rolling to steep. The area is traversed by small creeks which flow into the north fork of the Tuolumne River from the east and west.

The soil is a deep, moist, sandy loam, with an outcropping of granite boulders at infrequent intervals and a humus covering that varies in depth from ¼ to 1 inch. In many places, however, the humus is entirely absent.

The Standard Lumber Company cuts a great deal of Government timber, of which there is quite a quantity on the Stanislaus National Forest, and also buys timber on adjoining lands.

It will take about two years to finish up the operations in the Empire Mill—Gold Springs locality—and then cutting will be commenced on the properties farther north and west.

Fire and Slash.

This company has no fire protection system of patrols and no attention whatever is paid to the disposal of slash excepting in the case of Government timber, where the Forest Service regulations compel them to pile brush and in general clean up the area.

In this region where the company cuts so much timber belonging to others, one could not very well compel them to pile brush. However, a little foresight on the part of the owner when issuing a contract for timber, inserting a clause to have brush piled, would change an area which is now a fire menace to one where the danger from fire is reduced to a minimum.

The company is very careful, and every measure within reason is taken to avoid large fires. Prompt action is taken to extinguish all fires, especially in the vicinity of the mill and logging operations. Orders have been issued to cease everything in case of fire, and fight. This was amply proven on August 22, 1912, when the whole mill force at Empire Mill turned out to fight a fire of 30 acres.

Another important feature in the prevention of fires is the practice of watching logging donkeys. When it becomes necessary to move donkeys, each is followed by six or eight men to put out any fires which may be started. This is an extra precaution and one not always practiced by lumbering companies, for all donkeys as well as locomotives are equipped with modern spark arresters of the forced draft type.

"Log trails" coming down a chute oftentimes start fires due to friction, but men are always either riding the "trails" or going back up the chute in a "boat" and thus usually detect and put out fires so started. But logging operations in this locality will cease in two years and the slash on the entire logged area is in a bad way for future fires.

All the way from Longbarn to Bridgeport, along the beautiful Mono road, this menace is particularly noticeable. More especially does this apply to the area extending one half mile on each side of the road from Bald Mountain to Niagara.

The leaving of the logged-over area in this condition not only makes it very dangerous in case of fire, but also spoils the beauty of the road. The Government requires that a strip of timber 100 feet wide be left on each side of the road on its timber sale areas in this locality.

The Standard Lumber Company has cut all its timber near the Mono highway, leaving a desolate waste that one, riding or driving, cannot forget until reaching the summit. Trees could have been left, with very little expense, at least 30 to 50 feet on each side of the highway. In its present state the whole scene is an eyesore.

To further discuss the dangerous conditions existing here, one must bear in mind the topography of the tract and its distance from the nearest community. The holdings are located on the slopes of Dodge Ridge and Bald Mountain, which slope toward the north fork of the Tuolumne River. With the slash in its present dangerous condition, fire would meet with little resistance until it reached the Stanislaus River.

Sonora, the nearest town, is 26 miles distant, and in all probability a sufficient crew of men could not be transported to the danger zone in time to check its spread. In the mean time, a great deal of government as well as privately owned land would be destroyed. It is essential for the safety of these holdings that this slash be burned.

Forest and Ground Covers.

The forest cover consists of manzanita, deer brush, snow brush, bear clover, coffeeberry, chinquapin, greasewood, grasses, and ferns. As a whole, the cover and humus conditions are exceptionally good except on lava ridges, where it is usually absent.

The soil of the major part of the type is a deep, moist, sandy loam and is in good condition for natural reproduction, except the burned-over areas. In the white fir-cedar type the forest cover and ground cover are in good condition. On this type the forest cover consists of manzanita, western chokecherry, deer brush, snow brush, bear clover, grasses, and ferns. Humus conditions are good excepting on steep slopes, where it is usually absent.

The forest cover grows very thick on cut-over areas located near the tops of ridges and the lava beds.

Logging.

Logging operations are similar to those of any other steam logging proposition. Trees are felled, limbed, bucked into logs and yarded to the chute by means of donkey engines. From here the "log trail" is pulled down the chute by the bull donkey to the landing, and either rolled directly to a car and pulled up an incline to the log dock in the mill and sawed into lumber, as at the Cold Springs mill, or is loaded on to a narrow gauge car, hauled to the mill landing and rolled into the mill on the log deck and sawed, as at the Empire mill. The company has no log pond, but washes the logs by means of a 2-inch fire hose. A minimum diameter limit has been established, below which no trees shall be cut.

Pine is logged exceeding close, but white fir and cedar is generally left unless special orders are received for cedar ties. A second cut is not contemplated, so no rotation of crops has been established, and the annual cut is made without reference to the increment.

Waste in Logging.

The chief waste noted on this tract was that of the chute poles. No effort is made to choose non-commercial species for these poles. Many good sugar and yellow pine logs are used and then left to decay in the woods when operations cease. The company believes that the injury to saws and machinery in handling chute poles, which usually have sand and small stones pressed into them, is a greater expense than the sawed timber is worth. This is perhaps true, but it has been demonstrated by other companies that non-commercial species make satisfactory chute poles, and can be utilized later for ties and thus prevent unnecessary waste.

Aside from this waste, however, the timber is being closely utilized. Trees are carefully felled in order to smash as little as possible and the tops are taken down to a diameter of ten inches. Very few merchantable sections have been left in the woods. Stumps are cut down to a height of 18 to 20 inches.

As would naturally be expected with steam logging, this area is considerably torn up by snaking the logs from the woods to the chutes. On their own lands, the company pays no attention to second growth or reproduction.

Yarding lines are strung with the view of reaching the greatest number of logs from a single setting. This practice naturally causes considerable unnecessary damage to seedlings, saplings and poles. Logs snaked through young thickets smash or uproot everything in their path. The cables are heavy and nothing smaller than a tree 10 inches in diameter is looked upon in the nature of an obstruction. This form of damage can be practically eliminated by a more judicious selection of donkey sites and by more frequent settings. Some additional expense would be incurred but, in the long run, the more conservative and less destructive practice would pay.

Fungi and Insects.

No extensive body of fungi killed timber was found. On the whole, this property is quite free from such depredations. Cedar, however, is in bad condition, but this is a general defect that exists pretty much throughout its natural range in California. But little is known of the fungus attacking cedar, and no attempt has been made to determine practical methods for its control. There is an opportunity for much practical work in this field of investigations. Many problems need the earnest attention of a plant pathologist, and provisions should be made whereby the Forestry Department can undertake, in a systematic manner, a thorough study of fungi affecting the merchantable species of California.

Forest insects, detrimental to standing timber, have destroyed no timber worthy of mention. Various species of bark borers were noted in individual trees. Their numbers were not sufficient to kill groups of trees, and no old "deadings" were observed.

Second Growth.

Several one quarter acre sample plots were taken on representative cut-over land of different ages to show more plainly the actual amount of reproduction coming in. The number of trees over one inch in diameter were counted and tallied by species. The resulting figures show that enough second growth is present on most of this tract to produce a fairly good future crop if fire is kept out. A study was also conducted of the rate of growth of the reproduction. These figures serve as an indication of the length of time that must elapse before the area will again be ready to cut.

Sample Plot No. 4—7 year cutting.—Yellow pine is coming in very thickly, closely followed by sugar pine and cedar. The area is badly in need of protection for a fire now would most certainly destroy the growth.

The amount of second growth is as follows:

Species—	Number.
Sugar pine, 1 to 6 inches in diameter	61
Yellow pine, 1 to 6 inches in diameter	62
White fir, 1 to 4 inches in diameter	29
Cedar, 1 to 4 inches in diameter	31

Rate of growth as determined by stem analysis of an average tree from the area showed the following: Sugar pine, 34 years of age, 3.2 inches diameter outside bark at stump (1 foot high) and a height growth of 13.5 feet.

Sample Plot No. 3—7 year cutting.—Yellow pine very thrifty here also. Amount of growth as follows:

Species—	Number.
Sugar pine, 1 to 6 inches in diameter	40
Yellow pine, 1 to 9 inches in diameter	55
White fir, 1 to 7 inches in diameter	25
Cedar, 1 to 4 inches in diameter	14

Rate of growth on above: Yellow pine, 37 years of age, 4.5 inches diameter outside bark at stump height, and a height growth of 15 feet.

Sample Plot No. 2—5 year cutting.—Yellow pine again predominates with a good thrifty growth. Amount of growth:

Species—	Number.
Sugar pine, 1 to 5 inches in diameter	83
Yellow pine, 1 to 7 inches in diameter	190
White fir, 1 to 7 inches in diameter	15
Cedar, 1 to 4 inches in diameter	30

Rate of growth: A yellow pine, 33 years of age had a diameter of 3.15 inches diameter outside bark at one foot stump and a height of 12.3 feet.

Sample Plot No. 1—5 year cutting.—This area resembles sample plot No. 2 a great deal in character, the yellow pine and sugar pine being present in goodly quantities. Amount of growth:

Species—	Number.
Sugar pine, 1 to 5 inches in diameter	142
Yellow pine, 1 to 5 inches in diameter	70
White fir, 1 to 6 inches in diameter	111
Cedar, 1 inch in diameter	1

Rate of growth: A sugar pine, 26 years of age, had a diameter of 3.0 inches outside bark at one foot stump and a height growth of 10.5 feet.

Reproduction on Recently Cut-over Land.

The purpose of these reproduction studies on recently cut-over land is to determine the amount of reproduction and the number of thrifty trees left on the ground after logging. A comparison of these figures with the stand tables made in the virgin timber shows that from 50 to 75 per cent of the reproduction is destroyed during logging operations.

In each case a plot of one quarter acre was laid off. The diameter and height of each stump was measured and with the chaparral and standing trees over 1 inch in diameter was accurately plotted on a map. The seedlings (under one inch in diameter) were counted by species.

The following tables were compiled from these figures. It needs only a glance at these tables to perceive that no provision is being made for a future crop:

REPRODUCTION ON RECENTLY CUT-OVER LAND.

Plot No. 1.

Stumps.			Species over 1 inch in diameter.					Seedlings.				Remarks.
								1 to 6 feet in height.		Under 1 ft. high.		
Species.	Height (feet).	Diameter outside bark (inches).	Diameter breast high (inches).	Sugar pine.	Yellow pine.	White fir.	Cedar.	Species.	Height (feet).	Species.	Number.	
Yellow pine	3.1	22	2			3		Sugar pine	1.5	Sugar pine	10	
Yellow pine	2.0	27	3			3		Sugar pine	2.4	Yellow pine	4	
Yellow pine	3.3	25	4			1		Yellow pine	1.4	White fir	56	
Yellow pine	2.5	23	5	1			1	Yellow pine	2.0	Cedar	4	
Yellow pine	2.3	12	6		1	1		Yellow pine	1.3			Torn and smashed.
White fir	7.1	36	7			1						Girdled and dying.
			8		1							Girdled by guy lines.
			14		1							
			18		2							
			20		1							

Plot No. 2.

Species.	Height (feet).	Diameter outside bark (inches).	Diameter breast high (inches).	Sugar pine.	Yellow pine.	White fir.	Cedar.	Species.	Height (feet).	Species.	Number.	Remarks.
Sugar pine	2.75	48	24				1			Sugar pine	6	Dead top.
Yellow pine	3.0	46								Yellow pine	3	Area is being reseded by timber on adjacent government land.
Yellow pine	2.75	50								White fir	7	
Yellow pine	3.0	38										
Cedar	2.5	47										
Yellow pine	2.1	40										
Yellow pine	2.5	28										

Plot No. 3.

Sugar pine	2.8	42	2			1		Sugar pine	1.5	Sugar pine	22	
White fir	2.5	33	4			1		Sugar pine	1.3	Yellow pine	6	
White fir	2.1	19	20				1	Sugar pine	1.7	White fir	54	Dead; badly burned at butt.
Cedar	2.1	26	22		1			Sugar pine	2	Cedar	26	Top broken; alive.
White fir	2.5	30	23			1		Sugar pine	1.5			Top broken; dead.
White fir	2.8	40	25			1		Sugar pine	2.0			
			26			2		Sugar pine	2.0			Both dead and smashed.
			34			1		Sugar pine	1.0			Top broken; dead.
			36			1		Sugar pine	1.0			Shaky butt; alive.
			38			2		Yellow pine	3.0			Dead.
			42			1	1	Yellow pine	1.7			White fir dead; cedar alive, burned at butt.
								Yellow pine	2.0			
								White fir	1.3			
								White fir	1.5			
								White fir	3.0			Area needs protection from fire.
								White fir	2.0			
								White fir	2.5			
								White fir	2.0			
								White fir	1.1			
								Sugar pine	3.0			
								Sugar pine	3.0			
								Sugar pine	3.0			
								Sugar pine	3.0			

Conclusions.

The most important condition to consider on this tract is that of disposal of old as well as new slash. The entire cut-over area is in a dangerous condition, especially in the vicinity of the Mono highway. The menace is increased by the fact that logging operations will soon cease and help will not be available in case of fire. The slash, in at least the most dangerous locations, should be piled and burned before the company leaves this vicinity.

Forestry is not practiced by this company. The cut is made without reference to yield. The lands are not adequately protected from fire, and no rotation of crops is carried on. No attention is paid to the producing of a second crop, and no seed trees left to reseed the land. Natural reproduction is excellent in this locality, and an adequate system of protection would be sufficient to insure at least a fair future stand of timber.

WESTSIDE LUMBER COMPANY.

In General.

The Westside Lumber Company, successors to the Westside Flume Lumber Company, own 54,670 acres in the central part of Tuolumne County. Of this 39,590 acres are timber land and 15,080 acres have been cut over. The original company commenced cutting operations in 1900 and continued until 1903, at which time the present company obtained possession. The tract, which is located on the drainage basin of the Tuolumne River, is rough and mountainous, cut by narrow cañons and small tributary streams heading in this locality. The elevation ranges approximately from 3,400 to 5,500 feet above sea level. Logs are hauled from the camps to the mill at Tuolumne, a distance of 28 miles, by a narrow gauge railroad. The mill has a capacity of 250,000 feet board measure per day. From here the finished products are shipped via Sierra Railroad to Oakdale and thence via Southern Pacific Railroad to destination.

Fire

Several bad fires have occurred on this tract in recent years. The most serious one burned over 600 to 800 acres near "Little Chicago," about five years ago. All the second growth, composed chiefly of yellow pine and white fir, with the exception of occasional seedlings which were protected by big rocks, was destroyed and chaparral is slowly gaining possession of the area.

Another bad fire broke out this summer (1912) near Camp. No. 22, burning over an area of 500 or 600 acres. The soil cover and reproduction were entirely destroyed and three or four inches of ash cover the ground in most places. Unless this area is planted it will undoubtedly remain a waste and be taken possession of by chaparral.

The locomotives and donkey engines, though equipped with spark arresters, have been the means of causing several fires. Several have been due to incendiarism, but the offenders were never caught.

No organized system for protection is maintained. However, the company endeavers to prevent fires as far as is possible without such a system. In addition to equipping the locomotives and engines with spark arresters, the trainmen, grading crew and other employees have strict orders to put out all fires and the whole crew has been called out on several occasions. No patrol is kept on the railroad right of way. When a fire is too large to be handled by the section or grading crews, a general alarm is sounded and the entire woods crew responds. It is usually fought by means of trails and back-firing.

At least two men, whose duties are purely patrol, should be hired during the summer months. The company would then be insured against a repetition of disastrous fires such as the two described above. These men could locate a fire and get a crew to the danger zone before it gained headway.

Forest Cover.

Several species of chaparral were found in this locality. Manzanita occurs in small patches in openings of the forest and occasionally along old roads and railroad beds. Bear clover is thickly scattered over the entire timbered area, especially in the openings. As a rule, seedlings will not grow under thick bear clover. Deer brush and buck brush occur in a few scattered patches along with manzanita, near old chutes and tops of ridges. Sorrel and mullen grow along the railroad, but do not interfere with reproduction. Scrub or mountain oak, elderberry, gooseberry and aspen, with various small flowering plants, occur in openings on the slopes, beside the streams and in the canyons.

Grazing.

The Westside Lumber Company leases its cut-over land for grazing purposes. A policy similar to that of the government has been adopted which prevents overgrazing the allotted range. Approximately 10,000 acres are used for this purpose. Several drift fences have been built, and as grazing is permitted only during the summer months, the injury to young growth is reduced to a minimum. The stockmen strongly oppose the burning of cut-over land for, when it is done, the carrying capacity of the range is reduced. Since the stockmen are anxious to graze as many head per acre as possible, they offer active assistance in fire detection and protection and, if necessary, in fighting fire.

Logging.

Because of the rough character of the country logging is done entirely with donkey engines. The original company logged under a selection system, removing only the largest and best trees, and a good pole stand, with an abundance of reproduction, remains. The older cuttings, up to 1905 or 1906, of the present company, are in much the same condition, but as operations have proceeded north into townships 2 and 3 north, range 17 east, a smaller cutting diameter has been adopted. As a result, in a region where white fir and yellow pine are about on a par for predominance in the forest type, white fir and cedar are forming the principal components of the second crop.

Only one logging camp is run at a time. The logs are hauled up greased chutes to the landing. These chutes are usually built of white fir, but yellow and sugar pine are oftentimes used. When operations are through, the fallers buck up the good pine and haul it in the same as other timber, or if not too far to move, it is used in other chutes.

There is no standard diameter cutting limit. It depends on the market and demand. If the company has a big order for cedar, orders are issued from the office to cut anything worth taking, fence-post material, etc.; the same is true of other species. However, during the investigation no trees under 14 or 18 inches were being cut.

Waste in Logging.

An unusual amount of tops of large diameters are smashed in falling, due to timber being felled downhill. This is often unavoidable, but in many cases it is the result of carelessness or indifference on the part of the faller. A tree is broken more or less in merely falling, but to make it worse, another possible log or two is smashed by sliding 100 to 150 feet down the slope and crashing into other timber.

There is also a great unnecessary waste in the logging chutes. All but the best yellow pine poles are left to decay in the woods. Many of these poles could easily be cut into ties for their railroad.

The chief damage is undoubtedly that done to the young growth by the yarding operations. Much of this is unavoidable, but the damage is great because of the thickness of the young growth. Young trees are uprooted, broken and bent over. The soil is badly plowed up, killing whatever reproduction was present and leaving openings in the thick stands of yellow pine.

Sample plots were taken on representative cut-over land in order to show graphically the actual waste. Each sample plot represents one quarter acre of cut-over land. The species of each stump was noted, its diameter and height were taken; the length of the unused top and the unused merchantable section (or length of top down to a 6-inch diameter) were measured. It may be seen from these measurements that a merchantable section ranging from 12 to 26 feet in length was left in each top. Some of these sections were broken by careless felling, but a good log could have been secured from the others. Each tree over 6 inches in diameter left standing was also measured and its condition noted. These figures show that no sound trees of sufficient size to reseed the area have been left.

WASTE IN LOGGING.

Sample Plot 1.

Stumps.			Unused tops.		Unused merchantable section.		Trees 6 inches and over in diameter left standing.			
Species.	Diameter outside bark, (inches).	Height (feet).	Total length of top (feet).	Diameter outside bark at butt end (inches).	Length to 6 inch diameter (feet).	Diameter outside bark at butt end (inches).	Species.	Diameter breast high (inches).	Condition.	Remarks.
Yellow pine	30	2.5	52	18	37	18	White fir	6	Good.	*Unused portion of yellow pine, 36-inch diameter, badly smashed. Unused portion of yellow pine, 47-inch diameter, badly smashed; no good.
Yellow pine*	36	2.4	62	19	40	19	White fir	8	Good.	
Cedar	48	3.2	58	20	38	20	White fir	7	Good.	
Cedar	39	2.9	53	18	34	18	Yellow pine	6	Good.	
Sugar pine	52	3.0	63	22	42	22	Yellow pine	6	Good.	
Yellow pine†	47	2.8	68	26	54	26	White fir	7	Good.	†This area was covered with a thick stand of yellow pine.
Sugar pine	28	2.5	46	16	28	16	Yellow pine	12	Good.	
							Yellow pine	14	Good.	
							Yellow pine	10	Good.	
							Sugar pine	8	Good.	
							Sugar pine	6	Good.	
							Yellow pine	7	Good.	
							White fir	6	Good.	White fir saplings and poles.
							Sugar pine	8	Good.	

Sample Plot 2.

Stumps.			Unused tops.		Unused merchantable section.		Trees 6 inches and over in diameter left standing.			
Species.	Diameter outside bark, (inches).	Height (feet).	Total length of top (feet).	Diameter outside bark at butt end (inches).	Length to 6 inch diameter (feet).	Diameter outside bark at butt end (inches).	Species.	Diameter breast high (inches).	Condition.	Remarks.
Sugar pine[1]	43	2.5	37	12	11	12	Cedar	48		[1] O. K. in form but poor.
Yellow pine[2]	29	1.5	34	14	18	14	Oak	30		[2] Crooked; top broken. Smashed.
Yellow pine[3]	54	2.0	58	22	34	22				[3] Badly smashed.
Yellow pine[4]	51	2.5	62	24	36	24				[4] First log fair, rest smashed.
Yellow pine[5]	30	1.3	48	20	24	20				[5] Badly smashed; beyond measuring.
Yellow pine[6]	36	1.2	57	24	34	24				[6] Forked at 24 inches, making top extra long.
Yellow pine[7]	44	2.9	55	22	30	22				[7] Badly smashed.

NOTE. This area is located on steep slope, hence in felling nearly all tops over 24 inches in diameter were smashed. Eighty acres in this vicinity is in the same condition.

Disposal of Slash.

No attempt is made to dispose of the slashings. It is considered too great an expense to pile and burn, and the problem is handled in this manner. Every fall, after the first rains, their dangerous cut-over areas are burned broadcast. It is the opinion of the company that this method does no damage to reproduction or ground cover at this season of the year. They believe that while it may kill many seedlings, they will come up much faster the next year because of the improved condition of the soil. Nearly all of their cut-over lands of the past 6 or 7 years have been burned over, and taken as a whole, are in excellent condition to produce a future crop, providing that fire is kept out.

Fungus and Insect Damage.

There is apparently no damage due to these agents with the exception of the unknown, or little known of, fungus which causes the perforation of cedar. All cedar seems to be subject to this fungus. The larger trees, and more or less the medium sized ones also, are often riddled as if by an insect. However, there seems to be a ready sale for cedar for use in making ties, telphone poles, and fence posts. The quality of cedar in this region is better than the average.

Reproduction.

Sample plots of one quarter acre each were taken on the various aged cut-over areas in order to show exactly what is coming in to form the second crop. The number of each species present was determined and the diameters measured. A stem analysis was then made of a tree of average size for each plot. It was cut into one-foot sections and the age of each section was determined by ring counts. These figures serve as an indication of the rate of growth of the reproduction and give an idea of the length of time that must elapse before the cut-over land will again be ready to log.

Sample Plot No. 1—5-year cutting.—This area is rapidly being reforested with yellow pine, sugar pine and cedar, and is in good condition for a second crop. The amount of second growth is as follows:

Species.	Number.
Sugar pine, 1 to 6 inches in diameter	28
Yellow pine, 1 to 11 inches in diameter	49
White fir, 1 to 6 inches in diameter	39
Cedar, 1 to 4 inches in diameter	28

Rate of growth: for the average tree, a yellow pine of 4.5 inches diameter at one foot from the ground was taken. This tree had a total height of 13.1 feet and was found to be 30 years old.

Sample Plot No. 2—6 year cutting.—This area was also in excellent condition to produce a second crop. The amount of second growth was as follows:

Species.	Number.
Sugar pine, 1 to 5 inches in diameter	29
Yellow pine, 1 to 14 in diameter	106
White fir, 2 inches in diameter	1
Cedar, 1 to 6 inches in diameter	15

Rate of growth of area as determined by stem analysis: Cedar, 33 years of age, 5.3 inches diameter stump height and 12.3 feet high.

Sample Plot No. 3—10 year cutting.—Portions of this area were taken possession of by chaparral. The area has been burned over but conditions have been so ideal, the ground being flat or rolling and being near an abundance of timber, that the area is rapidly being reforested by yellow pine.

Amount of second growth found (the area will not show many seedlings because of a portion being solely chaparral):

Species.	Number.
Sugar pine, 1 to 9 inches in diameter	34
Yellow pine, 1 to 8 inches in diameter	134
White fir, 1 to 8 inches in diameter	18
Cedar, 1 to 10 inches in diameter	36

Rate of growth: Sugar pine, 34 years old, 6.5 inches diameter stump height and 16.4 feet high.

Sample Plot No. 4—12 year cutting.—Has a good pole and sapling stand with many trees 18 to 30 inches in diameter to reseed the area. No fires have been through here and the area is in fine shape for a second crop. Amount of second growth found:

Species.	Number.
Sugar pine, 1 to 8 inches in diameter	24
Yellow pine, 1 to 13 inches in diameter	39
Cedar, 1 to 4 inches in diameter	104

Rate of growth: Yellow pine, 15 years of age, 5 inches diameter stump height and 17.2 feet high.

Many seedlings, saplings, and second growth in general were destroyed in logging. In many cases this is unavoidable but, as a rule, more care could have been taken.

In comparison with seedling counts made in virgin timber, the cut-over seedling counts show a destruction of 60 to 75 per cent of the undergrowth.

Reproduction on Recently Cut-over Land.

Reproduction studies were made on recently cut-over land to determine the amount of reproduction and the number of trees left after logging. Each sample plot contains one quarter acre and was selected to represent average conditions. The diameter and height of each stump was taken and its species noted. Stumps, chaparral and trees over 1 inch in diameter were accurately plotted on a map, while the seedlings were counted and recorded by species. The results show that no seed trees of the valuable species have been left to reseed the land. Enough young growth is present to produce a fair stand if the area is well protected, but a fire of any consequence would be disastrous.

The following tables were compiled from this data and showed at a glance the deplorable lack of thrifty seed trees:

REPRODUCTION ON RECENTLY CUT-OVER LAND.

Stumps.			Species over 1 inch in diameter.					Seedlings.				Remarks.
								1 to 6 feet in height.		Under 1 ft. high.		
Species.	Height (feet).	Diameter outside bark (inches).	Diameter breast high (inches).	Sugar pine.	Yellow pine.	White fir.	Cedar.	Species.	Height (feet).	Species.	Number.	
Plot No. 1.												
Yellow pine	2.8	40	1	3	3	6	9	White fir	3	Sugar pine	17	Many yellow and sugar pine and white fir saplings, 1 to 7 inches in diameter, which were dead and broken, due to logging, found on this plot.
Yellow pine	2.2	36	2	1	2	5	8	White fir	4	Yellow pine	56	
Yellow pine	2.2	38	3	2	3	5	2	White fir	5	White fir	3	
Yellow pine	2.3	27	4	1		3	2	White fir	6	Cedar	42	
Yellow pine	2.4	52	5		1	3	2	White fir	4			
Yellow pine	2.4	25	6	1		3		White fir	3			
Yellow pine	2.5	43	7		1	2	1	Yellow pine	2			
Yellow pine	1.8	24	56				1	White fir	3			
White fir	1.8	10	60				1	White fir	3			
Cedar	2.0	32						White fir	5			
White fir	2.1	11						Sugar pine	6			
Yellow pine	2.5	21						Cedar	5			
								Yellow pine	6			
								Cedar	1			Shaky and burned butt.
								Cedar	1.5			Dead top; fairly good.
Plot No. 2.												
Yellow pine	3.0	50	1	3	2	6	7	White fir	5	Sugar pine	15	A great deal of slash on Plot No. 1. and much of the second growth is broken, bent, and dying because of logging.
Yellow pine	2.6	40	2	1	2	1	8	White fir	4	Yellow pine	10	
Yellow pine	2.3	44	3	2	1	1	2	White fir	5	White fir	97	
Sugar pine	2.4	50	4	2			4	Sugar pine	4	Cedar	92	
White fir	2.5	40	5	1		1	2	Cedar	2			
Yellow pine	2.0	40	6				1	Sugar pine	3			
White fir	2.5	30	7	1		1		Cedar	5			
White fir	2.8	38	8		1			Cedar	4			
			10			1		White fir	2			
			18			1		White fir	5			
			20			1		Cedar	4.5			
			26			1		White fir	6			
			36			1		White fir	5			
								Cedar	4			
								Cedar	2			
								Cedar	3			
								Sugar pine	2.5			

Conclusions.

The Westside Lumber Company is not practicing conservative forestry. Their cut is made without reference to the yield. No system of management or protection is in operation. Future yield is being left to chance.

No diameter limit has been established. Practically everything is cut from which a log can be secured. Although the reproduction is good on most of the cut-over land, there are denuded areas where planting will be necessary to produce a second crop.

More care should be exercised in felling timber. The present method of felling down hill causes a great amount of damage.

The system of fire protection now in operation is inadequate. At present, unless a fire is large and endangering company timber or improved property, it is given but little attention and is left to burn itself out.

THE HUME-BENNETT LUMBER COMPANY.

In General.

The Hume-Bennett Lumber Company, successors to the Sanger Lumber Company, own approximately 22,240 acres of land in the southeastern part of Fresno County. Of this amount, 5,280 acres are timber land and 16,960 acres have been cut over. The original company commenced cutting in 1890 and continued until 1905 when the present company took possession. The elevation of this tract ranges from 5,000 to 6,200 feet above sea level. The country, with the exception of a few basins and broad, rolling hilltops, is rocky and mountainous with narrow cañons and steep-sided ridges.

Logging operations center about Hume, situated on the shores of Lake Hume, 58 miles from Sanger. The lake was artificially made by damming a natural basin into which flow Ten-mile Creek and one or two smaller creeks. It is used as a mill pond and to furnish water for the flume between Hume and Sanger.

Fires.

With the exception of one that burned over between 80 and 100 acres of cut-over land within a half mile of Hume about three years ago, there have been no bad fires on this tract in recent years. This fire was checked before it reached the timber, but a fine stand of yellow and sugar pine reproduction was destroyed and the area is now in possession of the chaparral.

An inadequate system of protection is maintained. No general system of patrol has been established, but the railroad right of way is patroled by a force of two to six men during the dangerous season. Although the locomotives are equipped with spark arresters, the largest per cent of the fires occur along the right of way. With this system most of the fires are discovered in their incipiency and can be handled by the patrol. In the case of a large fire, prompt assistance can be secured for the camps are within a radius of five miles of the sawmill and are connected by telephone.

While such a method of protection is perhaps adequate at the present time, it is only a matter of a few years before the company will cease operations in this locality. The entire tract is in a dangerous condition because of the unburned slash. This danger increases yearly and will be at a maximum at just the time the company ceases cutting and withdraws its patrol. If these lands are not protected in the future the possibility of securing a second crop is extremely remote. With the area in its present condition almost any sort of fire would destroy practically all reproduction. This is one of the strongest arguments for State protection of the cut-over lands. An efficient patrol maintained by the State would eliminate these disastrous fires and insure a future supply of timber to the people of California. A large per cent of the cut-over lands are fit for nothing but the growing of timber and the lumbermen will not pay taxes and protect them for the length of time necessary before another crop can be harvested. Much of this land will eventually revert to the State. It is obvious that the protection of this land is of great value. "The indirect protective influences of the forest, the continued supply of a certain amount of useful products, the maintenance of certain industries which could not otherwise continue to exist in this region, are all of great advantage to the people and contribute largely to the actual creation of wealth and prosperity. They justify public forestry even if they involve a continued outlay of money."*

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*Henry S. Graves: "Principles of Handling Woodlands."

Forest Cover.

The species of chaparral found on this tract are manzanita, buckthorn, chinquapin, snow brush and buck brush. It does not grow in abundance in the virgin forest, but occurs in the openings, on the tops of ridges, above timber, and on cut-over land. As yet, the forest cover is doing no harm to reproduction. Yellow pine, white fir and cedar are making a rapid growth on the cut-over lands and most of the chaparral will probably be driven out in a few years.

Ground Cover.

The ground cover is composed of needles, duff and humus, forming a layer several inches in thickness throughout the entire forest. Various small flowering plants such as the tiger lily grow in the moist situations. The cover is in excellent condition and with the sandy loam soil makes ideal germination conditions.

Logging.

The operations of the original company were very destructive. They removed only the best logs and necessarily left much valuable timber in the woods. Many of the trees were left on the "big tree" tract because the steepness of the slopes would not allow a profitable cutting. As a result, the area is now covered with a fair stand of young "big trees" and if fire is kept out, will soon resume its value as a watershed.

A more conservative policy has been adopted by the present company. An approximate diameter limit of 14 inches has been established and tops are taken down to a small diameter. The logs are yarded to the "chutes" by donkey engines or are taken directly to the landing with "high wheels." From the landings, they are hauled to Hume and dumped into the mill pond. After the lumber is sawed, it travels by flume in "clamps" to Sanger, where it is piled and shipped via Fresno on the Southern Pacific to the market.

From the standpoint of conservative forestry, the present diameter is too small. Very few seed trees are left to reseed the denuded areas. The few thrifty trees that are left after logging are taken by the tie cutters for their railroad.

Waste in Logging.

A large per cent of the large growth is destroyed by carelessness in logging. Many small trees are smashed by falling timber. Others are bent over, bark and branches are torn off, or torn up by the roots by reckless yarding. Some of this damage is unavoidable but much of it can be prevented.

Considerable timber is smashed in falling. Part of this damage could be avoided by using more care. Much of the broken timber, now going to waste, could be used for firing the donkeys.

Sample plots of one quarter acre each were taken in representative localities to show the actual waste left on the ground. The stumps were measured to determine the lengths left, which could have been utilized. Many tops were found, from which another log could have been secured, and ties could have been made from many more. The tie cutters consider the tops too knotty to hew into ties and instead go over the cut-over lands, taking the good trees that the loggers have missed. Many good seed trees would have been saved if the tie cutters were made to utilize the tops left in the woods. The following tables show the principal forms of waste. They also give an idea of the number of trees of each species over six inches, left after logging. It is from these trees that a large part of the area must receive its seed for the future stand:

WASTE IN LOGGING.

Stumps.			Unused tops.		Unused merchantable section.		Trees 6 inches and over in diameter left standing.		
Species.	Diameter outside bark (inches).	Height (feet).	Total length of top (feet).	Diameter outside bark at butt end (inches).	Length to 6 inch diameter (feet).	Diameter outside bark at butt end (inches).	Species.	Diameter breast high (inches).	Condition.
Plot No. 0.									
Sugar pine	38	3.0	35.7	12	13.7	12	White fir	12	Alive; uninjured.
Yellow pine	30	3.5	30.0	13	12.2	13	Cedar	8	Alive; dead top.
Yellow pine	28	3.0	34.6	14	6.0	14	Yellow pine	14	Dying; top broken.
Cedar	36	3.5	17.1	5	None.		Yellow pine	8	Dying; top bent.
Sugar pine	58	2.75	40.4	17	22.4	17	Cedar	28	Alive; dead top.
Cedar log	12 feet long and 39 inches in diameter.								Rather shaky; useless.
							Cedar	32	Dead on one side; shaky butt.
							White fir	12	Alive; undamaged.
Plot No. 1.									
Sugar pine	30	2.0	62.0	21	37.0	21	Yellow pine	6	Good.
Yellow pine	41	1.5	38.0	6	None.		Yellow pine	5	Good.
Yellow pine	26	2.0	41.4	12	9.4	12	Yellow pine	22	Very poor, knotty and unmerchantable.
Yellow pine	26	2.4	28.5	11	15.0	11	Yellow pine	7	Good.
Yellow pine	33	2.5	44.0	16	10.0	16	Yellow pine	8	Good.
Yellow pine	36	2.6	31.0	9	7.0	9	Yellow pine	9	Good.
Yellow pine	24	1.8	31.0	6	None.		Yellow pine	7	Good.
Yellow pine	37	2.6	46.5	18	24.5	18	Yellow pine	6	Good.
							Cedar	8	Good.
							White fir	9	Good.
							Cedar	6	Good.
Plot No. 2.									
Yellow pine	26	2.5	34	9	8	9	White fir	42	Dead.
White fir	24	2.4	41	8	10	8	Cedar	32	Good.
Yellow pine	38	2.3	44	13	16	13	Cedar	38	Good.
White fir	25	2.5	32	11	10	11	White fir	6	Good.
White fir	26	2.3	35	8	7	8			
Plot No. 3.									
Cedar	28	3.0	36	14	22	14	Yellow pine	6	Good.
White fir	30	2.8	30	16	20	16	Yellow pine	7	Broken top.
Yellow pine	20	2.7	50	15	38	15	Yellow pine	9	One half broken off by falling tree.
Yellow pine	21	3.0	46	15	30	15	Cedar	22	Good.
Sugar pine	24	2.3	38	18	18	18			
Sugar pine	32	3.0	42	17	23	17			
Cedar	44	3.6	54	21	36	21			

Disposal of Slash.

No disposal of slash is made by this company. The branches are not lopped from the tops and the débris is left in a badly jumbled mass. As a result, the entire cut-over area is in a dangerous condition. While the company remains in this locality the menace is minimized for the tract is fairly well protected, but the time is not far away when operations will cease and the company will seek other areas. A fire then would burn unchecked and do inestimable damage to the second growth. Slash is, unquestionably, the most serious existing menace to second growth and should be burned each year in order to give the land a better chance to bear another crop of timber.

Reproduction, Second Growth.

Several one quarter acre sample plots were taken on representative cut-over land of different ages to show more plainly the actual amount of reproduction coming in. The number of trees over one inch in diameter were counted and tallied by species. The resulting figures show that enough second growth is present on most of this tract to product a fairly good future crop if fire is kept out.

A study was also conducted of the rate of growth of the reproduction. These figures serve as an indication of the length of time that must elapse before the area will again be ready to cut.

Sample Plot No. 1, near Indian Basin—Cut-over in 1901. The amount of second growth is as follows:

Species.	Number.
Yellow pine, 1 to 13 inches in diameter	107
White fir, 2 to 3 inches in diameter	6
Cedar, 1 to 5 inches in diameter	12

The average tree for this tract was 3.93 inches in diameter and 14.74 feet in height.

Sample Plot No. 2—6-year cutting:

Species.	Number.
Sugar pine, 1 to 2 inches in diameter	6
Yellow pine, 1, 2 and 3 inches in diameter	5
White fir, 1 to 7 inches in diameter	12
Big Trees, 1 to 11 inches in diameter	20

The average tree was 2.96 inches in diameter and 9.72 feet high.

Sample Plot No. 3, Converse Basin—16 year old cutting:

Species.	Number.
Sugar pine, 1 to 8 inches in diameter	21
White fir, 1 to 7 inches in diameter	48
Big trees, 1 to 6 inches in diameter	9

The average tree was 3.5 inches in diameter and 14.2 feet high.

Sample Plot No. 4, near Millwood, Sequoia Lake—22 year old cutting:

Species.	Number.
Sugar pine, 1 to 5 inches in diameter	8
Yellow pine, 1 to 15 inches in diameter	56
Cedar, 1 to 10 inches in diameter	101
White fir	2

The average tree was 4.54 inches in diameter and 15.46 feet high.

Reproduction on Recently Cut-over Land.

Reproduction studies were made on recently cut-over land to determine the amount of reproduction and the number of trees left on an area after logging.

In each case a plot of one-quarter acre was laid off, stumps were measured and with chaparral and trees left, over 1 inch in diameter were accurately plotted on a map. The seedlings, those trees under 1 inch in diameter were counted by species.

The following tables were compiled to show the results of these studies on each plot:

REPRODUCTION ON RECENTLY CUT-OVER LAND.

Plot No. 1.

Stumps.			Species over 1 inch in diameter.					Number of seedlings under 1 inch in diameter.				Remarks.
Species.	Diameter outside bark, (inches).	Height. (feet).	Diameter breast high, (inches).	Sugar pine.	Yellow pine.	White fir.	Cedar.	Sugar pine.	Yellow pine.	White fir.	Cedar.	
			1	11	7	9	36	72	14	37	63	This area was formerly composed of yellow pine, white fir, cedar, and some sugar pine. Cedar and white fir reproduction abundant.
White fir	42	2.0	2			1						
Yellow pine	28	2.5	3									
Yellow pine	14	2.5	4			1						
			5				1					
			6									
			7	1		1	2					

Plot No. 2.

Species.	Diameter outside bark, (inches).	Height. (feet).	Diameter breast high, (inches).	Sugar pine.	Yellow pine.	White fir.	Cedar.	Sugar pine.	Yellow pine.	White fir.	Cedar.	Remarks.
White fir	24	2.4	1	9	9	6	5	18	11	15	107	Elevation: 5,500 feet. Reproduction is not very good, and white fir and cedar undoubtedly will be the next crop. Original stand was composed chiefly of yellow pine and cedar with subtype of sugar pine and white fir. The young growth has been damaged considerably by skidding, yarding, felling, guy lines, etc., which could have been avoided. Ground cover: 3 to 4 inches of needles and duff on top of subsoil of black loam.
Sugar pine	30	2.5	2	1			1					
Cedar	22	2.7	3									
Cedar	24	2.0	4									
Yellow pine	18	1.6	5									
Yellow pine	38	2.9	6		2							
Yellow pine	26	2.3	7	1			1					
Yellow pine	27	2.0	8									
Yellow pine	32	2.0	9		1							
Yellow pine	33	2.9	10									
Yellow pine	37	3.0	11									
Cedar	25	2.0	12									
Yellow pine	31	2.7	13	1								
Cedar	22	1.5	14		1							
Yellow pine	36	2.6	15									
Cedar	34	1.8	16			1						

Plot No. 3.

Sugar pine	38	3.0	1	29	15	87	62	33	21	62	120	This area was logged by means of big wheels, so area is pretty well cleaned. Reproduction is in good condition; butts need protection as fire would destroy it entirely.
Yellow pine	30	3.5	2	2								
Yellow pine	28	3.0	8		1		1					
Cedar	36	3.5	12			2						
Sugar pine	58	2.75	14		1							
			28				1					
			32				1					

The results of these tables in comparison with actual seedling counts in virgin timber show that about 75 per cent of all seedlings are destroyed by the present method of logging. Half of this could be avoided by using a little care, particularly in yarding.

Conclusion.

The Hume-Bennett Lumber Company is not practicing forestry on its holdings. The cut is made without reference to the future yield. The diameter limit is too small to leave sufficient seed trees. Restocking to cut-over lands is left to chance.

The entire cut-over area is in a dangerous condition. The slash has been left lying on the ground and a fire burning through this tract would destroy practically all of the second growth. Protection is necessary to insure a future stand of timber. An efficient patrol maintained by the state would insure a fair second crop to future generations. At present, the lands are in a measure protected by the company, but when operations are moved to some other locality this protection will cease, and the area will be left to the mercy of the first fire that may start.

The slash should be piled away from the reproduction and burned each year in the proper season. In this way the danger to the second growth would be greatly lessened. But fire danger can never be entirely removed. Patrol will always be necessary if we are to secure a maximum second crop from our cut-over lands. But the proper disposal of slash will minimize this menace and greatly lessen the intensity of the patrol that would otherwise be needed.

More care should be exercised in logging to save the second growth. Under present conditions, approximately 75 per cent of all the reproduction is destroyed by cutting operations. A large part of this is due mainly to carelessness and could be avoided without increased expense.

SUMMARY.

The area covered in this study consists of 552,303 acres, of which 186,758 acres have been cut over and 365,545 acres are virgin. Ten lumber companies are represented in this acreage. Because of the magnitude of the task and the limited time available, it was impossible to cover all of the private holdings, but these companies were carefully selected to represent all existing conditions in the tracts under operation, exclusive of the redwood belt. It is safe to assume that the conclusion drawn from this study will apply equally well to the entire region. None of the companies are practicing conservative forestry. The cut is being made without regard to increment. Future yield is left largely to chance. No working plans were in use.

Most of the holdings are inadequately protected from fire. Only three companies maintain a paid patrol. Two have not even equipped their engines with spark arresters. Seven companies, or 70 per cent of all those examined, do practically nothing to protect their timber or cut-over lands.

Four companies dispose of their slash. In two cases, it is piled and burned each year. In one, it is burned without piling. The fourth cuts it into four-foot lengths and sells it for cordwood. Reforestation is not being undertaken on a commercial scale. Two companies, whose holdings were not investigated, are doing some experimental planting.

The chief sources of waste are high stumps, breakage in falling, cutting even length logs, and unused tops containing merchantable lumber.

The tracts are being cut so close that most of the present owners will not consider a second crop. Two companies are developing the stock industry on their cut-over lands. These lands present a problem and as yet no definite policy has been formulated for their management.

CONCLUSIONS.

Inasmuch as the properties examined are representative, it is safe to assume that forestry is not practiced on our private lands in California. There is no state control of these lands. No laws compel the companies to log in such a way as to retain the greatest value of the lands for watersheds, or to provide for a future crop of timber in a minimum length of time. No one interest can be greater than the interests of all the State. It is obvious, however, that the lack of conservative forest management will eventually seriously interfere with the maintenance and development of those industries that depend largely upon watersheds or irrigation for their development. Forest destruction has already caused a damage of many millions of dollars, by silting up navigable rivers and reservoirs, by causing an increase of spring floods and a deficiency of water in the summer, and by the drying up of sources of water used for irrigation and for domestic purposes. This damage is already so great as to form one of the principal causes of the demand for forestry. Eventually there must be state control so that each interest may be in a measure subservient to the others. We must not permit an industry that owes its very existence to our natural resources to disappear because of corporate greed. The State should fulfill its responsibility in the matter of aid to the private owners in fire protection and taxes so that it will be possible for them to practice a system of forestry that will at least maintain the minimum of production.

The cut-over lands must be protected from fire so that they may furnish a perpetual yield, and continue to give employment to the large army that are dependent upon the lumber industry. An efficient state patrol, maintained by the State, is the only practical way to secure this protection. An appropriation is necessary to secure such a patrol.

There should be compulsory burning of slash on all cut-over lands. The presence of dry tops, branches and piles of brush in the forest constitutes the greatest menace from fires. The severity of a fire and hence, the damage done, is in direct proportion to the amount of dry litter on the ground. In addition to this, a fire becomes almost impossible to control when burning through dry brush. Burning of slash has been compulsory on our National Forests for years, and the more progressive lumber companies have followed this example. The removal of slash from our forests will greatly lessen the fire menace and consequently minimize the cost of an efficient system of protection.

PLATE X. Close utilization.

This company has very little unnecessary waste. Chute poles are made from inferior species, such as white fir. After logging operations are completed the chute poles are worked up for ties to be used on the logging railroad. Some companies use yellow pine for their chutes and leave the poles in the woods to rot when operations are finished. As a rule not more than one third of the lumber contained in a tree is actually utilized. There is considerable waste in the woods, in the sawmill, in the planing mill, and finally in cutting and fitting for use.

CHAPTER IV.

FOREST TAXATION.

I thoroughly believe that the present methods employed in handling our forests cannot continue indefinitely. Since their preservation, through wise use, is indispensable to our future prosperity, the practice of conservative forestry is inevitable; and timber owners must recognize that they may not handle their timber properties in such a way as to impoverish the whole State, and the State should recognize its responsibility in guarding against such a calamity, not by hysterical legislation but by practical demonstrations and by aiding owners in initiating constructive management. I want to see lumbermen practice forestry because it pays them to do so, not because public sentiment or the legislature may demand it. On the other hand, we shall see the time when timber owners must decide whether the practice of forestry on private lands shall be voluntary or not. There are two problems, however, that must be solved before the application of forestry principles will be practicable; these are forest protection and forest taxation. The latter will be discussed in this chapter.

General Property Tax.

The taxation of forests is governed by the general property tax. This is perhaps the oldest form of taxation and one wholly unadapted to forest investments. The difficulty is not so much with the amount, but with the method of taxation. It is not true that timber and timber lands in California are being excessively or unjustly taxed. There are single cases, perhaps, where taxation is a little excessive, but these are exceptions to prevailing conditions. The general property tax, if strictly enforced in its application to timber properties, would unquestionably result in excessive taxation, but it has not been and is not now being generally enforced. While the valuations of timber lands are higher in a few states (California being among them) than in the rest of the country, yet the general rule still applies. The escape from excessive taxation through lax enforcement of the law offers a gloomy outlook for the future for there is no assurance that the present haphazard easy going methods will continue indefinitely. There must be some guarantee against excessive taxation in the future before private owners can practice forestry and before investors will look favorably upon the reforesting of cut-over areas as profitable investment. The general property tax, in its application to forest investments, should be condemned because it forestalls any effort looking toward the introduction of forestry on private holdings, but not because the owners of such holdings have been bearing more than their just share of the burdens imposed upon them through taxation.

Change in Conditions.

The general property tax worked fairly well in the middle ages because the form of property was a fair index of its ability to pay taxes. It was satisfactory to the early colonists. Their property consisted chiefly of live stock, agricultural implements, visible improvements and primitive household and personal effects. The assessors had little or no difficulty in ascertaining the kind, quality and amount of wealth possessed by each citizen, and it was a simple matter to appraise it at its actual value. There lacked any opportunity for the concealment of wealth and the evasion of taxes.

The economic conditions of to-day have brought about wonderful changes. Our wealth is no longer easy to discover or easy to appraise. Vast sums of intangible property in the form of stocks, bonds and other securities can be easily concealed and escape taxation. Tax evasion is a common practice. For the most part assessments and oaths are fast becoming a farce. Lands and similar visible forms of property are the only forms of wealth that are taxed with some reasonable degree of accuracy. Consequently, timber and farm properties suffer under the general property tax because they are taxed while other forms of wealth escape.

Effects of Taxation.

In an effort to secure more equitable assessments and taxes it is frequently charged that the present system has hastened cutting, increased the waste in logging, prevented the reforesting of cut-over lands for another crop, and retarded the practice of forestry on private lands. According to data compiled by the National Conservation Commission these charges are not sustained by facts. The summary of some 500 replies to inquiries shows that these charges are not well founded. Scattered information from the states of Michigan, Wisconsin, Minnesota, Washington, and California shows that timber owners in those states believe taxation has some influence upon premature cutting, increased waste, and reforesting cut-over land.

Administration.

The administration of the general property tax in California is no better and probably no worse than in other states. County assessors are confronted with a most difficult task and I have no reason for believing other than that each is fulfilling his office to the best of his ability. For the most part they possess no technical skill or facilities for ascertaining the actual values of timber properties. With two exceptions (Lassen and Modoc) they depend upon declarations of taxpayers, hearsay evidence and occasional examinations that are necessarily superficial and inaccurate. Lack of uniformity, over and under valuations and general confusion is necessarily the result.

Out of 38 counties for which data has been compiled, only two have been cruised for assessment purposes; 12 have been roughly classified according to amount and quality of timber; 4 have been examined to some extent by the assessors; 12 examined annually; 2 are examined at irregular periods; and 11 are assessed according to previous valuations. Five counties accept the taxpayer's statement for the classification of timber and cut-over land. Siskiyou County, with nearly 700,000 acres of timber land, and Mendocino County, with over 500,000 acres, are among them.

Since the discussion on taxation of the forests should center on the method rather than the amount, I will only mention the latter. The data is rather amusing, if nothing else. For instance, the timber land in El Dorado County is assessed at a flat rate of $10.00 and cut-over land for $2.00, while the timber land in Siskiyou County is assessed from $6.00 to $7.00 per acre and cut-over land for $1.00. The former has 115,000 acres of timber land and 26,000 acres of cut-over land and the latter has nearly 700,000 and 139,000 acres respectively. Lassen County assesses timber land from $2.50 to $12.50 per acre; Plumas from $8.00 to $12.00, and Shasta from $5.00 to $10.00. The existing inequality of assessed values in the same county, and more noticeably in different counties for similar tracts of timber equally accessible or inaccessible, are unjust to timber owners, and to the county and state alike. While I have the assurance that valuations will be materially advanced in some counties and land now classified as "grazing" will be changed to "timber," it will accomplish but little toward securing a comparative equality. I believe state control offers the only solution.

Investigation Conducted.

During the winter of 1911 and 1912 a study of forest taxation was begun. Agents of the Board of Forestry gathered data from each forested county. The subject was discussed with timber owners and others familiar with and interested in taxes as applied to timber properties.

Special attention was paid to the methods employed in obtaining assessed valuations. Separate values were obtained for timber and logged-off lands. The highest and lowest assessments for each class were recorded. In addition to these data the total amount of timber and cut-over land, assessed as such, was compiled by counties, together with the total area of taxable land.

Alameda County.

There is no timber land in Alameda County. The assessor estimates that from 85 to 90 per cent of the total tax is received from incorporated cities. An actual examination of the land is made annually. In assessing orchard land, the fruit trees are not separated from the land. The assessed value of lands ranges from $4.00 to $600.00 per acre. The assessor estimates that these assessed values represent 60 per cent of the actual value. There are no regular rules for assessing. A raise is expected in assessed values this year. The tax rate in 1911 was $1.34 per $100.00 on land outside the cities. There are no sawmills in the county.

Alpine County.

There is only a small area of timber land in this county (6,033 acres). In assessing, the trees are not separated from the land. No cruises are made. The assessed value of the timber land is $3.00 per acre, and of the farm land $12.00 to $30.00 per acre. The tax rate in 1911 was $2.00 per $100.00. No raise in values is expected. There is one small sawmill in the county. The largest proportion of the total tax is contributed by farming land.

Amador County.

This county has considerable timber land. No cruises are made and the work is not systematized. The trees are not separated from the land. Timber land is assessed at $7.50 per acre, cut-over land at $2.50 to $3.00 per acre, and grazing land at $2.00 to $3.00 per acre. The tax rate on land outside of cities was $2.20 per $100.00 in 1911. The assessor estimates that the assessed value equals about 60 per cent of the actual value. An increase in the assessed values was made in 1911. The assessor is in favor of having the timber cruised.

Butte County.

This county has considerable timber land. An actual examination of the greater part is made annually, and part of the land is cruised by the deputy assessor. The timber land is divided into three classes, the first being assessed at $8.00 to $10.00 per acre, the second at $5.00 to $7.00 per acre, and the third at $2.50 to $6.00 per acre. Cut-over land is assessed at $1.25 to $2.50 per acre. The tax rate in 1911 was $2.30 per $100.00. The average actual value of the timber land was estimated to be about $24.00 per acre. There are no plans for reform in this county and the people are well satisfied with the present method of taxation.

Calaveras County.

There is considerable timber land in this county. The trees are not separated from the land, and no cruises are made. There is some talk of hiring a cruiser, but the county is afraid of the cost. The tax rate was $2.05 per $100.00 in 1911. The assessed value of timber land is $10.00 per acre, of cut-over land $1.25 to $4.00 per acre, and the chaparral land $2.50 to $5.00 per acre. The actual values are estimated at $8.00 to $20.00 per acre.

Contra Costa County.

There is no timber land in this county. The largest proportion of the total county tax is contributed by manufacturing corporations. An actual examination of the land is made annually. In taxing orchard land, the fruit trees are separated from the land. The tax rate was $1.50 per $100.00 in 1911. The average assessed value of the ranch land is estimated to be $35.00 per acre, of chaparral land $3.00 to $6.00 per acre, and of fruit trees $20.00 to $40.00 per acre. The assessor estimates the assessed value to be 60 per cent of the actual value. There are no sawmills in this county.

Del Norte County.

This county has a comparatively large area of timber land. Neither an actual examination nor a cruise of the timber is made. The assessed valuations have been raised about 60 per cent since 1906. In determining assessed values, the trees are not separated from the land. The timber land is assessed at $20.00 to $67.50 per acre, the average assessed value for spruce being $20.00 per acre, and for redwood about $35.00 per acre. It is estimated that 75 to 80 per cent of the total county tax comes from the timber lands. There are no plans of reform. Cut-over land is assessed at $3.00 to $5.00 per acre. The tax rate was $1.75 per $100.00 in 1911.

El Dorado County.

There is considerable timber land in this county. The county has no ownership plats and shows a great lack of system. The trees are not separated from the land. No examinations or cruises are made. The timber land is assessed at $10.00 per acre, which is a great increase over 1910. The cut-over land is assessed at $2.00 per acre and the chaparral land at $2.50 to $5.00 per acre. The tax rate was $2.00 per $100.00 in 1911. The assessor estimates that the assessed value equals 50 to

60 per cent of the actual value. The general sentiment in the county is in favor of securing a better knowledge of the timber resources. There are no sawmills in the county.

Fresno County.

This county has a small area of timber land. No cruises or actual examinations are made of the timber land, and the trees are not separated from the land. The timber is divided into two classes, the first being assessed at $12.50 per acre and the second at $8.00 per acre. The tax rate was $1.64 per $100.00 in 1911. Cut-over and chaparral lands are assessed at $1.50 per acre. The actual value of the timber land was estimated to be about $50.00 per acre. No plans of reform are being discussed, but the assessor is thinking of raising the assessed values.

Glenn County.

This county has a small area of timber land. No cruises are made and the trees are assessed at $2.00, $3.00, $4.00, $5.00, $6.00, $8.00 and $10.00 per acre. Cut-over land is assessed at $2.00 per acre and chaparral land at $2.00 and $3.00 per acre. The assessor estimates that the assessed value represents 60 per cent of the actual value. The tax rate in 1911 was $1.82 and $1.80 per $100.00, depending upon the school district. There was no talk of reform.

Humboldt County.

This county has a large area of timber land. No cruises are made and the trees are not separated from the land. Redwood land is assessed at $15.00 to $60.00 per acre, pine and tanbark oak land at $2.00 to $10.00 per acre. Cut-over land is assessed at $4.00 to $6.00 per acre. The assessor estimates that the assessed value equals about 50 per cent of the actual value, and that about 40 per cent of the total county tax was derived from timber land. The tax rate in 1911 was $1.90 per $100.00. The general sentiment of the county was in favor of cruising if it would not be too expensive.

Inyo County.

There is no timber land in Inyo County. The sagebrush land is valued at about $3.00 per acre and the farm land up to $100.00 per acre. The assessor estimates the assessed value to be about 60 per cent of the actual value. The tax rate in 1911 was $2.00 per $100.00. There are no sawmills in the county.

Kern County.

There is very little timber land in Kern county, and what is found is assessed at $1.33 per acre. Cut-over land is assessed at $2.00 to $12.00 per acre. The actual value of the timber land was estimated to be $2.75 to $3.00 per acre. No cruises were made. The tax rate in 1911 was $1.20 per $100.00. There is one sawmill in Kern County.

Kings County.

Kings County has no timber land. The grazing land is assessed at $2.50 per acre. The principal revenue of the county comes from the fruit lands. The fruit trees are assessed separately. Fruit and farm land is assessed at $40.00 to $100.00 per acre. The tax rate in 1911 was $1.65 per $100.00. There are no sawmill in the county.

Lake County.

This county is mostly agricultural and has very little timber land. No examinations and no cruises are made of the timber and the trees are not assessed separately. Timber land is assessed at $3.00 to $4.00 per acre, cut-over land at $2.00 to $2.50 per acre and chaparral land at $1.25 per acre. The tax rate in 1911 was $2.15 per $100.00. It was estimated that the timber land was actually worth $7.00 to $9.00 per acre. The assessor contemplates raising all the assessed values in the county.

Lassen County.

This county has a large area of timber land. In 1905, this was cruised and classified by an expert cruiser. The timber land was divided into four classes, class A being assessed at $12.50 per acre, class B at $7.50 per acre, class C at

$5.00 per acre, and class D at $2.50 per acre. The cut-over land is assessed at $2.00 per acre and the chaparral at $2.00 to $3.00 per acre. The assessor estimates that the assessed values represent about 30 per cent of the actual value. The timber land is recorded on separate plats. It was estimated that about 25 per cent of the total county tax was derived from the timber land. The assessor is contemplating raising the assessed values of the timber land. There was a flat rate of $2.50 per acre on the timber land in Lassen County previous to the cruise.

Los Angeles County.

There is no timber land in this county. In 1911 the tax rate was $1.20 per $100.00. The assessor estimated that the assessed values represent 25 to 40 per cent of the actual values. The fruit trees are assessed separately. There are no sawmills in the county. Chaparral land is assessed at $8.00 to $100.00 per acre, and fruit land up to $600.00 per acre.

Madera County.

This county has a rather small area of timber land. No cruises are made and the trees are not separated from the land. In 1911 the tax rate was $2.30 per $100.00. The assessed value of timber land was $10.00 per acre (will be $15.00 in 1912), of cut-over land was $1.50 per acre (will be $2.50 in 1912), and of chaparral $1.50 per acre. The assessor estimated that the assessed value represented about 50 per cent of the actual value.

Marin County.

The timbered area in this county is small. There are no sawmills in the county. Cruises are not made and the trees are not separated. In 1911 the tax rate was $1.55 per $100.00. The assessed value of timber land was about $9.00 per acre and for cut-over land about the same. No plans of reform were being discussed.

Mariposa County.

There is considerable timber land in this county. No cruises are made, but examinations are made at irregular intervals. The trees are not assessed separately. The timber land is divided into two classes for assessment purposes, the first being assessed at $25.00 per acre and the second at $12.50 per acre. Cut-over land is assessed at $3.50 per acre and chaparral at $3.50 to $4.00 per acre. In 1911, the tax rate was $1.70 per $100.00. It was estimated that the actual value of the timber land was about $50.00 per acre. The assessed values were raised in 1911. The assessor estimated that 25 per cent of the total county tax was derived from timber land. There were no plans of reform in this county.

Mendocino County.

The timbered area in Mendocino County is very large. No cruises and no actual examinations are made and the trees are not assessed separately. The timber land is assessed at about $10.00 per acre, the chaparral land at $2.50 per acre and the cut-over land at $2.50 per acre. In 1911 the tax rate was $2.14 per $100.00. It was estimated that the actual value of the timber land ranged from $10.00 to $100.00 per acre. No change has been made in the assessed values for nearly ten years. The timber lands probably contribute about 50 per cent of the total county tax. The general sentiment is in favor of raising the assessed values.

Merced County.

There is no timber land in Merced County. Grazing land is assessed at $4.00 per acre, and farm land at $10.00 to $100.00 per acre, and chaparral land at $1.25 to $2.50 per acre. In 1911 the tax rate was $2.15 per $100.00. There are no sawmills in the county.

Modoc County.

There is a large area of timber land in this county. A cruise of the timber was made by the county surveyor in 1908 and 1909; it was divided, for assessment purposes, into three classes. Class A is assessed at $12.00 per acre, class B at $8.50 per acre, and class C at $5.00 per acre. Cut-over land is assessed at $2.00 to $2.50 per acre. The timber lands are recorded in a separate plat book, showing the class in which each subdivision belongs. Before this cruise was made, there was a flat rate of $2.50 per acre on all timber land. It was estimated that the actual value of the timber land is from $10.00 to $50.00 per acre. The assessor estimated that about 33 per cent of the total county tax is derived from the timber land. In 1911, the tax rate was $1.60 per $100.00. The people of the county are well satisfied with the present system of taxation.

Mono County.

The timbered area in this county is small. No cruises are made and the trees are not assessed separately. Examinations are made very irregularly. The timber land is assessed at $2.50 to $3.00 per acre and the cut-over land at $1.50 to $2.00 per acre. The tax rate was $2.00 per $100.00 in 1911. The largest proportion of the county tax is derived from the grazing and farm land. The supervisors do not favor an increase in assessed values.

Monterey County.

This county has a rather small area of timber land. No cruises are made and the trees are not assessed separately. No actual examinations are made and there is a great lack of system in assessing the timber land. The timber, cut-over and chaparral lands are all assessed as grazing land at $1.25 to $4.00 per acre. The assessor estimated that the assessed values represented 45 per cent of the actual value. Fruit land is assessed at $15.00 to $225.00 per acre. There are no sawmills in the county.

Napa County.

There is no timber land in this county. The principal tax revenue comes from the ranch land. The fruit trees are not assessed separately. Examinations of the lands are made annually. Ranch and fruit land is assessed at $25.00 to $300.00 per acre, and chaparral land, which is used for grazing, at $2.00 to $5.00 per acre. The assessor estimated that the assessed value represents 50 to 60 per cent of the actual value. The tax rate was $1.76 per $100.00 in 1911. There are no sawmills in the county.

Nevada County.

The timbered area is rather small. No cruises are made and examinations are only made at irregular intervals. The trees are not assessed separately. Timber land is assessed at $2.00 to $5.00 per acre, cut-over land at $1.00 per acre, and chaparral, which is used for grazing, up to $10.00 per acre. The assessor estimates that this represents about 60 per cent of the actual value. The tax rate in 1911 was $2.50 per $100.00. There were no plans for reform.

Orange County.

There is very little timber land in this county. The trees are assessed separately. The tax rate was $1.50 per $100.00 in 1911. The principal revenue comes from the orange and walnut groves. Timber land is assessed at $17.68 per acre, and the trees at $23.32 per acre. Fruit land is assessed at $25.00 to $225.00 per acre and the fruit trees at $50.00 to $225.00 per acre. Grazing land is assessed at about $5.00 per acre. The assessor estimates that the assessed value represents 30 per cent of the actual value. There are no sawmills in the county.

Placer County.

This county has a large area of timber land. No examinations are made, but the trees are assessed separately. The timber land is assessed at a flat rate of $1.00 per acre and the trees are assessed $3.00, $4.00 or $5.00 in addition. Cut-over land is assessed at $1.00 per acre and chaparral or grazing land at $4.00 to $10.00 per acre. It was estimated that the actual value of the timber land was $20.00 to $30.00 per acre. About 15 per cent of the total county tax is derived from the timber land. In 1911, the tax rate was $2.25 per $100.00. The assessor favors cruising, but the board of supervisors voted against this proposition.

Plumas County.

There is a large area of timber land in this county. No examination and no cruises are made, but the valuations are raised from year to year. The timber land is assessed at $8.00, $10.00 and $12.00 per acre, chaparral land at $2.00 to $2.50 per acre, and cut-over land at $2.00 per acre. The tax rate in 1911 varied from $1.65 to

$2.80 per $100.00, depending upon the school district. The actual value of the timber land ranges from about $20.00 to $50.00 per acre. The assessor estimated that 65 per cent of the total tax was derived from timber land, 2 per cent from chaparral land, and about 1 per cent from the cut-over land. The present system is unsatisfactory and cruising the timber is being advocated.

Riverside County.

The timbered area in this county is small. The principal tax revenue comes from the fruit land. A four year old grove is assessed at $60.00 per acre and this is increased $30.00 per acre annually until $225.00 per acre is reached. The land and water rights are assessed separately, and the maximum valuation for the three is $500.00 per acre. The tax rate was $2.10 per $100.00 in 1911, exclusive of bonded school tax. Timber and grazing land are not separated and no examination of them is made. The assessor estimated that the assessed values represent about 30 per cent of the actual value. The present methods of taxation are unsatisfactory.

Sacramento County.

There is no timber or cut-over land in this county. An actual examination of all the land is made annually. Regular rules for assessing are in vogue. The tax rate was $1.69 per $100.00 in 1911, on land outside of cities. The assessor estimates that the assessed values represent 60 per cent of the actual value. Grazing land is assessed at $5.00 per acre, fruit and ranch lands at $15.00 to $500.00 per acre, and dredging land at $150.00 to $750.00 per acre. No plans of reform are being discussed. There are no sawmills in the county.

San Benito County.

There is very little timber land, but a great area of chaparral land in this county. In 1911, the tax rate was $1.70 per $100.00. Chaparral land is assessed at $1.00 to $2.50 per acre, cut-over land at $1.50 per acre, fruit land at $120.00 per acre, and fruit trees at $50.00 per acre. No actual examinations are made. The assessor estimates that the assessed value represents 45 per cent of the actual value. There are no sawmills in this county.

San Bernardino County.

The timbered area in this county is small, and the fruit land is the principal source of revenue. No cruises are made, but the values are raised annually to allow for growth. Timber land is assessed at $2.25 to $7.50 per acre, cut-over land at $2.00 to $3.00 per acre, fruit land at $100.00 to $350.00 per acre and fruit trees at $20.00 to $200.00 per acre. The assessor estimates that the assessed values represent 30 per cent of the actual value. The general sentiment is that the tax rate is too high and plans for reform are being discussed. In 1911 the tax rate was $2.50 per $100.00.

San Diego County.

This county has a small area of timber land, but the principal revenue comes from the fruit land. The tax rate was $2.00 per $100.00 in 1911. The forest trees are not assessed separately. The timber land is assessed at about $1.50 per acre, chaparral land at $3.00 to $5.00 per acre and fruit trees at 30 cents per tree. The assessor estimates the assessed value to be 30 per cent of the actual value. There is one small sawmill in the county.

San Joaquin County.

There is no timber land in this county, and the greater part of the revenue is contributed by the farm land. Ranch land is assessed at $10.00 to $300.000 and up to $1,000.00 per acre, in a few cases. Grazing or chaparral land is assessed at about $3.00 per acre. The assessor estimates the assessed values to be about 50 per cent of the actual value. There are no sawmills in the county.

San Luis Obispo County.

There is very little timber in this county. Apple and walnut lands are assessed at about $200.00 per acre for walnut land and $6.00 to $8.00 per acre for apple land. The assessor estimates the assessed values to be 25 per cent of the actual value. The tax rate in 1911 was $2.11 per $100.00. Chaparral and oak land is classified as grazing land and assessed $1.25 per acre. There are no plans for reform and no sawmills in the county.

San Mateo County.

There is a small area of timber land in this county. No cruises and no examinations are made. Timber land is assessed at $8.00 to $12.00 per acre, cut-over land at $2.00 to $5.00 per acre, and chaparral land at $2.00 to $50.00 per acre. The tax rate in 1911 was $1.85 per $100.00. No plans of reform were being discussed. There are four sawmills in the county.

Santa Barbara County.

There is no timber in this county, but there is a big area of chaparral land, which is assessed at $1.25 and $1.30 per acre. The tax rate was $2.34 and $2.74 per $100.00 in 1911. The general sentiment is that the present system is satisfactory.

Santa Clara County.

There is no timber land, but a great deal of chaparral land in this county which is assessed at $1.50 to $5.00 and up to $10.00 per acre in some cases. The tax rate in 1911 was $1.35 per $100.00. There are no sawmills in this county and no plans for reform.

Santa Cruz County

Two thirds of the timber land in this county has been cut over and is now considered as chaparral land. In 1911 the tax rate was $2.10 per $100.00. Chaparral land is assessed at $2.00 to $5.00 per acre, cut-over land at $5.00 to $8.00 per acre, timber land at $10.00 to $50.00 per acre, fruit land $50.00 to $200.00 per acre, and 25 cents to $1.75 each for fruit trees. The assessor estimates that the assessed value represents about 45 per cent of the actual value. No examinations and no cruises are made. The general opinion is that the assessed values of the timber land are too high. There are four sawmills in the county.

Shasta County.

There is a large area of timber land in this county. Examinations are made at irregular intervals and some cruising is done. The trees are not assessed separately. The timber land is divided into four classes which are assessed as follows: Class 1 at $10.00 per acre; class 2 at $8.00 per acre; class 3 at $5.00 per acre and class 4 which is cut-over land, at 50 cents to $2.00 per acre. Chaparral land is assessed at $1.25 to $2.50 per acre. It was estimated that 25 per cent of the total county tax is derived from the timber land and 8 to 10 per cent from the chaparral and grazing land. The actual value of the timber land ranges from about $16.00 to $60.00 per acre. The tax rate was $2.24 per $100.00 in 1911. The assessor is in favor of cruising the timber.

Sierra County.

The area of timber land in this county is large. No cruises are made and actual examinations are only made in case of doubt. The trees are not assessed separately. Timber land is assessed at $2.50 to $6.00 per acre and cut-over land at $1.00 per acre. Proportional reductions are made when part of an area is cut over. The tax rate was $2.00 per $100.00 in 1911. It was estimated that the average actual value of the timber land is about $25.00 per acre and of the cut-over land about $2.50 per acre. No plans for reform were being discussed.

Siskiyou County.

There is a very large area of timber land in this county. The trees are not assessed separately and neither cruises nor actual examinations are made. Timber land is assessed according to accessibility at $6.00 and $7.00 per acre, and cut-over land at $1.00 per acre. In 1911 the tax rate was $2.00 per $100.00. It was estimated that 65 per cent of the total tax is derived from timber land, 15 per cent from chaparral, desert and grazing land, and 5 per cent from the cut-over land. Chaparral land is assessed at $2.50 per acre. The general sentiment favors cruising. There are fifty-two sawmills in this county.

Solano County.

There is no timber land in this county. The principal tax revenue comes from the fruit and ranch land. An actual examination is made each year. The tax rate in 1911 was $1.60 per $100.00. Land is assessed at $10.00 to $300.00 per acre, and fruit trees at $40.00 per acre. The assessor estimated that the assessed values represent 60 to 70 per cent of the actual values. There are no sawmills in the county and no plans for reform.

Sonoma County.

There is a large area of timber land in this county. No cruises are made and the trees are not assessed separately. An actual examination is made every four years. The oak land is assessed at $3.00 per acre, redwood at $8.00 to $50.00 per acre, cut-over land at $4.00 to $5.00 per acre and chaparral at $2.00 per acre. The assessor estimates that the assessed values represent 30 to 50 per cent of the actual value, and believes this to be high enough. In 1911 the tax rate was $1.60 per $100.00. The principal revenue in this county comes from farm land.

Stanislaus County.

There is no timber land in this county; also there are no sawmills. The principal tax revenue comes from ranch land. The tax rate was $1.85 per $100.00 in 1911.

Sutter County.

There is no timber land in this county; also no sawmills. Examinations of the land are made yearly. Pasture land is assessed at $2.50 to $10.00 per acre. The tax rate in 1911 was $1.50 per $100.00. The present system of taxation is satisfactory to the people.

Tehama County.

This county has a large area of timber land. No cruises nor examinations are made and the trees are not assessed separately. The timber land is divided into four classes, which are assessed as follows: Class 1 at $3.00 per acre, class 2 at $5.00 per acre, class 3 at $8.00 per acre and class 4 at $10.00 per acre. Cut-over land is assessed at 50 cents to $2.00 per acre, and chaparral at $1.50 to $2.50 per acre. The average actual value of the timber land is estimated to be about $19.00 per acre. The people seem fairly satisfied with the present methods, but the general sentiment favors cruising.

Trinity County.

This county has a large area of timber land. No cruises and no examinations are made. The trees are not assessed separately. Timber land is assessed at $5.00, $8.00 and $10.00 per acre, very poor timber land is assessed at $2.50 and $3.00 per acre, cut-over land at $1.00 per acre and chaparral at $1.00 to $1.50 per acre. The actual value of the timber land is estimated to be from $10.00 to $20.00 per acre. In 1911 the tax rate was $2.60 per $100.00. The assessor estimates that the timber land contributes 50 per cent and the chaparral land 10 per cent of the total tax. The general sentiment of the county is in favor of cruising.

Tulare County.

This county has a rather large area of timber land. The trees are not assessed separately. No examinations and no cruises are made. Timber land is assessed at $2.50 to $30.00 per acre, cut-over land at $1.50 per acre and grazing and chaparral land at $2.50 per acre. The assessor estimates the assessed values to be about 50 per cent of the actual value. The tax rate was $1.70 per $100.00 in 1911. There were no plans for reform.

Tuolumne County.

There is a rather large area of timber land in this county. No cruises or examinations are made. The trees are not assessed separately. Ordinary timber land is assessed at $10.00 per acre, "Big Tree" tracts at $80.00 per acre, cut-over land at $2.00 per acre and chaparral land at $1.25 to $3.25 per acre. The actual value of the ordinary timber land is estimated to be about $18.00 per acre. The tax rate in 1911 was $1.95 per $100.00. There were no plans for reform.

Ventura County.

There is very little timber land in this county. Most of the revenue comes from the fruit lands. Fruit land is assessed at $250.00 to $300.00 per acre, and fruit trees at $1.00, $2.00 and up to $4.00 each. The tax rate in 1911 was $1.70 per $100.00. The timber is only used locally and there is no systematic method for determining the valuation of timber land.

Yuba County.

This county has considerable timber land. No cruise and no examinations are made, but the assessed values are determined by the general knowledge of the assessor. Timber land is assessed at $5.00 per acre, cut-over land at $2.00 per acre, and chaparral and grazing land at $2.00 per acre. The tax rate in 1911 was $2.40 per $100.00. There were no plans for reform.

It is apparent that satisfactory and uniform assessed values of timber properties can not be secured by the methods now employed. It is unjust — viewed alike by owners and counties. While timber cruising is expensive, it is nevertheless the only way to determine the amount of timber on different holdings, which is the principal factor, other things being equal, in arriving at equitable values.

In some of the timbered counties the revenue derived from forest taxes forms a large percentage, and frequently the timbered area exceeds 25 per cent of the assessable land area. The estimated percentage of assessed value to true value is often very low; whether it is lower in proportion to ranch and range land remains to be determined.

A summary of the data obtained for the several counties is shown in the following table:

TIMBER AREA AND ASSESSED VALUATION.

County.	County assessors' methods for determining valuation of timbered and cut-over lands.	Assessed valuation per acre.				Estimated per-cent of true value.	Forest land privately owned.		Taxable land.			Estimated per cent of county tax derived from timber lands.	Tax rate per $100.00, 1911.
		Timber land.		Cut-over land.									
		Lowest.	Highest.	Lowest.	Highest.		Timbered acres.	Cut-over acres.	Total area acres.	Per cent timbered.	Per cent cut-over.		
Alameda													
Alpine	Examination	$3 00	$3 00				3,460	2,573	44,942	7.6	5.7		$2 00
Amador	Owner's statement	7 50	7 50	$2 50	$3 00	60	22,770	2,490	277,490	8.2	0.8		2 20
Butte	Classification	2 50	10 00	1 25	2 50	30—50	86,417	72,952	893,193	9.6	8.0		2 30
Calaveras	Examination	10 00	10 00	1 25	4 00	50	68,663	3,080	499,752	13.7	0.61		2 25
Colusa													
Contra Costa													
Del Norte	Classification	20 00	67 50	3 00	5 00	40—50	111,680	4,600	219,881	50.7	2.0	75—80	1 75
El Dorado	Previous assessment	10 00	10 00	2 00	2 00	50—60	114,976	26,074	655,674	17.5	3.9		2 00
Fresno	Classification	8 00	12 50	1 50	1 50	20	21,403	44,840	2,127,134	1.0	2.1		1 64
Glenn	Classification	2 00	10 00	2 00	2 00	60	27,337	718	632,148	4.3	0.11	5	$1 80 and 1 82
Humboldt	Classification	2 00	60 00	4 00	6 00	50	481,900	65,120	1,621,619	29.7	4.0	40	1 90
Imperial													
Inyo													
Kern	Annual examination	1 33	1 33	2 00	12 00	50	4,760	5,040	3,105,141	0.1	0.16		1 20
Kings													
Lake	Previous assessment	3 00	4 00	2 00	2 50	40—50	6,460	3,060	361,039	1.7	0.8		2 15
Lassen	Cruising	2 50	12 50	2 00	2 00	30	215,414		738,554	29.0		25	
Los Angeles													
Madera	Previous assessment	10 00	10 00	1 50	1 50	50	22,876	3,720	744,706	3.0	0.4		2 30
Marin	Examination	9 00	9 00	9 00	9 00		18,173	16,441	321,182	5.6	5.1		1 55
Mariposa	Classification	12 50	25 00	3 50	3 50	40—50	35,713	7,200	318,534	11.2	2.2	25	1 70
Mendocino	Owner's statement	10 00	10 00	2 50	2 50	10—100	532,528	137,348	1,602,866	33.2	8.5	50	2 14
Merced													
Modoc	Cruising	5 00	12 00	2 00	2 50	30—50	259,562	440	631,538	41.0	0.06	33	1 60
Mono	Irregular examination	2 50	3 00	1 50	2 00		15,320	8,520	164,210	9.3	5.1		2 00
Monterey	Previous assessment	1 25	4 00	1 25	4 00	45	87,073	6,680	1,446,496	6.0	0.4		1 55
Napa													
Nevada	Irregular examination	2 00	5 00	1 00	1 00	60	57,621	96,269	486,984	11.8	19.7		2 50
Orange													
Placer	Previous assessment	4 00	6 00	1 00	1 00		149,189	116,789	718,700	20.7	16.2	15	2 25
Plumas	Owner's statement	8 00	12 00	2 00	2 00	30—40	236,595	14,918	541,687	43.6	2.7	65	$2 65 and 1 65 2 80 and 2 60
Riverside	Previous assessment	2 18	2 18			30	5,820	6,047	1,219,236	0.4	0.4		2 00
Sacramento													

San Benito	Previous assessment			1 50	1 50	45	2,960	1,240	592,263	0.4	0.2		1 70
San Bernardino	Classification	2 25	7 50	2 00	3 00	30	10,940	15,000	1,381,437	0.79	1.09		2 50
San Diego	Previous assessment	1 50	1 50			30	23,140		1,179,782	1.9			2 00
San Francisco													
San Joaquin													
San Luis Obispo	Previous assessment	1 25	1 25			25	2,040		1,013,012	0.20			2 11
San Mateo	Previous assessment	8 00	12 00	2 00	5 00		23,880	1,940	307,452	7.7	0.6		1 85
Santa Barbara													
Santa Clara													
Santa Cruz	Previous assessment	10 00	50 00	5 00	8 00		18,169	43,866	258,599	7.0	16.9		2 10
Shasta	Classification	5 00	10 00	50	2 00		426,895	29,240	1,442,723	29.5	2.0	25	2 24
Sierra	Examination	2 50	6 00	1 00	1 00	20—30	137,406	40,092	323,048	42.2	12.4		2 00
Siskiyou	Owner's statement	6 00	7 00	1 00	1 00		694,363	139,196	1,836,237	37.8	7.5	65	2 00
Solano													
Sonoma	Classification	3 00	50 00	4 00	5 00	30—50	163,488	60,523	899,782	18.1	6.7		1 60
Stanislaus													
Sutter													
Tehama	Classification	3 00	10 00	50	2 00	50	99,337	63,216	1,291,757	7.6	4.8		
Trinity	Classification	5 00	10 00	1 00	1 00	50	256,808		570,985	44.9		50	2 60
Tulare	Owner's statement	2 50	30 00	1 50	1 50	50	39,748	1,280	1,793,939	2.2	0.07		1 70
Tuolumne	Classification	10 00	80 00	2 00	2 00	60	130,968	19,400	460,315	28.4	4.2		1 95
Ventura													
Yolo													
Yuba	Previous assessment	5 00	5 00	2 00	2 00	7	20,600	25,884	402,677	5.1	6.4		2 40

Letters from Lumbermen.

During the winter of 1911-1912 the following questions, among others, were sent to representative lumbermen throughout the State:

1. Do you consider the present tax on timber lands excessive?
2. Would you suggest reform; if so, of what description?
3. Would you consider it feasible, for purposes of taxation, to separate the land from the timber, taxing the first annually, and the latter when cut?

Thirty-three replies were received, giving some valuable testimony as to how the lumbermen of this State regard the present system of taxation of forest land.

The answers to the first question may be classified as follows:

Answers to question 1.	
1. No information	17
2. Present tax believed to be excessive	5
3. Present tax not considered excessive	11
Total	33

Some interesting reasons were given as to why the present tax was considered excessive:

Case 1. Considered it fair as compared with what other taxpayers have to pay, but believed there is a chance for more economy in public expenditures.

Case 2. Believed the tax to be excessive for the reason that the crop is harvested but once, and the increase in stumpage has not been sufficient to take care of the increased taxes and the interest on the investment.

Case 3. Considered that taxes are growing much faster than timber values.

Case 4. Considered it excessive on the grounds that the timbered portion is inaccessible in his locality, and the cut portion unsalable and the whole unproductive, and a bill of expense for twenty years.

Case 5. Believed the tax to be excessive for the reason that the land has only a nominal value and is assessed at a proportionately higher rate than other property in the same county.

No reasons were given as to why the present tax was not considered excessive, but one lumberman qualified his reply with the remark that while he did not consider the tax excessive, he did not feel justified in buying more timber lands because of it.

The replies to question 2 may be classified as follows:

Answers to question 2.	
No information	19
No reform suggested	5
Favor reform, but have no definite suggestions	1
Have definite plans for reform	8
Total	33

In the replies in which no reform was suggested, no reasons were given by most, while a few expressed themselves as satisfied with the present system. One lumberman was opposed to reform because he believed that conditions will adjust themselves to almost any system of taxation in time. He stated that he is opposed to continual changing.

The following are a few of the plans for reform that were advanced by the lumbermen in their replies:

Case 1. Several expressed themselves as being in favor of either carrying the cut-over land that will reforest itself at a nominal valuation, or else to eliminate it from taxation entirely.

Case 2. Standing timber should not be taxed at all, as it encourages enormous waste.

Case 3. To increase the tax on manufactured lumber and reduce it on standing timber.

Case 4. A uniform taxation for all counties in the State, based upon character and quality of timber and accessibility to transportation, and the assessment of absentee owners on the same basis as resident owners.

Case 5. One lumberman, who has made an exhaustive study of forest taxation, writes that in his opinion the best and most satisfactory system of taxing our forests will be to assess them when the timber is cut. He states that under the present tax laws it is quite impossible to carry on reforestation successfully on an economical basis.

Case 6. Sent by one of the lumbermen's associations. The State should establish a sort of revolving fund, entirely exempting timber lands, after proper classification, from taxation, but heavily taxing the product when it is cut and before it is removed from the land. These receipts from the lumbering operations are to be made into a fund in charge of the State, to be distributed annually among the timber counties according to their needs, crediting the counties with the money they have paid in and charging them with that paid to them, with the idea that in the long run matters will be evened up. It is their idea that such a method would encourage reforestation.

The answers to question 3 may be classified as follows:

Answers to question 3.	
No information	17
Considered feasible	6
Not considered feasible	10
Total	33

Two reasons were advanced as to why this plan was considered feasible. One was that this method would tend greatly to the conservation of timber, and the other was that by this method the taxes might be made equitable and just.

Of those who did not consider this plan feasible, Case 1 believed that a low value, placed on the land and timber together, would be preferable, for the reason that it would give a revenue to the county in which the timber land was located. Case 2 thought that standing timber should be taxed with its land and not separated. Case 3 did not believe it feasible for the reason that the land alone is worth practically nothing, while it is worth $100.00 to $150.00 per acre with its timber.

Conclusions.

It is obvious from these replies that the views expressed by the timbermen are far from being uniform. Many of them have given very little thought to the subject of forest taxation, and consequently were unable to give any expressions of opinion. The larger holders, however, have given a great deal of study to this taxation problem and many definite plans for reform were presented. The majority of these men were unanimous in declaring that the present system of taxation is unsatisfactory and that some reform is needed. While, in many cases, the present taxes were not considered excessive, the lack of uniformity and the uncertainty under the present system that the future taxes would not be made excessive were regarded as being prohibitive against the growing of future crops. No man will engage in such a long-time investment without some knowledge of what his expenses are to be, for nothing deters an investor so much as uncertainty of the costs. Moreover, he may pay taxes for forty or fifty years, only to see his entire holdings wiped out by fire with the result that his investment is a total loss.

Taxation in Other States.

Inquiries were made of secretaries of states, state foresters and forest schools throughout the country in order to find out what the other states are doing in regard to the taxation of timber lands. In all, 62 replies were received.

The results of these inquries may be classified as follows:

1. Number of states that have made no study of forest taxation	19
2. Number of states that have made a study of forest taxation	17
3. Number of states that contemplate making such a study	4
4. Number of states that have legislation concerning forest taxation	15

Forest Tax Laws.

The forest tax laws passed by other states may be put into three general classes: 1st, bounties; 2d, rebates; and 3d, exemption of a part or all of the area held by an owner for a period of years.

(1) *Bounties.*

Minnesota, Kansas, Massachusetts, Wyoming, Wisconsin, and Illinois are the States in which bounties are offered. These bounties are either in the form of competitive prizes for the best plantations or they are paid for each acre which is planted according to the provisions of the State.

So far as can be ascertained, Minnesota is the only State that has secured any results by this method. It has been estimated that 50,000 acres have been planted under this law, in Minnesota, at a cost of $440,000. It is obvious that this cost will be prohibitive when applied to the great areas of cut-over lands such as we have in California.

The Wyoming law is given in full below as a type of bounty law.

Wyoming Revised Statutes.

> Section 2645. It shall be lawful for the board of county commissioners in any county in this State to offer a bounty to any person in said county who shall hereafter plant one or more acres of land with forest trees and properly cultivate the same for five years for each acre so planted and cultivated; *provided*, that trees so planted shall not be at a greater distance than ten feet apart each way and shall be kept in a live, thrifty condition for at least five years after being planted before said bounty shall be due and payable; *and provided, further*, that the provisions of this act shall not apply to any lands held as timber culture entries under any of the timber laws of the United States.
>
> Section 2646. The board of county commissioners desiring to offer the bounty herein provided for, shall do so by resolution to be made of record and giving notice in some newspaper published in the county three weeks prior to the first day of April of each year, said resolution and notice to state the amount of bounty offered for each acre planted and cultivated.
>
> Section 2647. Any person claiming the bounty under this chapter shall make proof before the county commissioners that he has complied with the provisions of section 2645, and that the trees planted by him are in a healthy and growing condition.
>
> Section 2648. Upon satisfactory proof of the compliance with this chapter, the board of county commissioners may issue to the person entitled thereto a warrant upon the county treasurer as in other cases, for the amount due under the offer made by the board.

(2) *Rebates.*

Pennsylvania and New Hampshire have tried offering rebates of a portion of the taxes. Their method consists of assessing timber lands at their sale value, but offering under certain restrictions, a rebate upon taxes paid. In New Hampshire, the law has only been in force since 1903, and enough time has not elapsed for a thorough trial. However, very few have availed themselves of the privileges, thus far. This method has been in force in Pennsylvania for over twenty years, but with very little result, and in 1905 the laws were redrafted and reënacted. The Pennsylvania laws, as reënacted, are given below, although their value cannot be said to be fully determined.

ACT NO. 88.

To encourage the preservation of forests, by providing for a rebate of taxes levied upon forested land.

SECTION 1. *Be it enacted, etc.* That in consideration of the public benefit to be derived from the retention of forest or timber trees, the owner or owners of land in this commonwealth, having on it forest or timber trees averaging not fewer than fifty trees to the acre, each of the said trees to measure at least eight inches in diameter, at a height six feet above the surface of the ground, with no portion of the said land absolutely cleared of the said trees, shall, upon filing with the assessors of their respective townships or districts, annually, an affidavit made by some one in his, her or their behalf, upon blanks to be provided by the county commissioners of the respective counties, and by them to be furnished to the assessors for the purposes herein intended, setting forth the number of acres of timber land within the requirements of this act, be entitled to receive annually, during the period that the said trees are maintained in good condition upon the said land, a rebate equal to eighty per centum of all taxes, local and county, annually assessed and paid upon said lands or so much of the eighty per centum as shall not exceed in all the sum of forty-five cents per acre; the said rebate to be deducted from said taxes pro rata, and receipted for by the respective tax collectors or county treasurers; *provided, however*, that no one property owner shall be entitled to receive said rebate on more than fifty acres.

SEC. 2. It shall be the duty of the assessor, when such affidavit is filed with him, to record upon his assessment book the amount of timber land upon which the owner or owners may be entitled to receive the rebate, together with the value at which such timber land shall be assessed, for the purpose of furnishing the necessary information to those who shall prepare the respective tax duplicates, and upon which duplicate the amount of the said rebate shall be stated. No additional compensation shall be allowed any assessor for performing the duties required by this act. It shall likewise be the duty of each assessor, after receiving such affidavit, to file the same, with the county commissioners of the respective counties.

SEC. 3. The following acts of assembly, to wit: "An act for the preservation of forests, and partially relieving forest lands from taxation," approved May twenty-five, one thousand eight hundred and ninety-seven (Pamphlet Laws, 77), and all other acts or parts of acts inconsistent with the subject matter covered by this act, be and the same are hereby repealed.

Approved the eighth day of April, A. D. 1905.

ACT NO. 179.

To encourage the planting and the maintaining of sprout forest and timber trees, and providing that those who thus aid shall be exempt from taxation; defining the duties of the township assessor of taxes and penalties for violation of this act.

SECTION 1. *Be it enacted, etc.* That in consideration of the public benefit to be derived from the planting and cultivation of forest or timber trees, the owner or owners of any land in this commonwealth who shall plant the same with forest or timber trees, in number not less than three hundred to the acre, shall have a rebate in his, or her, or its taxes, to the amount of eighty per centum thereof, thereon, for a period of thirty-five years; *provided*, that such rebate shall not amount to more than forty-five cents per acre, said period of exemption to be counted from the time the said land or lands shall have been planted with forest or timber trees, as aforesaid, or from the time it may have been necessary to replant the same, as aforesaid, by reason of destruction from fire; and the rebate herein provided for shall be calculated and allowed by the tax collector.

SEC. 2. The owner or owners of any land or lands in this commonwealth who shall maintain upon said land or lands sprout forest or timber trees, in number not less than three hundred to an acre, shall be entitled to and receive the rebate of taxes as provided in section one; said period of exemption to be counted from the time the said land or lands shall have been so maintained with sprout forest or timber trees, or from the time that said sprout forest or timber trees may have been destroyed by fire.

SEC. 3. Upon any tract or tracts selected as a forest reservation, in accordance with sections one and two of this act, which contain fifty or less original forest trees on each acre, the owner or owners may plant a sufficient number of trees which shall make up not less than the required three hundred trees to the acre, and the same become subject to this act, in accordance with sections one and two.

SEC. 4. No land owner or owners shall receive the benefit of this act who shall permit cattle, horses, sheep, hogs, or goats to pasture upon such reservation or reservations, until at least two hundred trees upon each acre of said tract are four or more inches in diameter two feet from the surface of the ground.

SEC. 5. It shall be the duty of the township assessor of taxes to personally examine the various forest reservations, and, if found necessary, to demand of the owner or owners, or their agent thereof, to subscribe, under oath, that the land is maintained under the conditions of this act; and to return to the county commissioners the number of acres so maintained and the time from which the land has been so maintained; and also to make a duplicate return of the same data to the state forestry commission.

SEC. 6. Any assessor who shall knowingly and wilfully accept and make a fraudulent return or any owner or agent who shall knowingly and wilfully make any fraudulent return to the assessor, shall be liable to a fine of not more than five hundred dollars, or imprisonment of not more than one year, or either or both, at the discretion of the court; *provided, however*, that the provisions of this act shall not be construed so as to exempt from taxation more than five hundred acres, owned by any one person or body corporate, or limited copartnership or association.

All acts inconsistent with this act are hereby repealed.

Approved the twentieth day of April, A. D. 1905.

(3) *Exemption.*

Colorado, Connecticut, Indiana, Maine, Massachusetts, Nebraska, New Hampshire, Rhode Island, Vermont, and Wisconsin have laws which exempt a portion or all of young forest plantations for a period of years. Almost no results have been reported from these laws. This is probably due in part to certain very important defects in these laws.

The restriction of this exemption to plantations, and in several States, to land other than woodland, in a large measure destroys its usefulness at the very beginning. To give good results, these laws must be drawn so as to include young stands produced by natural reproduction. In several of the States, the number of trees required per acre is too large, while the number of species permitted is too small. Often, the proper care of the trees and the most profitable management of the stand is interfered with by the requirements of the law.

The period of the tax abatement is not long enough to make the financial consideration sufficient to act as much of an inducement to the owner. It generally comes at a time when the plantation has little value, and the remission of taxes is small when compared to the expenses involved in preparing the land and planting the trees. By the time the trees are large enough to have any real value the period of tax exemption has elapsed and the land and trees are again subject to the general property tax.

The framers of these laws have placed the whole burden of the tax redemption upon the particular locality in which the plantation is located. The advantages from these plantations are derived by the State in general, but under these laws, whatever is gained by the timber owner must be made up by heavier assessments upon the other local owners.

The Rhode Island law, as amended in 1908, is hereby given below as a type of exemption law.

Chapter 1581, Laws of 1908.

An act in amendment of section 3 of chapter 44 of the General Laws, entitled "Of Property Liable to and Exempt from Taxation."

It is enacted by the general assembly as follows:

SECTION 1. Section 3 of Chapter 44 of the General Laws is hereby amended so as to read as follows:

"Section 3. Whenever there shall have been planted one or more acres of land worth not more than twenty-five dollars per acre in the State, to trees of any of the following kinds: chestnut, hickory, oak, maple, larch, pine, ash, catalpa, locust, basswood, beech, hemlock, spruce, tulip tree, cedar, sycamore and walnut in numbers not less than five hundred to the acre, the owner of such plantation of trees may file with the tax assessors in any town in which such plantation may be located an affidavit showing that he has complied with the requirements of this act.

"Upon such proof, such plantation, including the trees and land on which they are growing in good condition, shall be exempted from all taxation whatsoever for a period of fifteen years, said period of exemption to be counted from the time the said land shall have been planted as aforesaid, or from the time it may have been necessary to replant the same, by reason of destruction by fire, if the same shall be replanted within one year after such destruction; *provided*, said land is planted or replanted, as the case may be, and managed under a forest working plan approved by the state commissioner of forestry during said period of exemption from taxation; *provided, further*, that the provisions of this act shall not be construed so as to exempt from taxation more than three hundred acres owned by any one person, corporation, limited copartnership, or association."

SEC. 2. This act shall take effect upon its passage, and all acts and parts of acts inconsistent herewith are hereby repealed.

Legislation.

It seems apparent from the foregoing that laws providing for rebates, bounties, prizes or exemptions have accomplished but little toward the practice of forestry. They all fail in that they do not provide for a different method of taxing forest properties. Legislation in our own State should be carefully thought out and planned with a view of making it possible to grow crop after crop of timber. Much study of this problem is necessary before proper legislation can be suggested. Those who have devoted much attention to forest taxation are of the opinion that the forests should be taxed when they are cut: when they yield a revenue with which to pay. No such laws have been passed by any State, consequently no assistance, based upon the operation of such a law, can be secured.

A systematic study of the taxation problem should be continued. If, during the investigation, it is found that timber is being cut because the present owners have not sufficient capital to pay the taxes, then an emergency measure might very properly be passed to cover such cases. Deferred tax certificates, bearing 6 per cent interest, could be issued to the owner by the county assessor upon application. Any legal subdivision could be released for cutting, by giving thirty days' notice, after the interest and accrued taxes have been paid. This plan has been suggested by Mr. George M. Cornwall, editor of *The Timberman*. Mr. Cornwall has done much toward furthering the cause of forestry and his plan seems adapted to practical application.

CHAPTER V.

STATE FORESTRY DEPARTMENTS.

ORGANIZATION AND APPROPRIATIONS.

That the legislators, and the public generally, may be fully informed of what other States are doing to conserve and preserve their timber resources, an investigation has been made of the organization and appropriations of such States as are practicing forestry. In some States a good beginning has been made, and an adequate working capital has been provided.

An effort has been made to keep the forestry departments as free from political influences as possible. Every phase of this great movement is new; the work is both investigative and creative and its ultimate success depends largely upon the officers' familiarity with forest conditions in his State. The problems are as intricate as they are numerous. Much time is required to gain a thorough working knowledge of field conditions and of the problems affecting different interests and localities. Frequent changes in administration are detrimental to the solution of problems that oftentimes require years of patient study and observation.

Twenty-two States and one territory have recognized the importance of forestry. The tendency is to improve the stronger ones and to strengthen the weaker ones by better legislation and increased appropriations.

Massachusetts spends $295,000 annually for the protection, extension, and solution of her forest problems, but her timbered area is only 2,000,000 acres.

New York spends $266,800 and her forested area is 12,000,000 acres.

Pennsylvania has a forested area of 9,200,000 acres and spends $280,250 annually.

Wisconsin with her 16,000,000 acres of forested lands spends $137,100 annually.

And what does California appropriate for her 24,000,000 acres of forested land? Just $15,150 annually.

The following summary shows what each State has done to conserve her timber resources:

Alabama.

In 1907, a State Commission of Forestry was created, consisting of the Governor; a member of the State Tax Commission; the State Game and Fish Commissioner; the Commissioner of Agriculture and Industries; one practical lumberman engaged in the manufacture of lumber in the State, who is appointed by the Governor to serve for a term of five years; a member of the United States Forest Service, recommended by the Forester of the said Forest Service; and the Professor of Forestry in the Alabama Polytechnic Institute.

The members of this commission receive no compensation. Five hundred dollars ($500.00) is appropriated annually for the purpose of carrying out the provisions of the forestry acts and for the payment of the incidental expenses of the Commission of Forestry. All sheriffs, deputy sheriffs, constables, marshals, justices of the peace and other peace officers of the State are declared ex officio deputy forest wardens and are required to enforce all forest laws of the State. Deputy forest wardens who serve without compensation are also appointed by the Governor, on the recommendation of the Commissioner of Forestry.

California.

The California State Board of Forestry is composed of the Governor, Secretary of State, Attorney General and the State Forester. The State Forester is appointed by the Governor. His term of office is during the pleasure of the Governor. The Deputy State Forester and the Assistant State Forester are appointed by the State Forester and hold office during his pleasure. The biennial appropriation for forestry is $30,300. This is divided as follows: Salaries, $12,800; support, $15,000; and printing, $2,500. The salaries of the State Forester, his deputy and assistant are paid from the salary fund and are fixed by statute as follows:

State Forester, $3,000 a year; Deputy State Forester, $1,800 a year; and Assistant State Forester, $1,600 a year. The firewardens are voluntary and are appointed by the State Forester.

Connecticut.

Appropriations in this State are made for biennial periods by the general Assembly, which convenes in odd years. The forestry work centers in the Agricultural Experiment Station. The forester of the station is, by law, State Forester and ex officio State Forest Firewarden. His salary and that of the Assistant State Forester is paid by the Agricultural Experiment Station, and both of these officials are appointed by the Board of Control of the Experimental Station. The salary of the State Forester is $2,500 a year, and of the Assistant State Forester $1,500. Town and district firewardens receive 35 cents per hour, and assistants or laborers at forest fires receive 20 cents per hour. Pay of patrolmen cannot exceed $2.50 per day. The biennial appropriation for maintenance and general expenses is $3,000; for the purchase of state forests, $5,000; and for the forest firewarden $3,000. This latter appropriation covers the traveling and other expenses of the State Forester in connection with firewarden duties and one quarter of the expenses of the towns in extinguishing fires. Besides this, the office is provided annually with a budget of approximately $7,000 by the experimental station. From this budget, the salaries of the State Forester and Assistant State Forester as well as the expenses of the experimental station work in forestry are paid. This work has chiefly been connected with the nursery and planting experiments and educational work.

Hawaii.

The Division of Forestry is a branch of the Territorial Board of Agriculture and Forestry. The members of the Board of Commissioners of Agriculture and Forestry are unpaid, but provision is made for the payment of their traveling expenses. The Superintendent of Forestry, who is also ex officio Chief Firewarden, has a statutory salary of $3,000 per annum. His assistant, who holds the title "Forest Nurseryman," receives $1,800 per annum. Since 1909, all the expenses of the board of Agriculture and Forestry have come from the conservation fund, raised by special immigration conservation income tax. This has been turned over in a lump sum at the rate of about $3,500 a month. Of this sum, the total allotment to the Division of Forestry has been about $14,000 per year.

Indiana.

The Indiana State Board of Forestry consists of a secretary and four other members. The salaries are fixed by statute as follows: Secretary of board, $1,800; stenographer to secretary, $600; four board members, $400; mileage of four board members, $58.28; general office expense and mileage, $1,000, making a total of $3,858.28. Besides this an appropriation of $3,000 a year is made for the Forest Reservation and Experimental Station. The legislature convenes biennially but this appropriation is annual.

Kentucky.

The State Board of Forestry in Kentucky consists of six members; namely, the Governor, the Director of the Experimental Station, the Commissioner of Agriculture, who are ex officio members, and three others, who are appointed by the Governor. The members of the board receive no compensation, except actual expenses incurred in the performance of their duties. The State Forester is appointed by the board for a term of four years. His salary is fixed by the State Board of Forestry at a sum not to exceed $2,500 per annum, and his traveling and field expenses. An annual appropriation of $15,000 is made to cover all forestry expenses, including salaries. The forest wardens are paid a sum not exceeding $2.00 per day for each day of services. They are commissioned by the Governor on the application of the State Board of Forestry, and are paid out of the general appropriation.

Louisiana.

The registrar of the land office is ex officio forester. He receives a salary of $500 and has an expense fund of $300 per annum. The deputy forester is appointed by the Governor, on recommendation of the Conservation Commission, for a period of one year at a time. He receives a salary of $1,800 per annum and has an allowance of $600 per year for office and traveling expenses, which is paid out of the conservation fund. This fund is derived from an annual license tax upon all persons, business firms and corporations pursuing the business of severing timber and minerals from the soil. This fund amounts to from $50,000 to $75,000 per annum, and the greater portion is expended for care and protection of the forests.

Maine.

In this State the land agent is also forest commissioner and the chief clerk to the land agent is deputy forest commissioner. The salary of the land agent and forest commissioner combined is $2,500 annually and the salary of the chief clerk and deputy forest commissioner is $1,500 annually. The appropriation in 1912 for forest fire protection was $67,922.47. This sum was arrived at by a tax of a mill and one-half basis upon the valuation of the wild lands for taxation purposes. There is also an appropriation of $2,500 for public instruction in forestry, which is used to maintain a chair of forestry at the University of Maine. The Maine legislature meets biennially on the odd years, but separate appropriations are made to cover the two years. The chief forest firewardens and the deputy forest firewardens are appointed in the various forestry districts by the Forest Commissioner. The chief forest firewardens receive as compensation $3.00 for each day of actual service, with an allowance for expenses of travel and subsistance not to exceed $2.00 daily for such period. The deputy forest firewardens receive $2.00 and subsistence for each day of actual service.

Maryland.

The Maryland State board of Forestry is composed of seven men, of whom the Governor is president. The State Forester is the only statutory appointee of the board, at a salary of $2,000 per annum. All expenses of the board and the salaries of clerks and field assistants come out of the general appropriation. The legislature convenes biennially on the even years, but the appropriation is annual. The last legislature made an annual appropriation of $10,000 for the support of the work of the board, and $6,000 for publishing county maps, and also an appropriation of $50,000 for the purchase of forest reserve lands. The forest wardens are commissioned by the Governor and are not authorized to incur any expense until after a fire has been reported to them.

Massachusetts.

The State Forester is appointed by the Governor and council, and he, in turn, appoints his assistants. The legislature meets annually and the appropriations are made annually. The salaries are not designated by law. The Governor and council establish the State Forester's salary, which is $5,000. The salaries of the other officials are regulated by the State Forester subject to the approval of the Governor and council. The appropriations are as follows: $20,000 for general forestry; $10,000 for forest fire work; $10,000 for reforestation; $5,000 for reimbursement to towns for forest fire equipment. Besides this, there is an appropriation of $250,000 for the gypsy and brown-tail moth work, which is in charge of the State Forester. The firewardens are paid out of the appropriation for forest fire work.

Michigan.

The legislature convenes biennially, but the appropriation is annual. The salary of the State Forester is $1,600 per year. The appropriation is apportioned by the Public Domain Commission, to cover salaries and expenses of officials, expenses of members of the Commission and expenditures incurred in the management of the State Forests. The secretary of the Public Domain Commission, who is also Commissioner of Immigration, receives a salary of $2,500 per year. The other members of the Commission are reimbursed for expenses only.

Minnesota.

The State Forester is selected by the State Forestry Board, which, in turn, is selected by various boards, such as the State Forestry Association; the Agricultural Society; the Regents of the University, etc. The members of the board serve without pay. The only statutory position is that of the secretary of the State Forestry Board, at $1,800 a year. The salary of the State Forester is fixed by the board at a sum not to exceed $4,000 a year. The State Forester selects all the other officers of the service, including his assistant, who receives $2,000 a year. The rangers receive from $1,080 to $1,260 a year and their expenses; the patrolmen, $70 a month and pay their own expenses. The legislature convenes in the odd years and appropriations are made biennially, which amount to $100,000. Seventy-five thousand dollars ($75,000) of this fund is for the regular work of the service; $6,000 for the support of the State reserves, and $20,000 for the encouragement of tree planting on the prairie portions of the State.

Montana.

The Montana Board of Forestry is composed of the Registrar of State Lands, the State Land Agent, and the State Forester. No appropriations are made for forestry purposes, and the expenditures are made through the State Board of Land Commissioners. The State Forester is appointed by the Governor for a term of four years at a salary of $2,500 per annum and expenses when engaged in outside work. The Assistant State Forester is appointed by the State Board of Land Commissioners for such time as is necessary. He draws pay only when actually engaged in the performance of such work and his pay cannot exceed $150 per month. The firewardens are voluntary.

New York.

The Conservation Commission is divided into three offices: Water Supply, Fish and Game, and Lands and Forests. It is composed of three commissioners at $10,000 a year, and three deputy commissioners at $3,500. The division of lands and Forests has at its head a Superintendent of State Forests at $3,200; an assistant at $2,000; a chief surveyor at $2,500; five foresters at from $1,000 to $1,800; four locomotive inspectors at $1,200; a pathologist at $1,500, and over a hundred fire patrolmen at from $60 to $75 per month, about 30 of whom are employed the year around, and the rest about six months. There is also an auditor of fire accounts at $1,800; a special agent at $1,800 and five superintendents of fire at $1,200 per annum.

The appropriations are made annually as follows: $75,000 reappropriated and $25,000 newly appropriated for the acquirement of land in the State reserves; $25,000 for the enforcement of the conservation laws; $5,000 for the protection of the State's title to lands, by surveys, etc.; $50,000 for fire protection; $25,000 for general expenses of the Lands and Forest Department. Aside from the above, the salary list of those below State Foresters (patrolmen, stenographers, etc.) amounts to $27,000. All the offices of the Lands and Forest Department, except those of patrolmen and superintendent of fires, are under civil service. All the offices of the general commission, except those of stenographers are appointee.

North Carolina.

The forestry work is considered as a part of the work of the North Carolina Geological and Economic Survey. The total annual appropriation for this department is $15,000 and of this amount, about $3,000 is devoted to forestry work. The salary of the State Forester is $1,800 per annum. This is determined by the State Geological Board, which is appointed by the Governor.

Ohio.

The department of forestry in Ohio is at the State Agricultural Experiment Station and is under the supervision and management of the Board of Control, which is virtually a Forestry Commission. The members of the board receive no compensation. The appropriations, which are biennial, amounted to $19,500 in 1911. The organization of the department consists of the chief, paying $2,000; that of first assistant, paying $1,200. These offices are appointed by the Board of Control of the station. The expenses of the Board of Control are provided for out of the general fund of the station.

Oregon.

The State Board of Forestry consists of the Governor, the acting head of the Forest School of the Oregon Agricultural College, and five electors of the State appointed by the Governor upon the recommendation of five associations in the State. The members of the board receive no compensation for their services, but are entitled to actual expenses incurred in attending board meetings. The legislature meets in the odd years and an appropriation of $60,000 is made for the biennial period. The State Forester is appointed by the State Board, to hold office during the pleasure of the State Board, which also fixes his salary at $3.000 per year. He is authorized to appoint a deputy, whose salary is fixed by the board at $1,800 per year. These salaries are the maximum under the law. In 1911, 23 supervising firewardens were employed from June 1st to October 1st, at a salary of $100 per month and expenses. Voluntary firewardens are also appointed throughout the State by the State Forester.

Pennsylvania.

The legislature convenes in the odd numbered years and the appropriations are biennial. The statutory appointments are as follows:

Commissioner of Forestry	$3,000 00
Deputy Commissioner	2,500 00
Two Clerks, each	1,500 00

The appropriations made in 1911 for use for two years were:

Foresters	$110,000 00
Rangers	125,000 00
Labor	100,000 00
Surveys	10,000 00
Draughtsmen and Supplies	12,000 00
Examination of Titles	5,000 00
Expenses members of commission	3,500 00
Incidentals	55,000 00
Contingent	6,000 00
Academy	20,000 00
Purchase of lands	50.000 00
Forest fires	50,000 00
Tax on lands of schools and roads	80,000 00
Total	$546,500 00

This appropriation for foresters is to pay the salaries and expenses of the foresters who are in the employ of the State and in charge of the Forest Reserves and other forestry work. Their salaries range from $60 to $150 per month.

The appropriation for rangers covers the salaries of those men who are entirely on the forest reserves, with salaries ranging from $25 to $60 per month. The foresters and rangers are appointed by the reservation and forty-one of the foresters are graduates from their Forest Academy.

The labor appropriation is to cover expenses of all kinds for labor connected with the reserves by individuals other than foresters and rangers.

Surveys, draughtsmen and supplies covers the expenses for surveying the exterior borders of the State forestry land, making the necessary maps, etc.

The incidental appropriation covers any work of the department not otherwise provided for in the specific appropriations, such as dissemination of information to the public, pamphlets, bulletins, etc.

Contingent expenses cover the expenses of the office. The forest fire appropriation is for the extinguishing of forest fires anywhere in the State.

The taxation on lands covers the payment by the department of two cents per acre for roads and two cents per acre for schools, on each acre owned by the State in the various townships.

In addition to the Commissioner of Forestry, there are four members of the State Forestry Reservation Commisison who are appointed by the Governor. These individuals receive no salary, simply being paid their expenses in connection with the work of the Commission. There is also a chief surveyor at a salary of $1.800 per year, and a forest inspector at a salary of $2,100. There is also one stenographer in the department receiving $720; one bookkeeper at $900 and one at $1.200. These are all appointed by the department, and not by legislative enactment.

Rhode Island.

The Legislature convenes annually and the appropriations are annual. There is a Commissioner of Forestry at a salary of $1,000 per annum. Five hundred dollars per annum is appropriated for the expenses of the office and $1,500 per annum is appropriated for fighting forest fires.

Vermont.

The appropriation for forestry purposes is part of a blanket appropriation for agriculture and forestry, $20,000 a year being apportioned for the two lines of work. This money is divided by the State Board of Agriculture and Forestry between the two departments according to their needs; this year forestry received $11,000 of this amount. The expenditure in connection with the prevention of fires does not come out of this appropriation. Those expenses are paid by the towns and the towns are reimbursed by the State for any sums paid out over 5 per cent of their grand list. This reimbursement comes out of the general treasury of the State.

The legislature convenes in the even years. The only statutory appointment is that of State Forester, whose salary is fixed by statute at not to exceed $2,500. The exact amount is decided by the State Board of Agriculture and Forestry.

Washington.

The State Board of Forest Commissioners consists of the State Land Commissioner and four electors of the State, appointed by the Governor. They receive no compensation for their service, but are allowed necessary expenses incurred in the performance of their duties. The legislature convenes on odd years and the appropriations are biennial. The appropriations for the years 1911-12 were as follows:

State Forester and firewarden	$ 4,000.00
State firewarden and forest fire service	71,000.00
Firewarden—printing fund	1,000.00
Total	$76,000.00

The State Forester is appointed by the Board of Commissioners. He is also state firewarden. The assitsant state firewarden receives a salary of $1,200 a year. A forest fire service is maintained during four months of the year—June, July, August and September—in twenty-three of the timbered counties of the State. At the beginning of the fire season, a firewarden is appointed in each county and later in the season, when conditions demand greater supervision, others are appointed. The appropriation under state firewarden and forest fire service covers clerk hire, office and miscellaneous expenses. The largest part of this is expended in paying and rimbursing firewardens and men employed in fighting forest fires.

Each warden receives compensation not to exceed $4.00 per day, and also necessary and proper expenses for the time actually employed. The salaries and necessary expenses of all wardens, together with all expenses incurred in forest fire protection, are borne in the proportion of two thirds by the State and one third by the county in which the service was given and the expense incurred for forest fire protection.

West Virginia.

There is no direct appropriation for forestry in this State. The work is included under the department of forest, game and fish, and the forest, game and fish warden has charge of the work. The only effort being made is in the control of forest fires. All deputy wardens are also ex officio fire wardens and receive two dollars a day for all time actually employed in putting out fires. All expenses incurred in extinguishing fires are required to be paid by the county in which the fire is located. The forest, game and fish warden receives a salary of $1,800 per annum. He has two chief deputies who each receive a salary of $900 per annum and their traveling expenses.

Wisconsin.

The members of the State Board of Forestry receive no compensation. They are allowed their expenses incurred in the performance of their duties. The legislature convenes biennially on the odd years, but most of the appropriations are annual. The appropriations are as follows: Administrative, $35,000 a year; for purchase of forest reserve lands, $10,000 a year; for purchase of forest reserve lands, $50,000 for five years; forest reserve fund, about $75,000 a year.

This forest reserve fund consists of the proceeds of all sales of scattering and agricultural lands, timber, etc. This fund varies, but the income has been averaging about $75,000 per anum.

Three salaries are fixed by statute provision, namely: State Forester, $3,600 per annum; assistant state forester, $2,000 per annum; chief clerk, $1,500 per annum. All other salaries of cruisers, rangers, forest assistants, etc., are paid out of the general fund, the salaries being fixed either by the State Board of Forestry or the State Forester.

The following comparative table gives a summary of the appropriations of the various states in which forestry work is being conducted. Special attention is called to the acreage of timbered land and their corresponding appropriations:

COMPARATIVE TABLE OF APPROPRIATIONS FOR FORESTRY WORK.

State.	ANNUAL FOREST APPROPRIATION.					Total area, acres.*	FOREST AREA.	
	Salary.	Maintenance and general.	Protection.	Purchase of State forests.	Total.		Acres.	Per cent of land area.
Alabama		$500			$500	32,818,560	20,000,000	61
California	$6,400	8,750			15,150	99,898,880	24,000,000	24
Connecticut		8,500	$1,500	$2,500	12,500	3,084,800	1,600,000	52
Hawaii		14,000			14,000			
Indiana	2,800	4,058			6,858	22,966,400	4,000,000	17
Kentucky		15,000			15,000	27,715,840	10,000,000	39
Louisiana	2,300	900	62,500		65,700	29,061,760	16,500,000	57
Maine	4,000	2,500	67,922		74,422	19,132,800	14,900,000	78
Maryland	2,000	16,000		50,000	68,000	6,362,240	2,200,000	35
Massachusetts		280,000	15,000		295,000	5,144,960	2,000,000	39
Michigan		15,000			15,000	36,787,200	15,500,000	42
Minnesota	1,800	50,500			52,300	51,749,120	15,500,000	30
Montana	2,500				2,500	93,293,640	18,000,000	19
New York	61,800	55,000	50,000	100,000	266,800	30,498,560	12,000,000	39
North Carolina		3,000			3,000	31,193,600	19,600,000	63
Ohio		9,750			9,750	26,073,600	4,800,000	18
Oregon		30,000			30,000	61,188,480	27,000,000	44
Pennsylvania	7,000	223,250	25,000	25,000	280,250	28,692,480	9,200,000	32
Rhode Island	1,000	500	1,500		3,000	682,880	250,000	37
Vermont	2,500	11,000			13,500	5,839,360	2,500,000	43
Washington	2,000	500	35,500		38,000	42,775,040	25,000,000	58
Wisconsin	7,100	110,000		20,000	137,100	35,363,840	16,000,000	45

*Area, and Forest Area: "Report of the National Conservation Commission," Vol. 2, page 346.

State Forest Reserves.

It is probable that much of the logged-off land will not be reforested unless the work is undertaken by the State. Some States have already adopted the policy of acquiring such land for State forest reserves. In some instances large appropriations have been made for this purpose. In our own State a start could be made, without cost, by retaining delinquent tax land at the expiration of the redemption period. Such areas, which are proved upon examination to be of value for forest purposes, should be permanently withdrawn from sale, and the remainder released. This question has not yet been given much attention. It deserves consideration, however.

The following table shows the progress made by other States in establishing State forest reserves:

State.	Area in acres.
Indiana	2,000
New York	1,641,523
Pennsylvania	920,763
Michigan	231,349.58
Massachusetts	2,000
Connecticut	1,509
Maryland	1,960
New Jersey	13,720
Wisconsin	385,000
Vermont	1,760
Minnesota	51,000
Kansas	600
Total	3,253,184.58

CHAPTER VI.

FORESTRY.

MANAGEMENT, PROTECTION AND WOOD PRESERVATION.

Because of numerous inquiries received and the popular interest displayed of late by teachers and others desiring a brief and concise discussion of forestry, this chapter is written. Forest literature is most incomplete: is scattered in various Government and State publications, and is often not available. The following topics are chosen because they are the ones in which there seems to be the most interest.

Definition of Forestry.

By forestry is meant the management and culture of a forest in such a way as to yield repeated or future crops of timber. Lumbering operations have been paying little or no attention to a future crop and have devastated the forests to such an extent that natural reproduction is not always possible. When a forest is cut, the forester aims to replace it by a new growth, protect the seedlings and young trees, which by the old lumbering methods were oftentimes destroyed, and so obtain from the forest, the highest possible yield, profitably as well as conservatively.

A forester, then, must have a thorough knowledge of the life and characteristics of trees, must know the art of forest reproduction and be familiar with and experienced in modern logging, to carry out forest policies in a practical manner.

The Importance of Forests.

The importance of forests lies chiefly in the numerous uses to which they are put. As a whole, they are of importance in providing shelter and food for certain of our domestic animals, protecting agricultural land in their vicinity, harboring game, preventing erosion in one locality and fixing drifting sand in another, in beautifying the landscape in general, and furnishing healthy employment to many.

Influence of the Forest on Climate and Soil.

The beneficial effects of forests on the land in their vicinity was formerly, and to some extent still is, somewhat exaggerated, or at least sought for in the wrong direction. To the forest was attributed the capability of altering the temperature, regulating precipitation, and controlling the humidity of the atmosphere. In fact, the impression conveyed by these statements was, that whatever imperfection the climate of the district possessed might be remedied by the establishment of forests. However, the forest is not without its favorable effects by any means. Apart from the fact that they add organic matter to the soil, forests have a beneficial action in

(1) Preventing direct sunlight from reaching the soil,
(2) Breaking the force of the wind,
(3) Reducing the force of heavy rains, and
(4) Binding soils apt to be carried away by flooding and drifting.

In hilly country the prevention of erosion is, without doubt, of great importance. The water from heavy rains, checked in its descent by meeting first with the foliage of the trees, is better retained in forest soil than on bare land. Under a close cover of trees there collects a humus soil formed from the decay of fallen leaves. Through this soil-covering the rain slowly filters, and its passage is further retarded by the stems and roots of the trees. In this way the erosive effects of heavy rains on bare hillsides are interrupted.

In the case of shifting sands, the roots of trees, shrubs, and wild plants, and the covering of humus formed from dead leaves, serve to bind the soil. Forest growth is essential in such cases, for, when level tracts of loose soil, without forest or other cover, are exposed to the wind, sand dunes are apt to be formed. These advance in the direction of the prevailing wind, oftentimes destroying valuable agricultural lands.

Sylviculture.

The reproducing of the forest, known technically as sylviculture, is next of importance in our discussion.

The aim in establishing a forest, is to constantly produce under given conditions, the most valuable timber crop with the least expenditure of time and money consistent with good results. In other words, sylviculture involves the art of establishing, developing and maintaining a forest.

1. *Establishing forests*—The seed stage of plant or tree life. This may be carried on by

a. Natural reproduction; or

b. Artificial reproduction which denotes seeding or planting.

2. *Developing forests*—Involves the care, culture and protection of these seed or plant areas in such a manner as to secure a good crop with the largest possible returns in the shortest period of time. The objects, therefore, of sylviculture may be

(1) To secure quick reproduction after the timber has been removed.

(2) To produce species which will give best returns. That is, produce valuable marketable species.

(3) To manage the area so as to produce a full crop of good quality and form.

(4) To obtain an annual yield and to accomplish all this on a practical rather than a theoretical basis.

(1) *Quick Reproduction*. This, in many cases, is hard to obtain because of the abuse to which forests have been subjected. Especially is this true where clear cuttings have been made, thus making the area easily susceptible to fire and entirely killing whatever natural reproduction may be present. Take, for example, the formerly timbered areas of Michigan and Pennsylvania. Their forests were cleared by lumbering and fires. This, in many cases, is true even in California and in many cases these cleared tracts are covered entirely with chaparral and worthless brush. The areas are as capable as formerly to produce good timber, but the seed trees necessary for reproduction have been destroyed, and consequently many years will be required for natural reproduction to take place. Even where fire has not played so important a part, but where the usual lumbering methods have been carried on, reproduction is none too fast. Loss of growth is the result, the soil lies idle and the time existing between cutting the timber to the maturity of a new crop is much longer than necessary.

(2) *Species*. A term much used in technical forestry is "locality." It comprehends both soil and climate—the latter being influenced by situation, as they effect tree growth. The locality largely determines the species to grow and the sylvicultural treatment to adopt for a given area.

Here is where the managerial ability of the forester comes in. Apart from the general management of the forest, the prosperity of the trees depends upon the physical and chemical composition of the soil, the geographical position, the altitude, slope and aspect of the ground. In selecting trees or determining a species to be grown, general conditions that are found to prevail must be considered.

Market, undoubtedly, in many cases determines the species to be grown, providing of course that the soil is capable of producing market-demanding species.

The quantity of moisture in the soil has a very great influence in determining the species which will grow, for on dry soils occurs one type of tree, and on wet soils, another.

The purpose of sylviculture is to improve the composition of the forest, so that a given area will be occupied by the species best adapted to the existing conditions.

(3) *Full crop of good quality and form*. Sylviculture not only aims to reproduce forests but to produce as many trees and of as good quality per acre as is possible. Under good methods of forestry our American forests should produce more timber. At present they are not doing this, the reason being that the stands are very irregular. Many trees are crowded, or growing in the open, the latter with their wide-spreading branches occupying a great deal of space to the exclusion of other trees. Then again, there are many open spaces occupied by brush, shrubs, or are entirely bare, that might be growing trees.

Forests usually contain large numbers of trees that are crooked or forked, or have low branches which hinder their otherwise high commercial value. Usually, such trees are good only for firewood though they are large enough and of the right species to furnish good timber. Thus, frequently, one sees a stand, one hundred years old, with trees of such poor form that the timber is worth only a small percentage of what it would have been had it been managed properly.

(4) *Annual Yield*. In the establishment of forests the aim must always be to constantly produce for the given conditions, the most valuable timber crop with the least expenditure of time and money consistent with good results.

To perpetuate such an aim, a forest must yield annually, or over some other convenient period, certain amounts of timber. Thus defined, the sustained or annual yield of the forest is that number of cubic feet which a forest produces annually; the annual removal of this amount of timber then, will not decrease the original amount of stumpage.

An annual yield offers to the lumberjack steady employment in one and the same forest or sawmill, while to the owner, an annual yield offers approximately equal annual dividends.

Where no yield is possible for a series of years, the outlay of taxes, protection and administration usually prohibits the owner from attempting conservation.

The Tending of Woods.

In the management of growing woods, attention must be given, not only to the immediate wants of a crop, but also to the preservation of the fertility of the soil.

An intimate relationship exists between the forest and the forest soil. Leaves, needles and dead twigs, cast down by the trees, form a mulch of decomposed and decomposing organic matter. This mulch or humus is very valuable to the forester as it supplies plant food to the tree; it retains moisture in the soil and absorbs it from a damp atmosphere; it lessens or breaks up a stiff soil and makes an overloose soil compact. The preservation of this valuable product ought to be the constant care of the forester. Its presence, as mentioned above, makes a poor soil rich; without it, even the good soil deteriorates.

Weeding or Preliminary Thinning.

This operation takes place after a young crop has been commenced, from seeding or planting. In other words, the term "weeding" implies the act of removing early material not intended to take part in the development of the wood. This condition is usually brought about by keeping the young plants close together and limiting the light to the upper portion of the crowns. In places where the young trees are apt to suffer badly from bending or crushing by snow, it has been found best to merely take the tops from undesirable members rather than to at once cut them away entirely.

"Weedings" should be begun early, be carefully carried out, and confined to the clearing away of individuals that threaten to injure the welfare of the young wood.

Thinnings.

Late "weeding" and early "thinning" are similar in that they consist in the removal of wide-spreading, misshapen, and other objectionable trees. As crowding begins to have its effect, the dead and dying trees increase in number, and the young wood should be relieved of these. The first thinning usually takes place from the fifteenth to thirtieth years. Nothing but the cost of operation need deter the forester from making a thinning at any time. no matter how early.

The object of thinning from a sylvicultural standpoint, may be defined as the production of straight healthy stems of proportionate diameters but free from side branches. Through the maintenance of a very close crop in the early periods of growth, the later thinnings may be devoted more and more to the development of the better trees. This consists in the removal of trees that have recently passed into a sickly, dying and dead condition.

There is a struggle for existence in woods of proper density which continues through the life of the wood. This struggle is chiefly among the crowns, which compete with each other for space and light. This competition is due to there being more trees upon the area than can possibly grow and live. As the light is to be had from above only, all the trees press upward in long, straight growths. The shade of the crowns has, further, the effect of making clean stems by ridding the trees of their side branches.

Because of these influences imposed by density, certain cuttings and thinnings become essential; the frequency of thinnings is determined by the energy of growth in the woods' development. In young woods the interval is generally about five or six years, and in older woods, ten to fifteen years.

Crown development, therefore, is the guide for carrying out thinnings. Three general sections may be considered, the Dominant, Co-dominant or secondary, and dead trees.

1. Dominant trees are those which possess well-formed crowns and occupying the upper position in the crop.
2. Co-dominant trees comprise the lagging, overtopped, and dying stems.

Trees are constantly being crowded out of the principal into the inferior classes. Occasionally, however, a portion of the crop raises itself from the latter to the former class.

Attention to soil and wood crop and the increase of the total production of good and useful timber are the objects aimed at in the modern system of thinning. The yield which the cuttings give is of minor importance.

Uses of Thinnings.

The practical results derived from thinnings are as follows:

1. Improved quality of product. The forester can develop timber of high quality, produce good merchantable lengths and obtain even the straight-grained lumber. He also reduces the percentage of crooked and forked trees.
2. Rapid growth of trees. A crop can be in a mature state several years earlier than without thinning.
3. Total yield is increased.
4. Better and more cordwood.
5. Less danger from fire, as the débris, slash, etc., is removed.

Sylviculture covers a large field and involves several other subjects not mentioned in this discussion. The formation of woods by seeding and planting could be handled more in detail, as well as describing nurseries, testing seeds, collecting and storing seeds, methods of sowing, soil cultivation, planting, transplanting, etc., but that would be going into a detailed discussion and this chapter was intended merely as a general one.

Pruning.

Natural pruning is the rule in sylviculture. The crowns in a close wood monopolize the light and compel the lower branches to die through overshading. But, there are cases when artificial pruning is required, to prevent young plants being harmed by the branches of larger trees suppressing them. Pruning carried out to increase the commercial value of the timber should be restricted to the removal of dead and the lower of the weak green branches. Trees with strong lower branches left as shelter or for seed when regenerating forest ground, are often pruned to relieve the young crop at a time when their complete removal would be dangerous.

The season for pruning is usually from October to February or the early part of the winter.

Forest Protection.

By forest protection is meant the preservation of forests against damage by man and that brought about by natural influences, such as animals, noxious plants and atmospheric influences.

1. Forest protection against damage caused by man. In safeguarding the forest against the advances and trespass of man, it is of vital importance that all boundaries of the forest be defined by means of landmarks. Artificial landmarks, such as fences, ditches, stones and stakes, are the usual form used in marking boundaries.

2. Protection against fire. In virgin forests, fires originate in clearing land for farming, lumbering, in extending pasturage, in failing to extinguish camp fires, etc. They are generally the result of carelessness or recklessness, the throwing away of lighted matches, cigar and cigarette butts, lack of proper attention to fires lighted for the disposal of slash, lightning, and various other causes. Occasionally, they can be traced to incendiarism, and sparks from railway engines are also very dangerous. For these reasons, the United States seems to be subject to large forest fires annually.

Forest fires are most common during the summer months, especially after a long period of drought. Young coniferous woods are those most liable to fire because the soil covering of needles and twigs is very inflammable, and, when lighted leads not only to its own destruction, but generally to that of the trees as well.

Forest fires may be divided into the following three classes:

1. Surface fires: The commonest form, a burning of the litter or soil covering of leaves, twigs, grass, etc.
2. Crown fires so frequent and disastrous in the United States. These burn the crowns (foliage and branches), and usually originate from surface fires.
3. Ground or deep soil fires which on account of the peaty nature of the soil burn slowly but persistently. Practically the only way to extinguish a fire of this nature is to cut trenches down to the mineral soil, when the peat is not too deep, and run water along the trenches or flood the area.

The character of a fire is greatly influenced by the condition of the atmosphere. The greater the velocity of the wind the more rapid the progress of the fire. A fire burns more severely when the wind is constant than when it is gusty, and burns more fiercely when the atmosphere is dry. Fires therefore, are more severe during the hot part of the day and are retarded at night when the atmosphere is moist. The assertion often made that night is the best time to fight fire is thus explained. At night the air is usually damp and heavy, accompanied by little or no wind.

Preventing Fires.

Preventive measures should aim at lessening the risk and limiting the extent of forest fires as much as possible.

A system of fire lines, that is, intersecting or joining trails should be arranged through the forest, a patrol system, telephone system, and lookout stations manned by responsible men should also be installed. Above all, have an efficient fire-preventing and fire-fighting organization. The fire lines would prove valuable, both as a means of transportation, as well as a means to back fire from, and the other systems, mentioned above, would afford a means of quickly detecting and locating fires, as well as notifying the proper authorities when in need of assistance.

Restrictions as to lighting fires within the forest and the smoking of tobacco should be made, coming into effect during the dangerous season of the year at least. Locomotives passing through forest areas should be equipped with spark arresters to prevent the throwing of live cinders and sparks.

Nearly all forest fires start as surface fires, but once under way, can easily enough develop into crown fires. At first the front of a surface fire is narrow, but gradually, with its increase in velocity, due to the draught, widens and takes the form of a broad irregular line. This front may develop in proportions from a few feet to a number of miles in width. Of course, the intensity of a surface fire will depend greatly upon the inflammable material, topography, character of soil and the atmospheric condition. Forest fires are usually fought by means of trails, constructed around a fire. These trails are patroled until the fire is out to prevent its crossing and spreading. Since fire runs up hill with a greater rapidity than down, trails should be constructed along the tops and bottoms of ridges, so far as conditions will permit. Such fires do less damage, they burning with greater velocity than those located on level ground where fires burn steadily, gathering greater volume and extending over vast areas.

In fighting fires in California, it is usually necessary to back fire. Back firing consists in burning along the fire lines toward the burning area. It proceeds slowly against the wind and prevents the main fire from "jumping" the "line." In this way the force of the fire is broken. A careful watch must be kept until the danger of a new outbreak has passed. Any practical plan of fire protection must be reinforced by State fire laws, and a competent organization to enforce them.

Damage by Fire.

The more important damages caused by fire are:

1. Injury to the soil and ground cover.
2. Injury or death to standing timber.
3. Killing reproduction.
4. Destruction of game and its food supply.
5. Financial loss.

1. Injury to the soil and ground cover. In every forest a certain amount of humus is mixed with the mineral soil and is very essential to good ground cover. If a forest is burned, the humus in mixture with the mineral soil, gradually disappears, and since the leaves which fall are destroyed and no new humus is formed, the soil is injured. Fires, by destroying the humus, make the soil susceptible to erosion, thus taking away the moisture-holding ability of the ground cover.

2. Injury or death to standing timber. Many trees, and especially young trees, are entirely consumed by fire. If they are not burned outright, they usually are so badly scorched that the buds, foliage and living tissues are killed. Surface and ground fires both are very dangerous in this respect, the latter burning slower but nevertheless generating enough heat to kill the living tissues of the roots. Many fires do not kill a tree outright, but merely kill a portion of the roots or trunks. A tree being burned on one side, which is usually the case, may live for a long period and if the wound is not large it may heal. Commonly, when one side of a tree is killed, fungus diseases attack it, and trees partially injured and weakened by fire are subject to the attack of insects.

3. Killing reproduction. The greatest damage done by fire is that of destroying the young growth. They burn easily, especially the conifers which usually are totally destroyed. Light fires which often run over the ground and which are often thought of no consequence, destroy the seeds in the surface soil and the young tree seedlings, besides injuring the forest floor. This state of affairs will not warrant the reproduction of a forest.

4. Destruction of game. When the forest is burned, our valuable game goes to other regions. They are either killed outright or must seek shelter and feeding grounds elsewhere. This is of vital importance to the sportsman if he will have

game to hunt in the future and he should assist in every manner possible to protect our forests against fire. Game must have feeding grounds and forest fires make this impossible.

5. Financial loss. Valuable timber holdings and oftentimes homes, are totally destroyed by forest fires, thus rendering many penniless and homeless. Again, as in the case of the big fires of 1910 in Idaho and Montana, many lives were lost. Is not fire protection worthy of our attention?

Protection against Mammals and Birds.

The animals, harmful to woods, may be considered in the following order:

1. Domestic grazing animals.
2. Game and rodents.

1. Domestic grazing animals destroy the forest by nibbling buds, shoots, and leaves, trampling upon seedlings and young growth and in various other ways. Goats and sheep are the most harmful, they killing the young growth. Cattle in a forest do not damage trees to a very great extent, preferring grass if it be present; still, both they and horses bite and tear plants, as well as injuring surface roots by treading. These animals therefore should be allowed entrance only when they can do the minimum of damage.

2. Game and rodents. A great number of the woods in the country have been regarded as harbors for game. This is true and game will always, if protected properly, live in the forest; it is their home. Nevertheless, in many cases, game is damaging our forests.

The most harmful of the animals considered as game, is the rabbit. It bites and gnaws the bark of woody plants, and nibbles the young shoots of practically all species of forest trees. Rabbits multiply very rapidly, and, because of their great numbers, do considerable damage. Deer also injure young trees very seriously by browsing on the twigs and by rubbing off the velvet from their horns. In doing the latter, the buck usually selects young and slender trees.

Rodents: Of the small rodents, squirrels and mice inflict the most damage. The squirrel is well known to eat and stow away seeds and to bite off twigs for the sake of the buds on which he feeds. It also has a habit of stripping the bark from young trees.

Mice do serious damage by gnawing the bark of young trees, eating acorns and beech nuts and wasting seed beds in nurseries. The wood or field mouse kills plants by severing the roots just below the surface of the ground and by gnawing the stems. When planting in a nursery therefore the seeds should first be coated with red lead.

Birds are troublesome, chiefly in the forest nursery, where they scratch up the seeds, or first leaves. However, most birds, by destroying insects, are much more useful than injurious.

Protection against Insects.

Now we are all familiar with animals and rodents, but did you ever sit down on an old log and notice the myriads of ants, beetles, butterflies and other members of the insect army? They are numerous to be sure and to every animal, there are many insects in a forest. In this vast army of insects the forest has many enemies, some of which do a great deal of harm. In fact, next to fire the greatest damage to forests is done by insects. Sometimes, because of their great numbers vast areas of forests are attacked and rendered worthless. Their damage is generally most severe after forests have been burned. Perhaps the most extensive damage is that done by bark beetles, which burrow in the inner bark of the trunk and girdle the trees.

Damage due to Natural Influences.

The forest is exposed to many dangers difficult to fight, but it is practically defenseless against such elements as storm, snow, frost and drought. Yet, even in resistance to these, man has devised certain measures, which, while they are not able at all times to prevent damage, can frequently retard to a certain extent.

Storm.

Wind storms may affect quite an area, cutting out strips or belts of trees and leaving the rest of the forest untouched: or they may be more scattered. It is when gales follow immediately upon heavy rains that have saturated the soil with water, that they prove most destructive, for the soft ground is then least able to support the roots. The direct damage caused by wind is that of throwing or uprooting the trees, or of breaking the trunk above the surface of the ground. The latter causes the greatest loss.

Of course there is no way of protecting forests against tornadoes, but for ordinary winds and gales, some steps may be adopted. A forest can be made more wind firm by mixing shallow-rooted with deep-rooted species. Windbreaks may be built along exposed borders of woods and a forest may be thinned from youth onward so that stout, thick branched, storm-resistant trees result.

Snow.

Damp snow falling in large flakes clings to trees, and in case of the pine or spruce it is apt to form a continuous cover upon the crowns of a close forest. This, owing to its great weight, bends and breaks the trees, the danger being increased if frost follows the snowstorm and prolongs the time which the trees must support the burden.

Broad-leaved trees are able to resist damage from snow much more readily than conifers, in that they are without foliage in winter. With them, injury is possible only when snowfall takes place unusually early or late.

Very little can be done in defending woods against snow; but careful planting, together with early and frequent thinning, help materially in saving the trees.

Danger from frost and drought is to be feared chiefly during the plants' early youth. Natural regeneration may here be necessary, as the old growth will protect the young. For work in the forest nursery, artificial shading and covering weak species with branches and leaves should be made.

Injuries which may result from frost and the sun are:

1. Frost cracks.
2. Frost lifting.
3. Bark scorching.

1. Frost cracks are longitudinal fissures in the stem caused by intense cold in winter; starting at the bark, they reach more or less deeply into the wood, and may even penetrate to the center of the trees. In some cases these cracks are healed over, but usually are reopened, making the crack larger each season. Oak and elm are frequently subjected to frost cracks.

2. Frost-lifting affects small plants on loose soil. Owing to the freezing of the water present, the soil is heaved up and seedlings with shallow roots are raised with it; the soil regains its former position when warm weather sets in, but the small plants which have been torn away fall over on the surface of the soil and die.

To prevent frost-lifting, avoid stirring the surface soil of nurseries in late summer or autumn and provide a covering of leaves, needles and moss.

3. Bark-scorching occurs on all smooth bark trees; the bark becomes excessively heated by the sun—usually on the west side of the tree—dies, cracks and falls off. Underneath, the sunburned wood is then apt to be destroyed by rotting. Trees with low branches are seldom harmed.

USES OF FORESTRY.

Besides its value as a protective agent as discussed in "The Importance of Forests," forestry plays an important part in sheltering farm crops and orchards from strong winds and avoiding sand dunes and snowslides when in the form of windbreaks. The Middle States have practiced wind-break culture for several years, but the enthusiasm is dying out, owing to the fact that the young farmers have never experienced the period of strong winds which prevailed in the early days, endangering their stock and making their homes almost uninhabitable. They are unable, therefore, to fully appreciate the importance of the wind-breaks built by their fathers.

Railroads are particularly interested in wind-breaks for snow protection, since even a light snow may cause serious damage to traffic. Consequently, to protect their tracks from snow, railroads have, in mountainous regions, constructed miles of snowsheds at considerable expense, and in open country have placed board fences to act as wind-breaks on the windward side of the track. In time, these will be replaced with forest growth, for undoubtedly railroad companies will save much money by so doing. However, a wider right of way will be necessary, and this seems to be the chief objection.

The value of wind-breaks to farmers and ranchers is well in mind, so we will not discuss it any more.

Another very important asset to the rancher is the farm wood lot. Wood lots, the purpose of which is to furnish a wood supply, when properly managed will not only supply the rancher with fuel, but will also provide a means of carrying on a profitable business.

The sugar bush or maple syrup and maple sugar industry is also a profitable proposition which ranchers can practice, because there is always a demand for sugar and syrup.

The growing of medicinal plants has proven profitable in several localities throughout the United States, and really this item should be considered seriously, for there is a perceptible shortage of wild growing native medicinal plants in this country. For this reason, medicinal plants would always find a ready market. For further reading matter on this subject, write to the State Forester for Bulletin No. 2, entitled "Pharmacal Plants and their Culture."

In addition to the projects already mentioned, the growing of Christmas trees has been very profitable in the Lake States. In one case a farmer made a profit of $2,000 from a ten acre tract of black spruce in the short period of seven years.

Forest nurseries all over the country are finding it profitable to grow young trees for forest planting purposes; one can readily see there the vast field for beneficial and profitable uses of forestry.

Mensuration.

By mensuration is meant the determination of the volumes of a forest crop—for instance, determining the volumes of trees, logs, and tracts of timber. This involves cruising, scaling, taking measurements and the making of yield and growth tables, for determining both present and possible future yields. A thorough knowledge of mensuration is essential to one buying or selling logs, determining the value of forests, and especially is it essential to the lumberman.

The unit of measure used in this country for buying and selling logs or tracts of timber is the board measure or board foot. When a man or company wishes to buy logs the question to be determined usually is, what does the tract run per acre, or how many thousand feet of logs have you got on your decks? A board foot is a board 1 by 12 by 12, that is, a board measuring one inch thick, twelve inches wide and twelve inches long. Hence, all measurements referring to the volumes of logs and timber are in board feet. Therefore, to determine the contents of any piece of lumber, multiply the product of the width and thickness in inches by the length in feet and divide by twelve. Thus:

$$\text{A 3 by 6 board 12 feet long has } \frac{3 \text{ by } 6 \text{ by } 12}{12} = 18 \text{ board feet.}$$

The above formula is applicable to sawn lumber only when you have regular measurements. But, as can readily be seen, the board foot contained in a round log could not be determined in this way. In the United States logs are measured in board feet. For this purpose many different log rules or scales for different specie and locality have been constructed. A log rule or scale is supposed to show the amount of lumber which it is estimated can be sawn from a log of a certain diameter and length.

Several conditions must be considered in constructing log rules and for this reason, and because of variance in opinions concerning these conditions, log rules are very inconsistent.

The factors usually taken in consideration in constructing log rules are:

1. Allowance for slab, which is the first piece sawn from a log before actual lumber is obtained. This of course determines the width of the smallest board which may be used, and much waste can result. As an example, if a board eight inches in width is the narrowest that can be used, there will be considerably more waste in slabbing than if a four inch board could be sawn.

2. Kerf or thickness of the saw is important, in that a thick saw will waste more in sawdust than a thin one. In this respect the modern band saw with its kerf of $\frac{1}{8}$ or 3-16 inch is less wasteful than the old-time circular saw, the latter wasting $\frac{1}{4}$ or 5-16 inches every time it goes through a board.

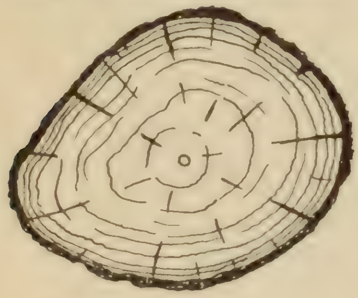
3. Thickness of boards. The fewer the cuts in a log the greater the scale. Thus a log sawed into three or two inch boards will scale more and be less wasteful than one cut into half inch or inch boards.

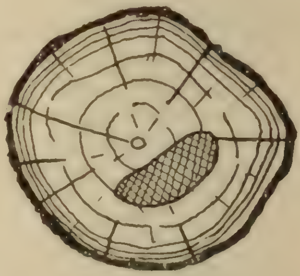
4. The sawyer's judgment is very essential, in that it is his duty and object to get as much lumber with the least waste in slabbing and kerf as possible. Of course he has his stock to fill, but at that he saves all that he can. It means money in the pocket to the millman, and for this reason it behooves him to get the best sawyer available. Other factors which must be considered in constructing log rules are, the defects in itmber, efficiency of mill machinery and the taper of trees.

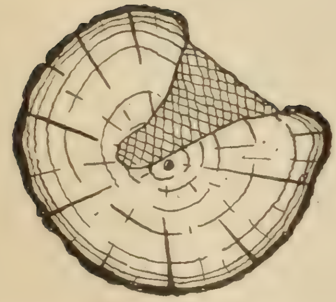
For the above reasons many log rules are in existence and it is hard to say which one is best, a different one being used in nearly every locality. However, the Scribner and Doyle rules are perhaps the best known. The Scribner is the oldest, while the Doyle is used throughout the country, generally speaking. The former is based on computations derived from diagrams drawn to show the number of inch boards that can be sawed from logs of different sizes after allowing for waste, and the Doyle rule is constructed from formula. Following is the formula: Subtract four inches from the diameter of a given log, which is the allowance made for slab; square one fourth of the remainder and multiply by the length of the log.

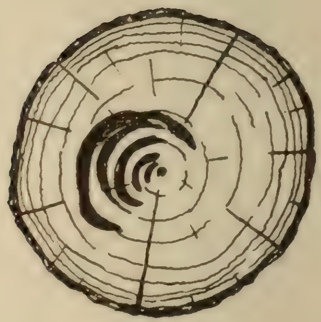
In practice, these figures are placed on a scale or log stick so that on one edge one may find the diameter and directly opposite on its face the contents of the log. Thus, when the "scaler," the title given to the man scaling, wishes to ascertain the contents of a log, the scale is placed on the small end and the diameter inside the bark is noted. The contents may be found directly above on the faced side of the rule. Each line of figures on a scale represents the board feet for one length of log, the length being noted on the left end of the scale. So, when looking for the contents, follow the line of figures representing the length of the log you are scaling. The scaler must be a man of wide experience. It may seem to be an easy operation and one necessitating no skill whatever, to a person unfamiliar with timber; and it would be if all the logs on a skidway were sound and straight. Such is not the case, however, for many logs are cracked, forked, lop-sided and rotten, making deductions necessary when scaling. For these reasons skill is required and oftentimes the scaler must decide whether or not to "cull" certain logs.

The following figures show some of the defects encountered by scalers when determining diameters. (Shaded portions denote defects of rot, wind shake, etc.)









Scaling Logs.

In the New England and Lake States, where logs are cut into short lengths and decked on skidways, a log scaling crew usually consists of two men, one man scaling and stamping while the other tallys or records. However, in many localities only one man is necessary. In measuring the diameters of logs they are rounded to whole inches. Thus, if a log is nearer nine than eight inches in diameter, the log is tallied nine inches. Many careful scalers, however, take the small figure, especially when buying logs for veneering purposes, where the rotary cut must be considered.

When logs are not round, the rule is placed at a point on the log where the diameter is about an average.

The records are commonly made on a blank book or wooden scale paddle in the woods, from which later, in camp, they may be transferred to the regular log tally sheets. In recording measurements the most simple and common way is to tally diameters and lengths, and afterward computing the volume, or, record at the skidway the board contents of each log when scaling.

When a log has been scaled it is usually marked in some way so as not to be scaled a second time. This is usually done with chalk. A log to be culled receives a special mark.

At this time or later the logs are stamped with the marking hammer which bears the proprietor's initial or particular trademark. The principles of scaling are practically the same in any region where short logs are cut. Logs loaded on cars in the woods are usually scaled after loading and on a "drive" logs are scaled before being "spilled" into the river.

Now that the unit of measure, the log rule and its application are in mind, let us turn our attention to the ascertaining of the volume of standing timber properly termed "cruising" or "estimating." Before taking up the various methods of timber cruising volume tables will be discussed. These are used by foresters in surveys.

Volume tables give the average contents of trees of different sizes and may be made for any unit, such as board measure, cubic, cord, etc. And, again, they may be constructed for different localities. The latter is the type used in the United States. They are based on measurements taken in some certain locality and therefore must be made for each new region, say for a township, or any fairly sized area of timber which is to be estimated. Volume tables for trees of different diameters are perhaps the most simple and are in common use in estimating the contents of standing timber. To obtain the total contents of trees of any given diameter, multiply the number of trees by the volume given in the table for that diameter. Thus, if the average volume of a tree 12 inches in diameter is 18 board feet, and you have 200 trees of this diameter, 18 by 200, or 3,600 board feet is the volume. Do this for each diameter to obtain the total volume of the stand.

Method of Constructing Volume Tables.

The tables are based on measurements and computations of large numbers of felled trees and are usually obtained during lumbering operations. A crew of two or three men follow the woodsmen and measure the trees as they are cut.

The measurements necessary in constructing volume tables are:

1. Diameter at breast high (4.5 feet from the ground).
2. Diameter at each cross section, inside and outside bark.
3. Length of each log.
4. Length of top above last log cut, and
5. Height of stump. The total of these lengths will then give total length of the tree.

About 500 trees at least should be measured where timber is uniform. This will give good results for careful cruising, but when only a rough cruise is desired, 100 trees will suffice. Measurements should be made of the average trees of each diameter throughout regardless of total height. In other words, each tree should be a representative of its class. If 100 trees are to be measured care should be taken that the diameters are well distributed.

With the above data, the volume of each tree can readily be computed. To obtain the volume of a log, multiply the average basal area by its length—that is, look up the table of basal areas corresponding to the end diameters of your log, and multiply the average by the length. To obtain the volume of the cone, or top of tree above the last log cut, multiply its basal area by one third the altitude or length. The total of these figures will denote the cubic contents of your tree.

Now that the volumes of all the trees have been calculated, arrange them by species in diameter groups or classes and take their average. This is best illustrated by the following sample table:

Specie, Sugar Pine—Volume table of different diameters.

Diameter, class breast high (inches).	Average diameter of trees measured breast high (inches).	Number of trees measured.	Average volume of trees measured (cubic feet).	Average results of column 4 evened off by curve (cubic feet).
6	6.15	6	4.8	4.6
8	8.25	20	7.6	7.2
10	10.00	15	11.8	11.4
12	12.20	14	17.0	17.8

For convenience, a curve is now constructed, and is obtained by plotting the figures computed in columns 4 and 2 on cross section paper, as ordinates and abscissæ, respectively. So, for the final results in column 5, the values are read direct from the curve.

The volume table just described is only one of the many types which may be constructed. They are made to suit the purpose for which they are to be used. Other types which may be constructed are: Tables for trees grouped by diameter and number of logs and for trees of different diameters and heights, etc.

"Cruising" or "Estimating."

Volume tables are of aid to the timber cruisers in that they greatly simplify the computation of the contents of stands. When a lumberman or company buys a tract of timber or are going to log or sell, they usually wish to know beforehand how much timber can be obtained. This is done by cruising or estimating. There are many experienced loggers, land lookers, timber estimators and cruisers who make a business of determining the merchantable contents of timber tracts, and these men are so familiar with trees that determining the board feet in a single tree or giving an approximate yield per acre is second nature to them. Timber cruising cannot be learned from books, for it requires good common sense and judgment, which is obtained only through long experience and practice in the woods. A good cruiser is able to judge by the eye the merchantable contents of trees and stands, by having seen other trees and stands of the same character cut and used, and he knows by comparison, therefore, as to what they ought to produce. He must be familiar with logging conditions, with the defects of trees and the allowances necessary. He must know the cost of logging and other conditions existing in order to ascertain what trees are merchantable from the point of size and condition. For these reasons, and they are apparent enough, books cannot make timber cruisers or estimators.

There are several methods used by cruisers in estimating timber and only one, that used by the foresters, will be considered here. The old-time cruiser usually being in a hurry to get quick results and still accurate as possible, used his eye and judgment. However, this is not the case with foresters, for usually more data is desired and careful surveys are always made.

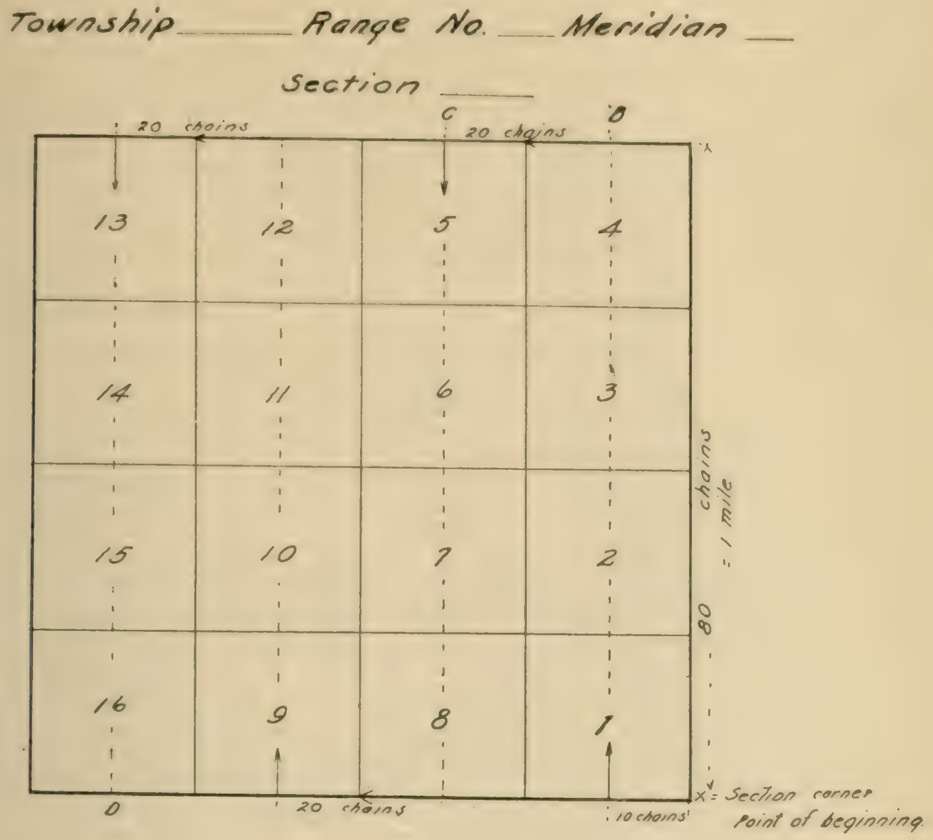
Following is their method, called the *Strip Method*, and it is considered an accurate one:

The principle underlying the use of strip valuation surveys is the measurement of trees in narrow strips distributed systematically over the forest and covering a specified proportion of the total area. In practice of the Forest Service, the strip surveys are one chain, or 4 rods wide, and 10 chains or 40 rods long, so each covers just one acre. If carried on in this manner, the tree measurements and forest descriptions of each acre may be kept distinct.

Four men usually constitute a crew, one man lays the direction of the strip with a compass and carries the forward end of of the chain, two men caliper the trees, and the fourth acts as tail chainman and tallyman; he also makes any necessary descriptive notes. The strip is measured lengthways—that is, stretched on the ground. The trees within an estimated distance of 33 feet (one half chain) on each side of the chain are then calipered and "called off" to the tally man, who records them. Then the crew moves forward another chain, repeating the process until 10 chains (one acre) have been measured. Then proceed until "forty" is finished, which is 20 chains or 80 rods, and then go on to the next "forty."

The Forest Service uses the strip method not only to obtain estimates of the merchantable timber, but also to secure a count of the trees not yet merchantable, to make forest maps and to gather other detailed information necessary to a practical working plan. Under these circumstances, lines of strip surveys are usually laid off parallel and equidistant, and run across the whole tract or as far as the day's work will permit.

The following figure is drawn to illustrate the procedure in cruising a section. It is customary first to locate the tract, which is done by resurveying and locating lines and corners. While carrying on this survey, notes regarding topography and the descriptions of corners found should be kept. Two men usually constitute a "line running" party.



A section contains sixteen "40's" or 640 acres, so for convenience, the "40's" are numbered so method can be followed.

Beginning at the S. E. corner of the section marked x, run a line 10 chains W., which will bring us to the center of the "forty." Now, run N. 80 chains through the "forties" numbered 1, 2, 3 and 4. Having arrived at B proceed to C and then go on as before, going through the remaining "forties" as numbered. When arriving at D in the "forty" numbered 16, run W. 10 chains to "tie in" with the section corner. The latter acts as a check against error in compass work and chaining.

Calipering the Trees.

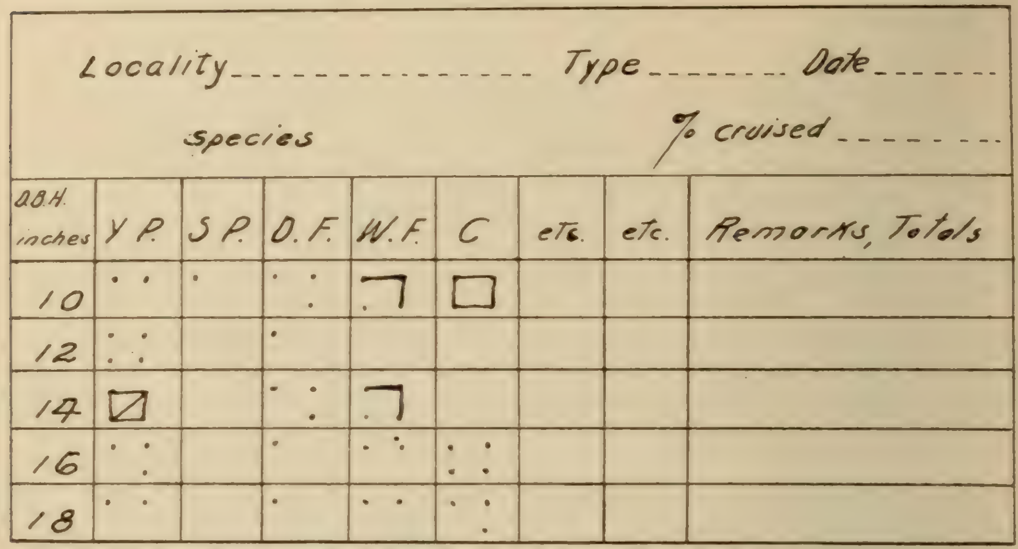
Trees are calipered to the nearest inch at breast high, or the trees may be divided into diameter classes of two or more inches. By diameter breast high (D. B. H.) is meant the measurement taken of a tree at 4.5 feet from the ground and one should be careful and not take diameters below D. B. H. In estimating merchantable timber, only the sound marketable trees are included, because many errors result from counting unsound trees. Great care must be exercised to scrutinize each tree for signs of defect. This is very important for many inexperienced and careless men will measure trees which may appear sound but which really are defective. A cruiser must recognize the external signs, of punk knots, white broken top, or dead limbs, for defects.

Recording Measurements.

The diameter measurements are recorded in a tally sheet note book, the tally sheet being ruled in columns: The first column shows the diameter classes by inches or by groups of 2 or more inches, and the other columns are for various species.

The trees are tallied by dots and lines, in blocks of ten.

Following is a sample tally sheet to show methods of tallying.



Locality................ Type........ Date.......

Species % cruised........

D.B.H. inches	Y.P.	S.P.	D.F.	W.F.	C	etc.	etc.	Remarks, Totals
10								
12								
14								
16								
18								

Computation.

Usually the sample strips comprise 5 per cent to 10 per cent of the total area and this fact must be borne in mind when computing the volume of a stand. For instance, if you were to make a 5 per cent estimate, you will have covered two acres out of each forty or 1-20 of the forty, therefore to obtain the volume of the stand, multiply by 20 if 5 per cent and by 10 if 10 per cent and so on.

The computation may very easily be made in the following manner. Make four columns of figures as shown in the form. In the first column place the diameters, in the second, the number of trees of each diameter, in the third, the average contents of trees of the different diameters, and in the fourth, the total contents of all the trees of each diameter, which is found by multiplying together the values in the second and third columns. The figures in the fourth column are then added together for the total contents of the "forty."

Sugar Pine			
D.B.H. inches	Number of Trees	Contents of Tree from Vol table	Total Contents board ft.
12	20	80	1600
14	10	135	1350
16	55	200	11000
18	6	265	1590
Total - - - - - -			15540

Note –
Sample plot, a 5% cruise therefore, the whole "40" will contain 20 × 15540 or 310,800 board feet or $\frac{310,800}{40}$ = 7,770 board feet per acre

Another method and one which does not involve the use of a Volume Table is the estimate by counting logs.

This consists in going over a given tract by strips 4 rods wide (one chain), and their distance apart will depend on the proposition of area to be covered. The estimated top diameter of each merchantable log is recorded as well as the D. B. H.

If a crew of two men, one directs the strip with a compass line and paces the distance, while the other records the diameters of trees and logs. The compass man first paces off a short distance, say, one chain and waits until the tally-man records the trees in that distance and included with a four-rod strip.

The tally-man records the estimated top diameters of each 16, 14 and 12 foot log, their numbers and species. The following table is one showing method used, when only 16 foot logs are considered. Other columns may be added at will to record 14 and 12 foot logs. This may also be done in case D. B. H. and numbers of trees are recorded.

From this data the total contents by species and yield per acre may be determined.

The compass man notes the distance paced, the location of roads, trails, fences, etc., and any other information desired in the cruise. These land features may later be plotted on a map.

Top diameter	Species				
	S. P.	Y. P.	D. F.	W. F.	C
	Number of 16' logs				
6	10		8		10
8					11
10	12	9	7		
12	10			9	12
14	16		6		14
16		5	4		16

Computation.

These notes or records will enable the cruiser to determine the contents of logs by any log rule. They will also give the total number of trees, the average number of logs per tree, the number of trees and logs per thousand and the yield per acre. This method is very good in that you can "cull" cracked and defective logs.

After the total contents have been determined, a certain percentage is deducted to allow for defects.

One must have the ability to estimate diameters by eye as well as have a thorough knowledge of merchantable timber to use this method. It requires a trained eye and in general a good woodsman.

Growth of Trees.

Yield and growth tables play an important part in the determinations which a forester must make. Their purpose is to ascertain the yield and rate of growth of a stand, for in many cases a timberman desires data on the future conditions of his timber.

Diameter of Growth.

Trees grow by adding a layer of wood underneath the bark each year. This growth is termed annual growth, but perhaps more commonly referred to as the annual rings. In many cases they are hard to distinguish making the use of a hand lens necessary. Each ring signifies a year's growth, and the spring and summer wood is different, making the determination of a tree's age comparatively easy. The total age of a tree is shown by the accurate counting of the rings at the ground. Therefore, to determine the age of a tree count the rings on the stump and add the number of rings corresponding to the number of years required to grow as high as the stump. An examination of a number of small trees would give an idea of the time required to grow up to the stump height.

Many trees grow faster on one side than on another, so to get the average growth, determine the average radius and measure and count the rings along it. Then with the rule, this average, (from heart to inside back) is found by trial and a penciled line made. Beginning on the outside, the rings are counted in and a mark made to indicate each tenth ring. Usually the last period at the heart (or pith) will contain less than ten rings. The rule is then laid alongside this radius and the distance from the pith to the first mark entered under 1 (in the following table) putting in the corner of the space the odd years, thus 8-9. The distance from the heart to the second mark is then placed under 2, and so on. The last measurement will be the entire radius and must be exactly half the diameter inside the bark of the tree.

It can readily be seen, that with this data, the diameter and growth per year, ten years or at any period may be determined.

Tree class Dominant, Quality I, Crown length 50, Crown Normal

Cross Section.	Distance on average radius from heart to each 10th ring—inches. (Count in, measure out.) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 Stump.	8 / 9	1.5	1.9	24	28	35										
2	5 / .7	12	1.7	22												
3	2 / 2	8	13	18												
4	8 / 5	10	15													
5																
6																
7																
8																
9																
10																
11																
12																

Cross Section.	Distance on average radius from heart to each 10th ring—inches. (Count in, measure out.) 17	18	19	20	21	22	23	24	25	26	27	28	29	30		
1 Stump.																
2																
3																
4																

Remarks: Crown one-sided

Form and Condition: Cylindrical and vigorous

Height Growth.

The height growth is found by counting the rings at different sections (the different logs cut) and subtracting from the rings at the lowest cut. Remember to always add a number of years to cover stump growth.

For example: A sugar pine, 28 inches in diameter and 100 feet high, shows 170 rings on the stump 2 feet from the ground. Add 4 years as the time to grow these first 2 feet. This will show a total age of 174 years. The upper end of the first 16 foot long shows 160 rings; the second 150; the third 135; the fourth 115; the fifth 90 rings. The first 18 foot log (2 feet stump plus 16 feet log) grew in 174 — 160 or 14 years; the first 34 feet (2 plus 16 plus 16) in 174 — 150 or 24 years; the first 50 feet (2 plus 16 plus 16 plus 16) in 174 — 135 or 39 years; the first 66 feet (2 plus 16 plus 16 plus 16 plus 16) in 174 — 115 or 59 years. The first 82 feet (2 plus 16 plus 16 plus 16 plus 16 plus 16) in 174 — 90 or 84 years. The last 18 feet in 174—90 or 84 years. The last 18 feet in 174—84 or 90 years for their growth.

Volume-growth may be determined in the same manner as diameter-growth, the only difference being that the volume must be computed. In this way the growth for the last five or ten years may be determined and in case a future growth for this same period is desired, one may assume the volume in the immediate future to be the same as the last few years.

Another way of determining future growth in volume is to determine the growth in diameter at different parts of the tree during the last five or ten years and assume this growth to be the same during the coming five or ten years. By adding this growth and cubing it, you will have a tree to compare with your present tree. This method is not very accurate and will give too large results unless the volume growth is increasing.

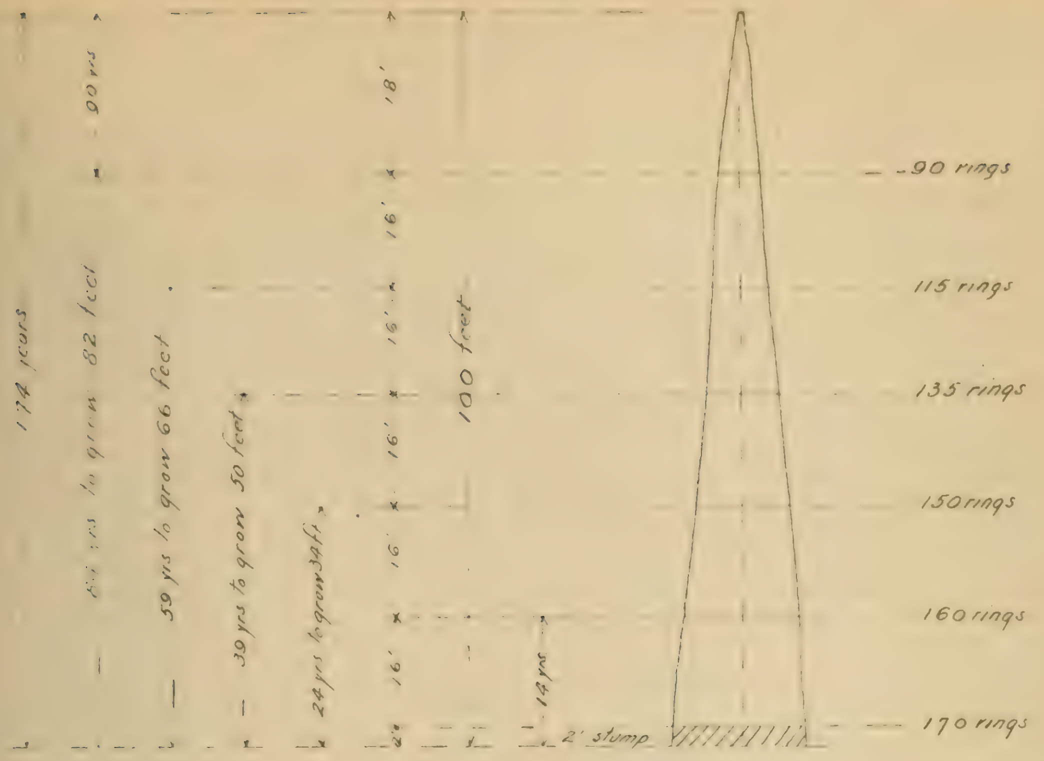


Figure for height growth

YIELD TABLES.

The construction of yield tables as described by Professor H. S. Graves of Yale University is as follows: First, construct for each forest type a table giving the average number of trees of different diameters of the valuation areas. This will represent an average of all the acres surveyed in a given type, and enables one to compute the volume of the merchantable trees above any desired diameter limit, with the use of volume tables.

The next step is to determine the future yield after lumbering. The table shows the number of trees now standing below the diameter limit. This portion of the table is corrected to show the number of trees which probably will be standing at the time of the second cut. One who has a knowledge of logging can easily see what corrections to make.

The table of growth of trees of different diameters is then used to determine the size of trees in 10, 20 and 30 years after cutting, assuming of course, in using the table that a tree of certain diameter will grow at the rate shown, until it becomes one inch larger and that it will then grow at a rate shown in the table for that larger size.

With the above principles in mind, a table is made showing the condition of the stand now, in 10, 20 and 30 years after logging. As an illustration, the following table is made and from which the yield table in its final form may be constructed.

An allowance is usually made for death during and after the first cutting of 5, 7 and 10 per cent in 10, 20 and 30 years respectively.

Computation of yield per acre. Cutting to diameter limit of 12 inches.

Diameter.	Present condition.				Condition in 10 years.				Condition in 20 years.				Condition in 30 years.			
	Number of trees	Volume average tree from volume table. (board feet)	Total volume (board feet)	Annual growth in diameter. (inches)	Diameter. (inches)	Number of trees	Volume average tree. (board feet)	Total volume (board feet)	Diameter. (inches)	Number of trees	Volume average tree. (board feet)	Total volume (board feet)	Diameter. (inches)	Number of trees	Volume average tree. (board feet)	Total volume (board feet)
6 inches	10			.10												
8 inches	7			.125									12.2	3.7	81	300
10 inches	5			.150									14.7	4.8	138	662.4
12 inches	3	81	290	.170												
14 inches	2	120	230	.185												
16 inches	2	175	208	.20												
18 inches	1	240	145													
20 inches	0.3	295	89													
22 inches	0.2	390	78													
Totals	30.5		1,040													962.4

Yield and growth tables, like volume tables, are useless unless used in the locality where made.

Instruments.

The field instruments of common use to the cruiser, or woodsman will now briefly be discussed.

The compass is the most important instrument and is used for running lines, taking bearings etc. in the woods. They vary in pattern and manufacture but the general principle is always the same, *i. e.*, that of having a magnetic needle always pointing in a northerly direction.

The chain, used in measuring distances when surveying, is 66 feet long (4 rods) and is made of 100 steel links, each 7.92 inches in length.

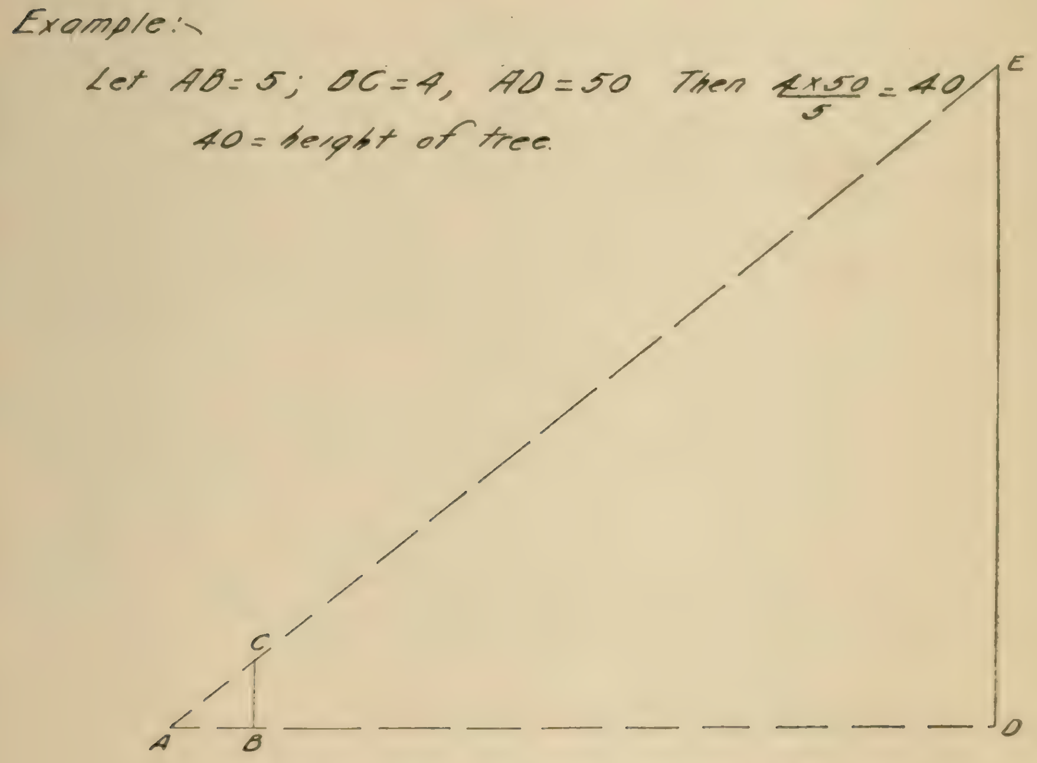
There are also tapes of different lengths used in measuring the circumference of the larger trees, such as the redwoods in California. The diameter of a given circumference may be read direct by reading the other side of the tape.

Calipers are used for measuring diameters, and consist of a beam having a scale on both sides, graduated in inches and tenths. This beam is provided at one end with an arm held in place by a bolt and nut which permit it to be detached for transportation. The beam is also provided with a sliding arm fitted loosely, so as to slide easily over it. To caliper a tree then, slide the loose arm sufficiently to permit measuring the tree. Calipers are usually made of seasoned maple.

Other instruments which are useful are height instruments, tree counters, increment borers, and so on.

A simple method of determining the height of a tree, without the use of a height instrument is as follows: The observer walks to a distance from the foot of the tree about equal to its estimated height. He then lies on his back, stretched at full length, and notes on a vertical staff erected at his feet, the point where his line of vision to the top of the tree crosses. The height of this point from the ground B C (in figure) is measured and his own height from his feet to his eyes A B.

Then $AB : BC :: AD : DE$ or $\dfrac{BC : AD}{AB} = DE$



Example:-

Let $AB = 5$; $BC = 4$, $AD = 50$ Then $\frac{4 \times 50}{5} = 40$

40 = height of tree.

Figure to illustrate the determination of heights without instruments.

CUTTING SYSTEMS.

Lumbering methods as carried on by the present day lumberman are known, from careful examination and study, to be very wasteful and devastating. As a result, the forester sees the need of a systematic plan of cutting or logging standing timber. He not only considers the easiest and most economic way of removing timber but has in mind the results of such a cutting, what the future forest will be like, what species he will have and the yield in salable products. For these reasons, Cutting or Sylvicultural Systems, which are plans of management by which forests are developed and produced, have been advocated. Those of importance, with brief descriptions, are as follows:

I. The Selection System.
II. The Clear Cutting System.
III. The Shelterwood System.

I. The Selection system is applicable to forests having trees of all ages. When cutting, the old and mature trees are selected, leaving the remaining immature trees for protection and development. Thus reproduction is readily secured in the openings made by the cuttings.

The Selection System never clears a stand, but makes only small openings. The principles, however, which must never be lost sight of and which would be simple, if all age classes were represented in proper proportions, are:

1. The rate of growth of a stand must be maintained, and
2. A proper representation of age classes must be continued.

In other words, some definite plan restricting the cut must be followed in order to make the system possible.

II. The Clear Cutting System takes place when all the trees are removed. The entire stand may be cleared in one operation or in several, but the design is to cut the whole stand and replace it with new growth. Some of the conditions requiring clear cutting are:

1. Where there is an even aged stand and the trees are large and mature.
2. When from a financial standpoint (location of logging camps, etc.) it is deemed feasible.
3. Danger from wind fall.
4. Where a clearing is necessary for good natural reproduction.
5. When better species than those in the original stand are desired and which can be obtained artificially.

Naturally, there are many disadvantages to a clear cutting system, such as leaving exposed to the sun and wind the young growth, insect damage, etc., but this all depends on the size of clearings, and therefore large clearings should be avoided as much as possible.

III. Shelterwood System: This system like the others is applicable in different forest types, according as the forests vary in age and reproduction capacity, but usually the method is best adapted to those stands in which the timber is all, or nearly all, mature, where the trees are wind firm and where market conditions will warrant the partial removal of the stand.

The mature stands require a system which will remove the timber in a certain period and replace it with a new even-aged stand. The selection system, therefore, is out of the question, as the principle underlying the Shelterwood System is to remove a stand gradually by a series of thinnings. The opening, in this manner, of the canopy permits the young trees to grow under the protective shelter of the trees left standing.

Many foresters and lumbermen agree that the best method is to remove the timber in two operations, separated by a ten or twenty year period. The first cutting or thinning is intended to secure the conditions required for reproduction and the next, or final cutting, is made after reproduction has been secured.

Some of the advantages in using this system are:

1. It permits the rapid removal of a forest.
2. The poorer grades and decaying timber are used.
3. Good reproduction is secured (insuring a good second cut).
4. The trees left standing will grow rapidly and will enlarge the second cut.

Reproduction After Clear Cutting.

Reproduction is obtained by artificial seeding and planting, or by natural reproduction. Usually, both methods are used: that is, natural reproduction replaces the original stand as much as possible and those areas having scant growth are filled up by planting. Ordinarily, the planting or seeding is done after and not before cutting.

The various methods of clear cutting are:

1. Clear cutting the whole stand.
2. Clear cutting in strips.
3. Clear cutting in patches.

1. Clear cutting the whole stand: This is the method which will be used in this country and consists in cutting an area clear and restocking it artificially. This method is to be used when the area is a restricted one or comprises a large stand of mature timber requiring several years to cut.

2. Clear cutting in strips: Consists in removing a stand by a series of clearings in narrow strips. After cutting a strip it is planted, and after being fairly established the next strip is cut. Thus, no large clearings are made and the young growth is offered protection by the neighboring trees.

3. Clear cutting in patches: Small clearings, regardless of size or shape, are cut in the stand and restocked artificially by this method. From time to time, the clearings are enlarged by strips surrounding these patches and then restocked by planting, continuing with this process until the entire tract is cleared. This is a European method and one which will not be used very much in this country. However, oftentimes this principle is used in combination with the other systems mentioned.

It is often advisable and essential, especially where natural reproduction is to be depended upon, to leave a few scattering seed trees.

Coppice System.

A stand is usually cut clear and applies to species which sprout vigorously after cutting. Reproduction takes place by sprouts from the stumps.

The trees which are most commonly adapted to such a system are: Willow, eucalyptus, maple, birch, ash, chestnut, redwood, basswood, locust, oak, and other hardwoods.

The system is very simple and inexpensive since no skill is required in choosing trees for cutting and reproduction takes place as a matter of course, abundantly and immediately after cutting.

The cultivation of willow is a good example of coppice, and may be handled in a very short rotation.*

BY PRODUCTS.

There is a large amount of waste in the conversion of timber into lumber, ties, and so on. In fact, it has been estimated, approximately, that only 50 per cent of a tree ever goes into merchantable form under present lumbering methods. Manufacturers as a rule try to save and utilize all of a tree that is possible by using fine saws and the most modern improved machinery, but even with such methods, a large amount of waste must necessarily arise. To use this waste profitably, is one of the most important problems now before the manufacturer. Undoubtedly, some day, nearly all the waste which cannot be worked into some form or other will be utilized by chemical means. Those most impertant now are the destructive and liquid distillation and the pulp industry.

In the Lake States, where in past years so much waste has been produced, numerous experiments have been made with respect to the manufacture of turpentine from Norway pine stumps. The results of these experiments have been fairly successful and improvements are continually being made.

In the distillation of hard woods small trees, limbwood and tops are used. Thus a great deal of the so-called "slashings" or "brush," which are always a fire menace after logging operations, are done away with.

The products from hardwood distillation in their order of importance are: charcoal, wood alcohol, gray and brown acetate of lime, tar and oil. The wood alcohol and acetate are by-products that can be saved only by the use of the most improved processes of distillation—that is, the using of air-tight retorts and the carbonization of the wood (charcoal) by indirect application of heat.

Charcoal, however, can be obtained by almost any carbonization process. At present, in Michigan, most of the wood is carbonized in kilns, in which it is placed and fired directly. With these conditions 4 to 6 gallons of wood alcohol per cord and a small percentage of acetate are saved.

In the distillation of pine two processes are in use, the destructive and steam distillation. The former is similar to that of hardwood distillation in that the wood is carbonized and in this way drives off the oils. The chief products thus obtained are turpentine, tar, charcoal and oils.

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*"Principles of Handling Woodlots," by Henry Solon Graves, is recommended to those desiring a more detailed discussion of Forestry. It was consulted freely in preparing the foregoing.

Steam distillation consists in chipping the wood and then boiling it with live steam. The products contained in the wood are distilled with the wood and come off readily, while the wood itself is not carbonized as in the other process, but is left as a pulp and is used now chiefly for fuel. In the region where Norway stumps are being used, this residue is being experimented upon for its paper-making qualities. So far the results have been fairly satisfactory, and if successful from a commercial standpoint will mean one more important utility for waste.

The products obtained by this method are turpentine and heavy oils. Several of the latter have no commercial value as yet, but the turpentine when refined is considered about equal to gum turpentine and superior in some respects to the turpentine obtained by the destructive distillation of pine as carried on in the South.

Operations at present are confined chiefly to the long-leaf pine belt where the pine gum is obtained, in the states of Alabama, Florida, Georgia, and North and South Carolina.

However, besides the operations that are being carried on in the Lake States on Norway pine stumps, experiments are also being made by the Forest Service with Douglas fir on the Pacific coast. This is of great importance to this region for it will mean not only the utilization of a great amount of waste material, but will provide a market for an entirely new product.

In past years, sawdust has been produced in immense quantities; in fact it is being produced now on the Pacific coast and apparently has no use. Several manufacturers use a small percentage for fuel and in the East these huge piles are being bought by ice companies for ice-packing purposes.

Undoubtedly in the near future, a great deal of this waste will be used in the manufacture of a wrapping or other paper, since the use for ice packing is fast disappearing. Modern ice companies are manufacturing ice artificially as the market may demand and the harvesting, storing and shipping of ice in sawdust as is still being done in many of the northern states is unnecessary.

The above mentioned are only a few of the waste uses and there still is a vast field for improvement. Slab and bark waste, species which can be used for tanning and the waste in lumbering, cutting trees (leaving high stumps), must also be considered.

WOOD PRESERVATION.

In recent years, this question has become an important one to wood users in the country. Especially is it of importance to those using timber for telephone and telegraph poles, fence posts, railroad ties or for other purposes where the timber must come in close contact with the soil. Timber of desired species for these purposes is getting more scarce and rising in value every year, thus necessitating some means of prolonging the life of wood. The different wood using companies are realizing this fact, and some are carrying on experiments for this purpose. Their experiments up to date consist in applying preservatives.

It is a well known fact that thoroughly air dried timber will not decay, because it does not contain sufficient moisture to support the growth of fungi and wood boring insects which are the causes of decay. On the other hand, if the timber is placed in the ground, that portion of it in close contact with the soil will absorb moisture until conditions favorable to decay are restored. To prevent this decay in timber so exposed to moist air and soil, the wood substance, which is the food for fungi growth, etc., must be made immune from such attack. This is accomplished by injecting antiseptics. The value of such a treatment consists in providing an outer protective covering around the untreated interior wood and should penetrate deep enough to prevent exposure.

By the application of preservative treatment, many species of timber not naturally durable and formerly not considered suitable for poles may be used for this purpose.

Treatment.

Creosote seems to be the preservative best adapted to treating woods and this treatment is based largely on the pressure method, where 8 to 12 pounds or more of creosote to the cubic foot of timber is used.

Experiments conducted by the Forest Service show that best results are obtained by first carefully seasoning the timber. Seasoning, therefore, is an important factor and the rate of seasoning will depend largely on the season of the year in which the timber is cut. If seasoned too rapidly the timber is apt to check, whereas timber seasoned slowly and evenly forms numerous small checks, which close again when absorbing the moisture. Checks, therefore, decrease the strength of timber and hasten the rate of decay.

Serious damage from large checks may be avoided by the use of "S" irons.

There are two methods of treatment as applied in preserving poles, these are:

1. The brush method.
2. The open tank method.

1. The brush method consists in applying the preservatives to the surface of the wood with a brush. This form of treatment gives fairly good results but still does not present a complete solution to timber preservation. This method costs but little, in that it needs no expensive apparatus to operate; and again, but little preservative is required.

In the experiments carried on by the U. S. Forest Service, a penetration of from one eighth to one fourth inch was obtained in seasoned timber. In all cases the preservative was applied hot.

Directions for applying preservatives: Fill all season checks with the preservative to guard against decay.

Only poles which are thoroughly seasoned should be treated.

The butt only is treated since it is the portion most subject to decay.

Do not apply the preservative to poles which are wet or damp.

Better results are usually obtained by heating the preservative before applying.

2. The open tank method consists in subjecting the timber to successive baths of hot and cold preservatives. This method like the brush method has the advantage that the preservative may be applied to the butt of the pole only. This avoids the expense of applying it to the portion above ground, which in many cases is durable without treatment.

The three general methods of applying the preservative are:

1. After the timber has been held in the hot preservative for the required length of time, the heating may cease and then allowed to cool.

2. The timber may be transferred from the hot liquid to another tank containing cooler preservative.

3. The preservative may be changed, the hot being drawn off and the cold run into the treating tank.

The open tank method is unlike the brush method in that it is an impregnation process and not a mere coating of the surface with preservatives. This absorption usually takes place during the cooling process, while a hot bath prepares the wood for treatment. The drier the wood the shorter the period of hot bath needed.

These tests were applied to several species of timber, chief among them being chestnut, southern white cedar, western red cedar, lodgepole and loblolly pine. In one instance an untreated pole of southern white cedar showed decay at the end of four years while a creosoted loblolly pine showed no signs after 18 years of service.

There are various preservatives now in use and for general information, a few will be mentioned. They are, tank treatments with—

1. Creosote.
2. Creosote and zinc chloride.
3. Zinc chloride.
4. Crude petroleum.

The Forest Service found after carefully testing with them all that creosote was best. They also came to the following conclusions:

Seasoning of poles reduces the weight 16 to 30 per cent.

Poles cut in the spring and summer lose weight most rapidly.

Of the two methods, brush and open-tank, the latter is best and more thorough, since it prolongs the life of timber for a longer period than the brush method. However, the brush method is inexpensive and with a good preservative may be expected to prolong the life of a pole two or three years.

Finally, it pays to treat timber. There are good grounds for this last statement and for example we will mention a condition existing in Michigan. Here, the railroad companies have been using cedar ties for many years. The cedar supply is now nearly exhausted and for this reason the railroads are buying all the available hard wood ties and treating them with creosote.

A more detailed discussion on wood preservation may be obtained from Forest Service Bulletins numbers 78 and 84.

The question of tie preservation is becoming more and more important as the demand for tie material increases. So long as plenty of white oak ties could be secured the necessity for tie preservation was not felt, but with the constantly increasing use of pine and other woods less resistant to decay, it has become a problem worthy of consideration. The railroad companies have faced the problem by establishing treating plants, and by laying experimental tracks with treated ties to determine the quality of the several preservatives under different conditions.

CHAPTER VII.

A STUDY OF STREET AND HIGHWAY PLANTING.*

(Progress Report.)

At first thought it might seem that the question of "Street and Highway Planting" might be somewhat removed from the general work of the Forestry Department. But that this is not the general opinion of the public, can easily be shown from the great number of queries along this line which are constantly coming into this office. These queries, of course, cover much ground and very often the material needed for a reasonable answer is not at hand or well organized.

Because necessity has demanded that something be done and because popular opinion has turned to this office for help, this study has been undertaken. It has been the first object of the study to gather material throughout the state, and so far the Bay region, Santa Clara Valley and southern California have been studied. This material, of course, has come from many different sources. Many men and women have contributed the fruit of years of work along private and civic lines that we may have the data for general distribution. To them, individually and collectively, we give our heartiest thanks.

Certain fundamentals were always investigated. For each town a species list was kept, in which were noted the trees which commonly occurred in the parkings and any others which in any way appeared as possible candidates or which might have been recommended, whether wisely or not, to our judgment. With each list general notes were taken which contained items concerning their habit of growth, rate of growth, their resistance to drought or alkali, their need of care, peculiar phases of pruning or culture, their needs on the average street and many others which might concern all or particular species of trees. Many of these have been contributed by individuals who have made a study of the trees in their locality and this has been noted, as these matters do not always hold in all vicinities though they may be quite near each other.

Where it has been possible, these facts have been reinforced with photographs with varying success, as some things appear fairly well in a gray and white reproduction which, in reality, are not attractive in any degree.

To some extent, lists of nursery people have been kept from the various towns; these will be filed in the office and may be of help in some cases though the nursery situation in most places is not a serious one.

In each town all these features have been noted, and where it was possible, the problem has been studied from the viewpoint of the officials in charge. In cities where this work is well in hand, the matter has been entered into at considerable length and in those places where it is as yet in its infancy, the general conditions and problems have been studied as they would confront the official undertaking the work. In some cases, as a stranger, some features have been noted not generally thought of but in most cases it has been deemed more discreet to offer the judgment of those who have actually accomplished something, rather than any arbitrary statements from a superficial visit. And by a superficial visit is meant not a light study of the problem, for it has been undertaken in all seriousness and earnestness, but less mature conclusions than could be offered by one who has been on the ground for years and seen the development. And from all our study has come one chief aim (and this, it is hoped, may be a chief result of the study), and that is, consideration and adoption of civic control of municipal planting.

Throughout southern California there is a growing knowledge of the matter of municipal control of street planting. Those cities which have tried the system have shown that great things can be accomplished. Of course the returns of these efforts cannot be directly measured in dollars and cents as the average citizen would perhaps desire, but their return is just as certain though perhaps less noticeable.

At Riverside, the pioneer city in this work, there is a real civic pride in what has been accomplished and justly so. The management at Riverside has been far-sighted enough to improve the parkings uniformly and not pay undue attention to the fine boulevards and wealthy residence streets to the exclusion of the more modest places. With what result? Simply this—that one can go street after street and see almost no cases of unimproved property. And if one should question some householder any objection would be the exception which would prove the generalization, that most of Riverside is pleased with what has been done, and more than proud of its position among the leaders. For, of course, Riverside is not alone. Redlands, Pasadena, Corona, Alhambra, and many other towns have profited by the experience of their neighbor and have gone and done likewise.

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*Final results will be published in bulletin form when the study is completed.

And in those cities which have not entire control of the trees, there was never a lack of information or interest in the subject. In some places the problem is a serious one and one which cannot be undertaken lightly. The realization of this fact is proof that these cities have considered the matter in the right spirit and are going to do the best that is possible when they begin their work.

Riverside, which has been doing systematic planting for many years, both under individual and community effort and in later years under city control, has perhaps the greatest number of trees planted. Pasadena follows closely with many fine plantings. Redlands, which took up municipal control but a few years ago, has made a fine beginning in the work and can boast considerable progress both in new plantings and the rejuvenating of the old plantings fallen into decay. At Santa Barbara there is a lively interest in the matter but as yet the general public spirit is unwilling to give up its individual power into the hands of any board. Certain steps have been taken which give the Commissioners negative powers which are more than useful. At Los Angeles there is no particularly vigorous ordinance and no very rigid enforcement of those existing. As to systematic planting—there is no work done by the city but considerable done by real estate firms. This brings about unfortunate results in many cases, as the selection of species, methods of planting, etc., are not always conducive to the best results. This matter is being pushed, however, both by some of the city officials and enterprising private citizens and many of these hope soon to overcome popular prejudice and gain a desirable ordinance. In San Diego, matters are in a very unfortunate state. Owing to soil conditions and other matters, it has been demonstrated that adequate and sufficient planting would mean a matter of considerable expense to the individual if assessments were made to the property holders. No satisfactory solution of the matter has as yet been worked out.

It should be noted at this point that both Los Angeles and San Diego counties are doing considerable and excellent work along the highways and roads of the county.

As these cities have been visited data has been gathered concerning all the species of trees found growing there which by any chance ever occur in any of the parking spaces. With this data, the opinions of various nurserymen, city officials, horticulturists, and other interested parties have been gathered concerning their personal opinions of each tree. Of course, there is considerable opinion concerning all the points. However, it is our hope to present this data in such a form that intending planters will have tabulated for them opinions of men who have done things. Then by a study of the existing conditions in their own locality and a comparison with those of authority, they may judge whether such a dictum shall hold for them or no.

Also, we have gathered together such information as we could concerning special features of planting or care after planting which have been worked out by officials in different parts of the south. For these we have to thank many interested people who have given freely of their time and of their supply of results to aid this work. To name them all would be tedious to the reader, but they will be certain that their enthusiasm and unselfishness is rewarded in the progress of those around them.

Aside from the work which has been done there will be included a series of suggestions gathered from the experience of Eastern cities. As these conditions are not our conditions, these suggestions are not recommendations, but are merely ideas submitted for consideration. As to whether there is need for them or whether they are worthy of consideration—that is a matter which every municipality must put into competent hands. Some matters which are of prime importance in some localities, sink out of notice in others. This matter of careful and intelligent consideration of local conditions cannot be too strongly urged or too often reiterated. Perhaps in this one factor will lie the entire success or failure of the work done in any one place.

With the eastern material will be some of the legislative acts which have been passed both in the states and in the various cities. In contrast to these we have gathered some of the city ordinances found among the cities visited. Several of the ordinances in use are very good and have proven most satisfactory, while others are indicative of the incomplete state which is to be found in those cities.

In all of the cities visited there was a cordial reception of the idea of a systematizing and collecting of practical data and in each place a real effort was made to show what had been most successful. In addition to the study of the actual planting and caring for the trees, there have been found other short cuts such as municipal nurseries and municipal woodyards. These both have been tried with varying success. The former finds naturally considerable competition and opposition and the latter, so far as discovered, has proven uniformly more popular.

Of these matters more will be said later. And of these matters and all others reported, it is hoped that it will always be remembered that the information offered has been gathered from many different sources. Much of it has been demonstrated and proven whether good or bad; considerable is open for discussion; and much more which is merely tentative. This subject is a growing one and like all others its first years are beset by many difficulties and dangers. It is hoped by this collection of material that some of these dangers may be avoided in the future; that any tendencies which may mature disastrously may be noticed now and checked in their incipiency; that a more common fund of information may be supplied to all interested parties and that a more intimate relation may be built up among those whose endeavors are related.

It is to be hoped that whatever the strain put upon personal feelings in the working out of these "more or less esthetic" phases of municipal life, that those, whose best judgment is in reality the best, will exercise all of their powers to build up a sane public opinion concerning these matters and with a patient effort through a varying length of time build up a spirit which will fruit in civic pride and desire for civic beauty. Southern California has this spirit; do what you can to help it on in your neighborhood and do not hesitate, but push on to the ideal.

CHAPTER VIII.

CONTRIBUTED PAPERS.

Forestry Subjects Discussed by Members of Clubs and Associations.

Such genuine interest has been evinced by the members of various Women's Clubs throughout the state that an opportunity was given them to express their views, through the medium of this report, upon subjects relating to forestry in which the particular person or branch of the club was interested.

A similar opportunity was given to the various associations organized in this state for purposes of forest protection, or for furthering the interests of forestry.

I take pleasure in presenting to the reader the following articles which have been so kindly prepared for this report. I also desire to thank those who contributed the articles, and for their interest and coöperation.

HISTORY AND ACHIEVEMENTS OF THE STOCKMEN'S PROTECTIVE ASSOCIATION.

By JOHN J. CALLAGHAN, Secretary.

Early Local History.

Organized efforts to better the conditions of any portion of the populace produce missionaries who aim to spread their tenets to all whom their efforts may reach. While the notes that follow may, in a sense, be a reflection of personal views, it is my hope that they may in some measure assist others working along similar lines.

We will concern ourselves with that section of the Coast Range lying between Mount Diablo in Contra Costa County and Mount Oso in Stanislaus County, and bounded on the west by the Bay of San Francisco and on the east by the San Joaquin Valley. Fully one half of this district has been devoted to the raising of live stock from pioneer times. Until the advent of the railroads, the occurrence of range fires was very infrequent, although forage had accumulated after favorable seasons. With the great increase of population in the bay counties in recent years and the advent of the care-free hunter from the nearby towns, the menace became intolerable and many range men thought to abandon an uncertain means of livelihood.

A denuded range, with timber, cordwood, fences, dwellings, and forage swept away in a few hours time, will not in this section of the State produce under normal conditions, an average blanket of grasses for fully three years—certainly no profitable investment. Some few years ago during the summer nights, the residents of the valleys and towns could frequently view long lines of fires sweeping over the ranges, like battle scenes; beautiful panoramas, but as I will later demonstrate, injurious alike to them and the range owners. Lacking organization, the ranchman would wait until a wall of fire bore down on his holdings and then would make spasmodic efforts to check it's course, often without avail.

Local Stockmen Organize.

On May 15, 1904, a number of stockmen from Stockton, Pleasanton, Midway, Tracy, and Livermore met at the latter city and organized the "Stockmen's Protective Association," as its by-laws soon after adopted very aptly state, "*to promote the stock and range interests of its members, especially for protection against range fires.*" Although members have been assessed but one dollar a year, the association to-day represents over 250,000 acres of land in Alameda and San Joaquin counties and an investment of fully $3,000,000. Officers have since been elected annually and competent committees have achieved splendid results in many measures undertaken.

A spirit of coöperation within the ranks of members boded well for the young organization. The poor homesteader and large landowner have worked in harmony for a common cause, and, I make no idle boast in saying the personal differences in other matters have not entered here. They are builders looking for definite results.

The Policy of the Association.

The association has from its founding until the present time positively prohibited hunting, camping and trespassing on the lands of its members during the dry season. A uniform form of notice is posted, and, in places has been translated to a foreign tongue. The committees on by-laws and legislation have always secured the assistance and coöperation of the State Forester and the various county boards of supervisors with whom they have had to deal. Committees appointed to investigate fires have, by vigorous efforts, collected many thousands of dollars in damages for members without resort to legal actions.

Local Coöperation.

It is at all times unpleasant to tell your banker, your grocer or other business associate that he can not hunt or camp on your range, though he be most careful in the use of fire or firearms, yet, to maintain a necessary policy, no exception can be made; but, on the other hand, the banker should realize that the rangemen must prosper that he may pay his loans and increase his deposits. So, too, that grocer can not do otherwise than assist that hillsman so that his credit may be good at the store.

As the business community is mutually dependent, therefore, assistance should be given the rangeman to improve the conditions of his business. We increase the volume of trade and aid the entire community by such unity of action and mutual aid.

The clubs established in the hill sections by business and professional men of neighboring cities post notices that their guests may not trespass on our ranges. In line with its policy to promote local industries, the Livermore *Herald*, edited by Arthur L. Henry, has given our work such publicity that from that source alone the local public generally has been brought to a realization of the difficulties that beset us.

Fires and Insurance.

Work directed in turn by State Foresters Allen, Lull, and Homans, has reduced range fires locally to a minimum. All parties recommended by the association in Alameda, San Joaquin, and Stanislaus counties, have been appointed State firewardens by these officials. Blasting operations have been supervised and burning permits granted.

Though our members have secured thousands of dollars in settlements of damages for fires leaving the railroad right of way, we find it far more expedient to compel railway corporations to burn their right of way than to await the outcome of controversies with claim agents.

As a result of the rigid patrol, backed by State and county and the good will shown by citizens generally, some standard fire insurance companies write policies on grazing lands in this section. With the protection afforded, they rate the risk a safe one and a good investment, and fully 75,000 acres of land are now insured.

Mounted Patrols.

Five mounted patrolmen cover this district at the present time, reporting regularly to the county firewardens and the State Forester. The men were recommended for appointment as county and State firewardens by the association, by ballot of members.

Realizing that the closing of our ranges resulted in the propagation of deer and valley quail, the State Fish and Game Commission has, as well, appointed them deputy fish and game wardens. These men report daily at certain designated stations.

Legislative Measures.

Committees have approached the boards of supervisors of Alameda and San Joaquin counties, petitioning for appropriations for a system of fire patrols. The demands have been made from an economic point of view and coming from a large body of taxpayers, the officials have realized that such appropriations were good investments of public money. The necessary grants of funds have been made, thousands of dollars' worth of assessable property has been saved from destruction and live stock has remained in the counties interested, to be again assessed and add to the volume of trade.

Coöperative Measures.

Some days since, President John McGlinchy of the association received from the Oakland Chamber of Commerce a tender of any services that could be given and a request for the association to reciprocate. I can not impress too strongly the value of unity of action.

I believe that associations of range owners should be instituted throughout the State. Each unit could be a county or two. Local and topographic conditions would define the area that might be covered, and yet, not prevent concerted and effective work. Such associations could federate in due course.

I would strongly urge interested communities to coöperate with the State Forester's office in order that some uniform scheme of statewide organization may be effected, as well as with the various county officials. Such a scheme could only result in harmonious action in accord with conservative legal procedure. Where county revenues are insufficient for this purpose the State Forester should urge the necessary legislative appropriations.

In Conclusion.

While there are 27,000,000 acres of Federal lands in California, the lands under State control are equally extensive. The industry that produces the meat products required by our people should, for the well-being of the commonwealth, be better organized along these lines. While some good is being done, we lag far behind other elements of the people. Legislators and thoughtful citizens who would deal with the conservation of water and forest should likewise, as trustees for the generations that follow us, safeguard our highly valued brush and meadow lands for their peculiar uses.

TRI-COUNTIES REFORESTATION COMMITTEE.

San Bernardino, Riverside and Orange Counties, California.

By FRANCIS J. CUTTLE, Chairman.

This committee is composed of twelve representative men from each of the counties of San Bernardino, Riverside, and Orange. It was permanently organized in January, 1907.

The purposes of the organization are as follows: "To diminish the winter and spring run-off and increase the summer flow of water from the San Bernardino watershed—

First—By securing to the Federal Government the ownership of all lands within the outside boundaries of the San Bernardino Forest Reserve.

Second—By preventing the further destruction of timber and brush within the said reserve.

Third—By reforesting all denuded areas.

Fourth—By afforesting, where practicable, all areas not now covered with sufficient timber to conserve to the best advantage the precipitation falling on the said reserve."

The organization is the outgrowth of a movement among the chambers of commerce of the three counties above mentioned to prevent the destruction, by fire, of the chaparral and other growth on the watershed from which these counties secure water for domestic use and irrigation. Before the permanent organization was effected, a committee had been appointed by the Riverside Chamber of Commerce to secure coöperation between the water users and the Federal Government for the protection of the watershed from fire. Through this committee, since its organization, the people who secure water from this source of supply have been and are now in constant touch with the Federal and State authorities who have charge of this watershed. During the past five years nearly $50,000 has been expended in the construction of fire lanes and trails for the purpose of enabling the forest rangers and auxiliary forces to patrol the watershed to prevent forest fires or extinguish them in their incipiency. The expense of doing this work has been largely paid from the Federal and State treasuries, although the committee has raised some funds toward this work and at the present time is paying the salaries of two extra forest rangers to secure better patrol of this watershed during the dry season. Only one disastrous fire has occurred during the past five years, and fortunately that was on a portion of the watershed from which the least amount of water is secured for domestic and irrigation purposes.

Committeemen from each county are selected to serve one year or until their successors are elected. Meetings were originally held four times each year, but during the past year this has been changed so that three meetings are now held each year, one in each of the counties having representation on the general committee.

An auxiliary organization, known as the Water Conservation Association, has also been perfected through the work of this organization. It is incorporated under the laws of the State of California and has the power to purchase real estate and carry on general business of a water company. Since its incorporation this association has purchased about 600 acres of land, or rather, gravel and boulders, and has secured the withdrawal, by the Federal Government, of about 1,100 acres more in the gravel wash bed of the Santa Ana River, immediately outside of the National Forest, where the fire lanes and trails above referred to were constructed. These lands lie at the base of the San Bernardino Mountains. On this 1,800 acres of land a very complete system of open ditches has been constructed for the purpose of distributing storm water during the season of run-off which occurs in this locality from December to April first. These lands are located from four to five miles due easterly from the San Bernardino artesian basin and from 400 to 500 feet above the basin. The sinking of water on this débris cone has been carried on for the past six or seven years, although only on a large scale for the past two or three years, during which time about 10,000 inches of water is sunk each year for probably a hundred days. This work has been carried on long enough to bring about very definite and beneficial results in augmenting and sustaining the flow of water from the streams having their rise in the San Bernardino artesian basin, and also from artesian wells. During the irrigation season of 1911 two companies having their source of supply in the San Bernardino artesian basin secured approximately 1,000 inches more gravity flow than prior to the sinking of this water on the débris cone, and that, notwithstanding the fact that the rainfall had been decreasing for four or five years preceding the summer of 1911. The stream flow, as well as the artesian flow from the easterly portion of the San Bernardino artesian basin, has been remarkably good for the season of 1912, although in the northwesterly portion the water has been very low, indicating that there may be some underground barrier between the easterly and westerly portion of the artesian basin preventing the westerly portion from receiving benefit from the spreading of storm water on the débris cone on the easterly portion. This, of course, is only a supposition. This project is now being thoroughly investigated by the Federal Government at the request and expense of the State Conservation Commission, to ascertain definitely and authoritatively just what benefit is being derived from the spreading of this storm water. Practically, the people who are carrying on this work are thoroughly satisfied with the results. These people are a unit in their desire to have better protection from fire on the watershed from which they secure their supplies.

Attempts have been made at reforesting and afforesting areas on the south slope of the San Bernardino Mountains, but so far without any marked success. Indications are that very little large timber has ever grown on the south slope of the San Bernardino Mountains, it being covered with a dense growth of chaparral. Investigations are also being carried on to ascertain the amount of run-off on that portion that was burned over during the immediate future years. This will be compared with the run-off after the watershed has been naturally covered by a growth of chaparral, such as existed before the fire. This, of course, will take a series of years to determine whether or not the chaparral prevents the rapid run-off of precipitation at the time it falls, and if so, to what extent, but it is believed that the expense of carrying on these experiments may give some definite information on the subject that will justify the experiment.

In closing, it might not be out of place to mention that since the great fire of 1911, which burned over approximately 12,800 acres, contracts have been entered into between the Forest Service and water companies and other organizations in the neighborhood, whereby these organizations maintain supplies and furnish, on an hour's notice, from 25 to 50 men each to fight fires in case of emergency. During the past year a portion of these emergency forces have several times been called upon. They have responded with such promptness and good effect that several fires which might have grown to disastrous proportions have been put out immediately after starting. Auto trucks are used to take these men and supplies to the scene of action and the plan seems to enable the Forest Service to have at its command reliable working forces almost as promptly as the chief of a fire department in a city can summon the firemen to the scene of the conflagration.

CLUB WOMEN AND FORESTRY.

By Mrs. Foster Elliot,

State Chairman of Forestry, California Federation of Women's Clubs.

When first beginning the study of forestry in connection with Club work, one is fairly overwhelmed with the immensity of the subject, and feels perchance a touch of reproach at one's temerity at even approaching this great line of work.

This feeling soon passes away, however, and the more one studies into this great question, the more interested one becomes, and believes that small endeavors from each section, united in one great activity, give untold help to the whole Forestry movement.

Surely this great movement for forest protection is one of the most important of the problems before the American people to-day, and our future welfare depends upon its working out. As women are vitally interested in all questions that affect the home, they fully realize "that almost every industry is controlled by forest preservation; useful, ornamental and industrial arts depend upon the output of the forest. In this line of work, woman proves she can reach a result as quickly by reason as by intuition, and her influence is felt everywhere in this movement in civics and forestry."

The Conservation Department has become one of the most important in our great federation. At first it was called "The Forestry Committee," being organized to help along the forestry work, and for some years labored along that one line. Later, the preservation of bird life entered into the place, because of its close relationship to forestry. We have a saying "No birds, No Forests; no Forests, no Birds." Again, later, at the suggestion of the Woman's National Rivers and Harbors Congress, a waterways department was added, and two years ago the name was changed from Forestry Committee to Conservation Department, and, ever since, these two great issues have gone hand in hand.

Perhaps nowhere in the United States is the welfare and prosperity of the people so dependent upon the preservation of the forest cover as here in California. California has always suffered from forest fires. The Indians, sheepherders, settlers, and campers have all been responsible for the forest destruction. Some time ago a series of dry years, accompanied by disastrous mountain fires, brought the people of California to a realizing sense of the danger to the water supply, and consequent check to the growth and development of the country, unless proper means were taken to stamp out the recurrence of mountain fires. For many years an active educational campaign in the interest of conservation has been carried on.

In this great work the club women of California have done their share. While many live in cities, still more live in small towns, or on ranches, but wherever they are, they know and believe that wood is one of the prime necessities of man and "We must save the forests."

The club women of California count no small part of their work to have been along the lines of education; perhaps we will never know just how far-reaching it has been. The successive state and district chairmen have given freely of their time and talents, have addressed clubs and schools, written thousands of letters, distributed literature, written articles for the newspapers and in short have done all in their power to stimulate interest in forest preservation and water conservation.

This last year much instructive work has been done through the medium of talks illustrated by lantern slides loaned by the United States Forest Service. These slides have done untold good, especially among the school children, the pictures showing most widely the economical value of forests, their protection, esthetic and sanitary influences, waste and destruction in the forests, and what is being done to remedy these conditions. These slides were shown at the Whittier State School, and the close attention paid, makes us hope that the girls and boys will receive lasting benefit. Everywhere the emphasis has been laid on the need for fire protection, and during the coming year the slogan will be "The Necessity for Fire Control."

Through the strenuous efforts of the Women's Clubs, in many sections, valuable trees have been saved from destruction; in others, planting of roadside and school grounds has been carried forward and encouraged—parks planted to trees and maintained.

Some clubs have urged their supervisors to appoint a county board of forestry, who shall have the right to supervise the planting of trees along the public highways. In Los Angeles County such a board has been created, with two of its members women, and already some forty miles of roads have been planted to trees and palms. One district has accomplished legislative work of permanent nature, for the following bill, drafted by one of its members, passed the state legislature and became a law.

"March the seventh of each year, being the anniversary of the birthday of Luther Burbank, is hereby set apart and designated Bird and Arbor Day. All public schools and educational institutions are directed to observe Bird and Arbor Day, not as a holiday, but by suitable exercises having for their object instruction as to the economic value of birds and trees, and the promotion of a spirit of protection towards them."

For more than nine years the people of California, particularly the 500 women of the California Club, worked to interest the Government in protecting the Big Trees from destruction. At last they were successful, for by an act of congress, passed February 18, 1909, a way was found to save for all time one of the most famous groves of trees in the world—the Calaveras Big Grove of California. In the years 1910–11 in addition to all the educational work, study and tree planting being done by the clubs, general forestry work was accomplished both for our own state and the eastern states. Thousands of letters were sent from California to our representatives in congress asking them to vote for the Weeks bill which would establish national forests in the White Mountains and Southern Appalachians for the protection of navigable streams. On the other hand, at our appeal the eastern club women sent thousands of letters to our representatives asking them to revoke the grant of the Hetch Hetchy Valley to San Francisco, while here at home we were not backward in our efforts to save this beautiful valley for the people. We hope and believe our work had some effect, for both of these measures carried. Perhaps nowhere are there more national parks and national monuments than in California, and the Women's Clubs have always listened to all appeals from organizations, and coöperated with them in all measures for the preservation of these National and State playgrounds, not only for to-day but for their great value to the coming generation.

At the Annual Conventions of the California Federations, resolutions have been adopted thus:

At Del Monte, May 1909, against the proposed grant of the water right in the Hetch Hetchy Valley to the city of San Francisco.

At Santa Barbara, May, 1910, in favor of resolution presented by the Women's Clubs of the New England States asking our women to work in favor of the passage of the Weeks bill.

At Paso Robles, May, 1912, for the control of forest fires, and also a resolution in favor of the National Conservation Exposition to be held in Knoxville, Tennessee, in 1913, and the bill before congress to provide for a Government exhibit in the same. At the eleventh biennial General Federation Women's Clubs at San Francisco, June-July, 1912, a protest against any further curtailment of the national conservation fund, and a sufficient appropriation be made to secure our forests against fire.

The club women of the State are also working hard to induce congress to acquire and set apart for a National Park a tract of redwood timber in Humboldt County where the finest redwoods are fast disappearing, and they fear unless quick action is taken these splendid trees will be lost to this and future generations. We feel that what we have done is appreciated. We have received splendid suggestions and practical and valuable assistance from the United States Forest Service, and from the State Board of Forestry, and in return we have done, and will continue to do, all in our power for forestry. State Forester Homans has suggested that the Women's Clubs conduct a publicity campaign against forest fires, and from Washington we are asked "to further the introduction and improvement of courses in forestry in schools in connection with other subjects such as agriculture, nature study and geography." Surely, if we can do real practical work along these lines, we shall feel at the end of the coming year as if we had accomplished much, and had not labored in vain.

As we are so vitally concerned in the future of forestry in the State—knowing that "back of our homes with their ornamentations, lights, heat, and culinary departments lies the forest, back of the very stability of the National Government itself, lies the forest"—we would therefore like to make a few suggestions as to what might be done, not only to protect the forests now standing, but to insure something as well for the coming generation.

We recommend that a sufficient appropriation be made by the State for the acquisition, by purchase, of land for reforestation purposes, for the management and control of same, for the prevention and control of forest fires, for a paid fire fighting force to coöperate with the United States Forest Service; for the purchase of seeds and seedlings for distribution among the farmers of the state in order to encourage tree planting. That the appropriation for printing and binding be sufficient so that the material collected by the State Board of Forestry may be sent to the people, for research work is of little value unless it can be distributed.

Also we believe in a more equitable basis of taxation. Until that end is attained, and the State offers inducements for planting by not urging taxes on timber lands until the timber is ready to cut, we fear there will be very little reforestation by private owners.

We feel sure there is no one woman who has done more for the cause of forestry in California than Mrs. Lovell White, and this article would have little value if there were not some word from her incorporated in it. She sends the following report; we only wish it were longer, but fearing to make it too long she left out the splendid work she has done:

"The biennial meeting of the General Federation of Women's Clubs was held in San Francisco, beginning on June 25th and ending on July 5th. The Conservation Department of General Federation of Women's Clubs includes committees on forestry, waterways, and birds. Other popular features, notably good roads, were presented by the chairman of the department on Thursday, July 1st, when the morning session was given up entirely to the presentation of the subjects above enumerated. The program was unusually fine and a large and enthusiastic audience greeted the speakers from the different states. Both women and men showed a familiarity with their themes, and also a genuine eloquence in dealing with the various phases of the subject.

A conference on forestry attracted a large audience on the afternoon of the same day. The conference was informal, questions were asked, including topics ranging from forest fires to the best manner of disposing of cut brush. The walls of the room were lined with photographic exhibits from Massachusetts, Pennsylvania, and California.

A chairman from every state was appointed to serve on the Conservation Department by the Governing Board of the General Federation of Women's Clubs. The duty of said chairman is to make herself familiar with all the conservation conditions of her state, through the medium of the clubs belonging to the federation of her state.

In this way she can secure information on every point needing exploitation. For the convenience of the state chairman copies of a leaflet containing fifteen questions relating to forestry in general were forwarded to them. These were circulatd throughout the Union. The responses were numerous, showing care and intelligence in the compilation of data. In many instances the state forester had prepared the material.

Many of the states have tree wardens instead of foresters—the duties, however, being similar. The primary principles of forestry are taught in many of the public schools throughout the country. The impression conveyed after reading all the reports sent by the state chairmen is that forestry in the hands of club women is simply of an educational character, confined to lectures before organizations by experts on the subject and to study classes under a leader familiar with the best books written on forestry. The beauty of trees, the poetry and romance of the forest seemed more appealing than questions of practicability.

Few possess state parks planted in native trees. In that respect California shone with splendor—as Redwood Park, consisting of more than 3,800 acres of land, is probably the most extensive and wonderfully wooded state park in America.

The chairman of the forestry committee gave as her part of the morning program on July 1st a description of our parks—including the State Redwood Park—our National Parks, National Forests, and our National Monuments."

In conclusion, we agree with Mrs. White when she says "that women's work in forestry is mainly educational." This work had to be done, however; there is still great need for it, and after all, have we not laid the foundation for the practical work which everywhere is being carried out? We hope and believe the California Federation of Women's Clubs is proving itself an important factor in the cause of forestry. We urge the importance of fire control, and also how necessary it is that what remains of our original forest area, should be administered under the principles of forest science.

FOREST PROTECTION.

By Sarah L. Bowden,

Chairman, Forestry Committee, Out Door Art League of Santa Clara County.

The suppression of forest fires is a matter that every member of the Out Door Art League of Santa Clara County feels of paramount interest and importance; and, either as individuals or as a body, will give any help possible in an educational or legislative campaign for the effective prevention of forest fires.

San José is situated in such close proximity to our beautiful wooded hills and cañons, and to the State Park—only forty miles from the Big Basin—that we feel a special interest in their preservation. Moreover, some of our members are among the most ardent tree lovers in the State; and no more acute pain could come to them than the knowledge of the abuse of camping privileges in our woods.

We are fully aware that under no circumstances is a forest fire of benefit, either from an esthetic or economic point of view. The injury to young timber and yearlings is inestimable, and the burning of dry grass and waste vegetation cannot be a compensation or at all desirable. Timber dealers and lumber companies no longer find it economical to burn over the land from which a sawmill has been fed. Of late years a market has been found for all so-called waste.

The conservation of our forests is now becoming a matter of popular interest. Much is constantly appearing in print regarding it and the educational campaign in that direction grows stronger yearly. We are glad to refute the oft-quoted statement that the Indians found it beneficial to deliberately burn out the undergrowth of the forests at stated seasons. The Indians did have such methods, but they did not conserve their forests; nor was there any need for their doing so, when there was such an abundance of timber and such sparse population. This knowledge is gospel to us of the Out Door Art League. We take every opportunity to disseminate the facts, and to contradict erroneous theories to the contrary.

In the matter of practical work, the Out Door Art League had a representation in Sacramento, and used its influences for the passage of the forestry bill two years ago. Letters were sent by the league to every member of the legislature during its last session, urging the passage of the bill providing for the appointment of a firewarden.

This summer our committee on forestry had an article on the danger of forest fires, with warnings to picnickers and campers, printed in the San José *Mercury;* copies of this were sent to every paper in Santa Clara County, many of which reprinted the article with editorial comment.

In order that forest fires may effectually be prevented there must be a systematic campaign of education inagurated and continued until the importance and necessity of the work shall be made apparent to all. Such work is conservation in its highest and most practical form. It is essentially state work. Hence the Out Door Art League of Santa Clara County favors every well considered measure that will result in the prevention and suppression of forest fires within the State of California and is ready to endorse and support any legislation that will result in protecting and conserving our magnificent forests, the greatest asset of our beautiful California.

NATIVE GROWTH FOR PLANTING IN CALIFORNIA.

By MISS E. PORTER,

Out Door Art League of Santa Clara County.

"My position has been that the woody flora of any particular region is, and must ever be, the one criterion in the determination of our choice of material." (Professor Macbride, University of Iowa.)

The trend of the times is toward the preservation of natural beauty. National, state and city parks make it possible to retain much wild, unspoiled nature, of which we stand in such need. Outside these park areas, it is difficult in the march of civilization, with its manifold industries and occupations, the building of railroads and the making of homes, to preserve natural beauty. But there is the widest desire for it everywhere manifest—among landscape architects, real estate men, public officers, railway officials—and we believe that the more closely nature is studied and her counsels heeded, the less difficult the problem will become.

THE HARMONY OF NATURE.

Nature has covered the architectural foundation—the mountains, cañons and plains—with growing things which are not only in perfect harmony with the structure which they adorn, but with each other. It is possible to destroy the beauty of the landscape, not only by the destruction of this native growth itself, but also by the introduction of foreign growth into its midst, a fact not so widely recognized.

FORESTRY EXPERIMENTS.

In this connection, recent experiments in the Forestry Department are interesting and very encouraging. Where eucalyptus trees have been planted on the lower slopes of the mountains, in southern California, they have not made as satisfactory protection to the watershed as the native chaparral. Even the pines removed from mountain heights to these lower levels do not thrive as well. So it has been decided that in the Forest Reserves, at least for the present, that the manzanita, the buckthorn, the sage, and the wild buckwheat are to remain, clothing the unmarred hillsides with their lovely bloom. It is suggested further, by one writer, that the Government be asked to "reforest" the slopes already denuded, with honey-bearing plants, for the benefit of the beemen. If a useful industry can thus be carried on, at the same time protecting the watershed and preserving characteristic natural beauty, it will be one step toward an ideal civilization.

It is encouraging that the Bureau of Forestry believes it will pay to hold cut-over redwood lands for future crops, which will also aid in preserving the original landscape.

UNNECESSARY PLANTING.

In the making of homes in regions of great natural beauty it would seem desirable to alter the surroundings as little as need be, planting only to restore where nature has been disturbed. But even in summer camps one sees much effort expended in artificial gardening, all out of harmony with the delicate blooms and rugged forest trees. Of course where the home is permanent, and architecture more pretentious, and the need of formal gardening is felt, it is possible to separate the artificial from the natural surroundings, and so prevent incongruity.

It is a pleasure to record here that Mr. F. A. Hihn and Mr. Frank L. Brown in Santa Cruz County, Mrs. Lillian Ferguson in Marin County, Mr. Charles K. Field, and others are helping to restore the characteristic beauty of the redwood region by the planting of these young trees about their homes.

CHARACTERISTIC NATURAL BEAUTY.

Each region has an individual charm produced by its native trees, shrubs and flowers. Even under artificial conditions, by using the native growth for planting, this characteristic beauty is in a great measure preserved. The native elms and maples that shade the streets and highways of New England have their appropriate quiet beauty; the royal palms forming the approach to Cuban haciendas have a tropic splendor in keeping with the landscape; and the moss-draped native oaks that lead to the old plantations of the south have a distinctive beauty that no foreign trees could give.

In Italy eminent men are urging not only the restoration of the classic native growth, but also the "removal of the new and inharmonious." The Italian Government is to restore some of the buildings of ancient Rome and surround them with a magnificent park. Already thousands of young trees have been set out, but only natives of the soil—the laurel and the ilex, the olive and the pine—have been chosen.

Our greatest landscape architects realize the value of characteristic beauty, and the folly of attempting to transform one landscape into another of a totally different kind. Only a few days ago in Denver, William Law Olmsted said (and there is perhaps no higher authority) "we should not try to imitate Eastern landscapes."

The charm of variety is not attained by assembling many kinds of inharmonious trees and shrubs together, but by emphasizing the characteristic growth of each region.

We Californians, a cosmopolitan people, are slowly learning that our architecture and landscape art, as well as mode of dress, must be formed by the natural conditions of the State in which we dwell.

Plants brought from even Arctic regions would in time, no doubt, adapt themselves to new conditions, and grow into harmony with their surroundings, but why should we force nature to repeat her patient processes, when the decoration she has already prepared is so perfect and so beautiful?

TOPOGRAPHY OF CALIFORNIA AND HIGHWAY CONSTRUCTION.

In order to bring the topography of the State clearly before the reader's mind, we quote from the opening chapter of John Muir's "The Mountains of California."

"Go where you may within the bounds of California, mountains are ever in sight, charming and glorifying every landscape. Yet so simple and massive is the topography of the State in general views, that the main central portion displays only one valley, and two chains of mountains which seem almost perfectly regular in trend and height: the Coast Range on the west side and the Sierra Nevada on the east. These two ranges coming together in curves on the north and south inclose a magnificent basin.

"This is the grand central valley of California, the waters of which have only one outlet to the sea through the Golden Gate. But with this general simplicity of features there is great complexity of hidden detail. The Coast Range, rising as a grand green barrier against the ocean, is composed of innumerable forest-crowned spurs, ridges, and rolling hill-waves which inclose a multitude of smaller valleys; some looking out through long, forest-lined vistas to the sea; others, with but few trees, to the central valley; while a thousand others yet smaller are embosomed and concealed in mild, round-browed hills, each with its own climate, soil and productions."

Through this varied and beautiful country the state highway is to pass, and many new county roads are projected or in course of construction. To construct and plant

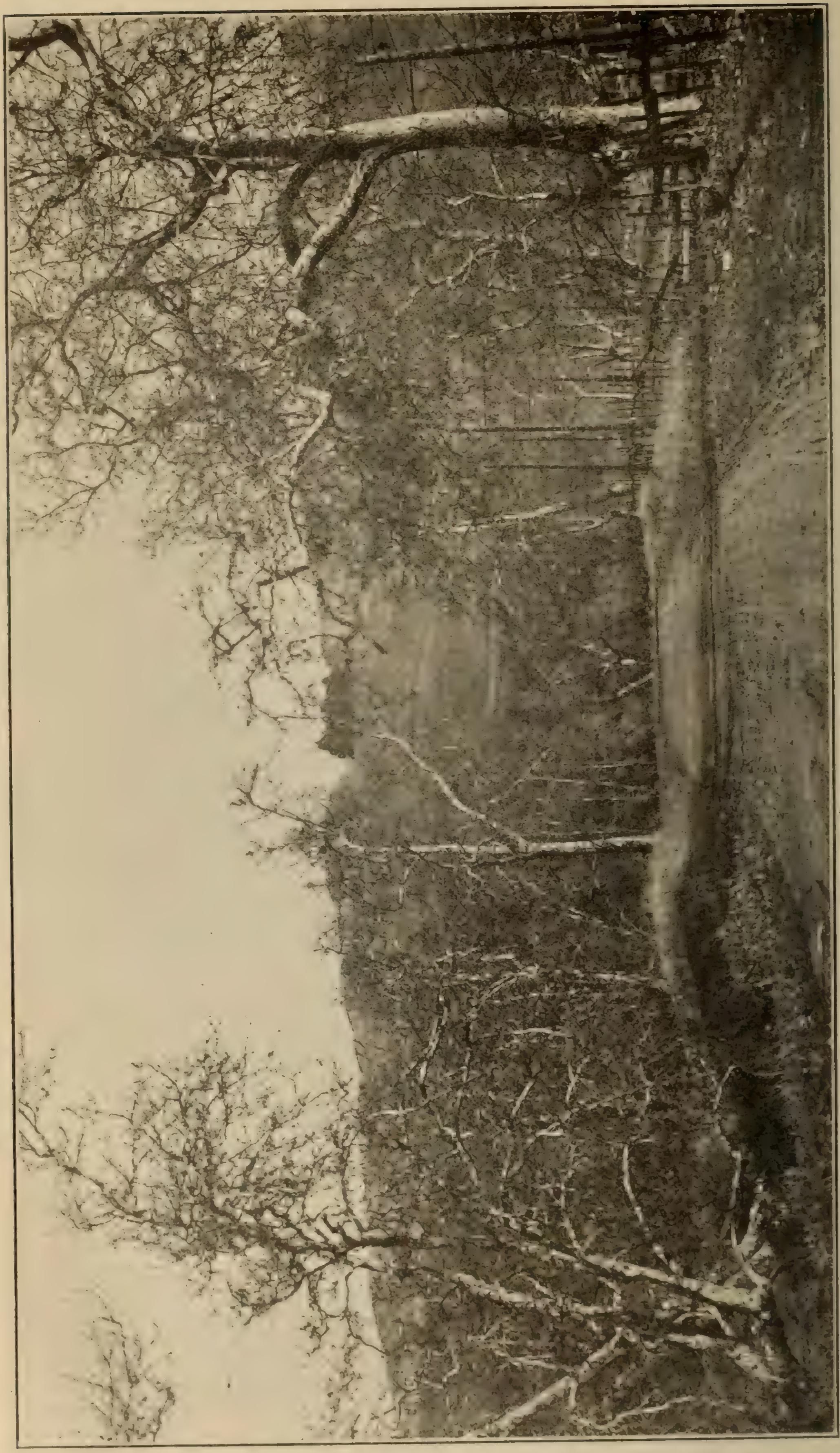

PLATE XI. Native sycamores on Penitencia Creek road, Santa Clara Valley.

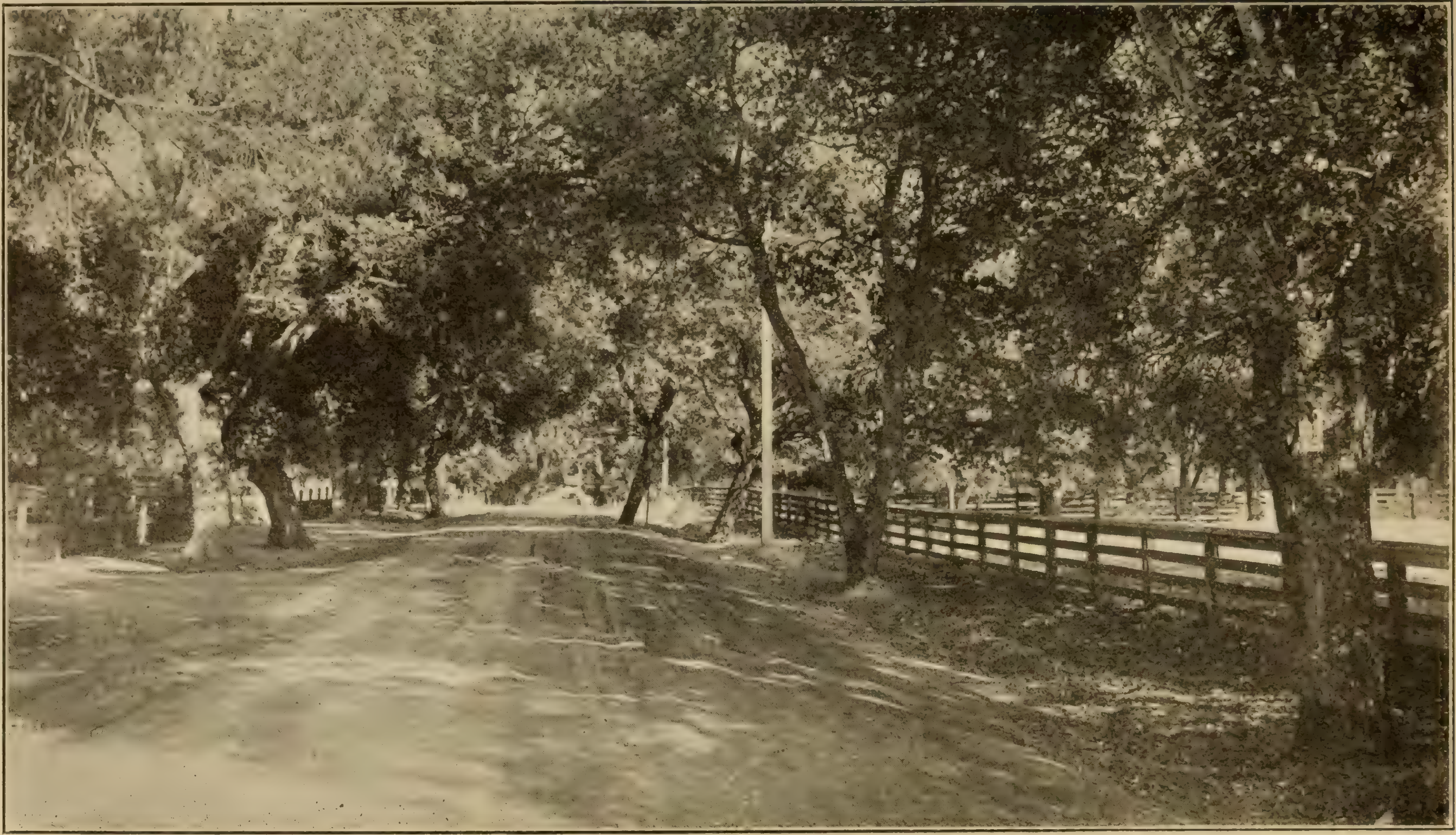

PLATE XII. Native liveoaks on roadway near Palo Alto. Help to further efforts looking toward the preservation of our roadside trees.

these highways, as well as those already made, so that the beauty of the landscape as a whole shall be preserved, is the difficult problem presented.

PLANTING ON MOUNTAIN ROADS.

When the road must penetrate mountain gorges or find its way among the rolling hills, skillful engineering is required to preserve the contour of the land. But in the way of planting only restoration is needed—covering scarred banks with native vines and shrubs which strengthen while they adorn—reforesting with native trees where blackened stumps show that forest giants once stood.

WATERWAYS.

When the highway at lower levels follows where cool alders fringe the stream, or where sycamores define it with their gleaming trunks, where willows bind the banks and make the low-lying country beautiful as the waterway draws near the sea, art and nature counsel "Plant only to restore."

COAST VALLEY ROADS.

When the road winds among the liveoaks of coast valley floors, there seems no question still of introducing foreign growth. What could be more satisfying than such "nature-planted" roadways? And to scatter these trees "whose rounded outlines are repeated in the soft curves of the foothills" along the intervening roadway, linking grove with grove, would seem the logical treatment, if we are to preserve the distinctive charm of the original landscape.

It is true that oaks are comparatively slow growing, but even when no more than shrubs they are very decorative. With proper care the young trees make a surprising growth, and in thirty years a man may stand under a fair sized liveoak of his own planting. But, after all, are we to plant only for ourselves, and give no thought to future generations? It would seem our duty to at least repair the natural loss among our native trees, thus securing the permanent character of the landscape. Besides the esthetic value, there is the historical association and sentiment which are well worth considering.

EXAMPLES OF WRONG PLANTING.

There is no more striking example of unwise planting than parts of the road leading down the San Francisco Peninsula, the old Camino Real which is to be incorporated in the new State highway, where lines of closely planted eucalyptus trees hide and dwarf the low rolling hills beyond. An avenue of eucalyptus trees taken by itself is most impressive and satisfying, with its vista of great trunks and spreading boughs. Taken in connection with the adjoining landscape, and we believe that at least on country roads this is the main point to consider, the effect of the same avenue may be most disastrous.

An avenue of palms stately and beautiful in itself looks out of place in most parts of California. It is making a feeble imitation of the tropics out of a temperate country, often for a purely commercial reason—that is, to please tourists who are even now becoming dissatisfied with this false ideal.

IRREGULAR PLANTING.

Irregular planting of the highway contributes much toward preserving the natural aspect of the country. It helps to prevent the "checkerboard" effect produced by many conventional avenues intersecting each other on a valley floor, when viewed from an adjoining height. Continuous shade is perhaps not so much of a necessity in these days of rapid transit. There are some practical reasons which make a scattered planting very desirable—such as the quicker drying of the road; more easy avoidance of trolley and telephone poles, when the lines must follow the highway, and less injury from shade to some growing crops.

In support of this method of planting we quote from a pamphlet written by G. H. Allen, B. S., and endorsed by the Munson-Whitaker Company, landscape foresters, of New York and Boston. Mr. Allen says, "Along country roads the trees should be planted in an irregular manner, leaving intervals of open. . . . . . Along city streets the trees may be arranged in a more conventional manner, although broken rows are by no means desirable."

A SPECIAL PROBLEM.

The following is one of the problems where the irregular planting of native trees seems the only solution—the planting of a highway which on a valley floor crosses and recrosses a wooded stream, at times following it for a short distance. In such a case, if an attempt is made to plant the highway in a formal manner with exotic trees, the treatment becomes confused and absurd. For either the highway must be broken up into sections by the interruption of the stream, or else the graceful fringe of native trees along the bank is ruined by the regular spacing of foreign trees. By scattering the native oaks, sycamores or willows of the creek bank along the rest of the highway, the harmony of the whole is secured. But, could the highway in the first place have followed the stream, along its entire course, the ideal would have been attained.

NEW RESIDENCE TRACTS.

In laying out residence tracts in wooded regions, curved roads are logical and often employed, even in a level district. The trees are thus more easily avoided, and the beauty of the groves preserved. Little or no planting of the new roads is necessary. Unfortunately examples are to be seen of tracts where straight roads have been driven through the groves of oaks or other native trees, and emphasized by the planting of exotics, all in utter disregard of the original landscape.

CONVENTIONAL AVENUES.

Even when the highway or city street is regularly planted, preference should be given to native trees. The native laurel and big-leaved maple are admirably adapted for conventional avenues. And even the willow or sycamore, though losing in picturesqueness, will with care become more suitable for formal planting.

THE GREAT CENTRAL VALLEY.

In the valleys of the Sacramento and San Joaquin the problem of planting becomes more complex and the ideal more difficult to attain. The treeless stretches of this great valley, with the snow-capped Sierra always in sight as the dominant feature of the landscape, have their own charm. But immediate shade is a necessity in that region of great heat; and there remains only for us to plant in such a way as to mar as little as possible the original beauty of the landscape. Where native trees exist, except in the vicinity of water courses, it is the graceful "weeping oak" that more than any other tree gives distinction to the valley floor. To emphasize this dominant tree, the roble of the Spaniards, more strongly, placing it in groups about homes or irregularly along the highways; and to greatly widen the fringe of native growth with ash, alder and cottonwood along the streams, might be the ideal general treatment for the great valley. For quick shade the oaks could be interspersed with native maples, cottonwoods, and other fast-growing trees. At least let us not thoughtlessly interpose a huge unchanging barrier of alien trees between us and "that wall of light, ineffably fine, and as beautiful as a rainbow, yet firm as adamant."

The gray-foliaged Sabine pine lends a peculiar charm to the hot, dry foothills of the Sierra and other ranges. It should be cherished for its decorative value in the regions where it grows; and the various species of oaks (its associates) depended on for shade.

THE OCEAN SHORE.

Cool breezes make shade less of a necessity in a driveway near the sea. And there is the sense of freedom and wildness and broad outlook over the water to make us hesitate before doing any planting there. It would be a pity to thrust petty designs or tropical foliage on our rugged headlands to disturb the characteristic beauty of the sand dunes; or to make of any roadway following the seashore an aggressive line of planting, destroying the subtle beauty of the shore line and ruining the contour of headland and mountain and gently sloping hill.

When planting seems a necessity there, and it must form an integral part of the landscape, the native growth and its arrangement should be carefully studied. Where shade is needed, groups of native conifers might form the setting for dwellings or other buildings as the road approaches bold promontories. It is significant that when the Monterey pine and cypress are transplanted to our dry inland valleys their life is very much shortened.

Where deep, wooded cañons end abruptly near the ocean, the growth of redwood or other native trees might be extended in straggling groups, as though they had strayed from the main forest. And where willows, laurels and alders follow the water courses quite to the sea, additional irregular plantings of these same trees might be made nearby upon the shore.

THE SEMI-DESERT COUNTRY.

The desert, too, has its unique beauty which needs no adornment from the hand of man. He is, in a sense, an interloper, and should strive, at least, not to "make nature hideous by his presence."

In the semi-desert regions of southern California yuccas and palms may be legitimately used for planting. There is one native species of the latter—*Washingtonia filifera.* If the native trees do not give enough shade, where heat and light are so intense, there are exotics which might properly be made use of, such as the mimosa, the carob, and the locust. These being of the same general type as the native mesquite, they would in a measure preserve the harmony and character of the landscape.

The piñons and junipers which give such a unique charm to the mesas and low hills, should by all means be made use of for home and highway planting in the regions where they grow.

NOT A GEOGRAPHIC LINE.

It will be seen that there is no thought of drawing a mere geographic line in advocating the choice of native trees for planting. By native is meant the tree or shrub indigenous to a given locality, not to the State as a whole. A redwood tree, for instance, transported from a deep, moist cañon of the northern ranges to the level, semi-desert country of southern California, would be out of harmony with its new environment. A foreign tree might be much more suitable from a landscape point of view. There is the beauty of the three or shrub viewed alone, and the beauty that comes from the harmonious whole. The olive is one of the foreign trees that seems not out of place in certain parts of the California landscape.

DETAILS—PRACTICAL WORKING—GENERAL SCHEME.

To sum up: Preserve the original landscape as far as possible by the planting of native growth.

When, for practical reasons, the native trees and shrubs can not be used for planting, select from exotics those which are of the same type—that resemble the native in form, texture or color.

In presenting this paper we feel how incomplete and inadequate it is to this important subject. But we believe that at least the principles set forth are fundamentally correct. Each section of this great State must, with patience and feeling, solve the planting problem for itself.

It is hoped that the bill (initiated by this organization) creating in each county a forestry commission and forester, will, in its amended form, be signed by the Governor at the coming session of the legislature. We believe that it will prove a practical system for the protection and proper planting of highway trees.

But it would seem that the general supervision of some central body is needed to secure the harmonious treatment of the State as a whole, with its varied, wonderful and characteristic beauty.

THE SEQUOIA SEMPERVIRENS OR COAST REDWOOD OF CALIFORNIA.

By Mrs. Stephen A. Jones.

Scientists tell us that in the Pliocene Age there were nearly twenty species of Sequoia of world wide distribution. They grew all over northern Europe, and in North America, from the latitude of Nebraska and Dakota to Greenland and Alaska. Some of these closely resembled our two surviving species. A mild climate and rich soil encouraged the growth of these magnificent forests, and beneath their shade flourished many plants and animals now extinct.

Then came that unexplained change of climate known as the Ice Age, and immense glaciers extended slowly down from the north over this fertile region, planing down hills, filling up valleys, and grinding off the peaks and ridges of mountains. When it passed away, as in the slow eons of time all things pass, many forms of life had perished utterly, and failed to reappear.

Of the Sequoia only two species survived, and these were both in California, the *S. gigantea* being restricted to the western slopes of the Sierra Nevada Mountains, and the *S. sempervirens* to the Coast Range, from the bay of Monterey to the Oregon line.

It is of the latter, the redwood proper, that this paper treats. They are magnificent specimens of the tree world, their fluted columns rising into the air a height of from two to three hundred feet and measuring from thirty to sixty feet in circumference a little above the ground. For a third or more of the height, their trunks are clear of branches; then the boughs covered with the evergreen foliage stretch out and mingle with each other, forming a roof of verdure. The fibrous bark is of a cinnamon brown color, several inches thick. The wood is also of a rich brownish red; in quality light but firm, free and straight grained, quite durable and slow to burn. The tree is tenacious of life, the stumps even of the oldest trunks long retaining their vitality at the circumference and sprouting into a circle of fresh young shoots. It was on this account that the name Sempervirens—ever strong—was given to it. Scientists differ as to age of the largest trees, but the most conservative estimates place it at two thousand years.

When the Anglo-Saxon pioneer first penetrated into the Coast Range Mountains he saw around him vast stretches of forest verdure, a wilderness ocean. Along the crests, down the ridges, on all the slopes and in the cañons stood the shaggy growth of centuries.

Redwoods rose in stately ranks, and around them, reaching to their lower branches, grew other coniferous trees, also oaks, madrones, horse chestnut, button-wood and laurel. Lower still were thickets of hazelnut, berry bushes and vines, manzanita, California lilac, wild roses, azalea and honeysuckle. Of ferns there was a great variety, the *Woodwardia* having fronds from eight to ten feet long.

From innumerable springs little rills trickled down to join the streams and swell the creeks, in whose waters could be found an abundance of fish. The forest abounded in game—bear, deer and smaller animals. Into this region settlers came and secured land, taking up timber claims and acquiring a title from the Government. The great commercial value of these forests was apparent, and as soon as wagon roads could be cut, sawmills were erected at convenient places on the water courses. The trees that clothed the ridges near what is now Redwood City were the first to fall, being the most accessible, and the lumber was hauled by teams to build the houses of San Francisco. Year after year new roads were cut, new mills put up, and the destruction of the redwoods went on.

A half century has witnessed the gradual denuding of these mountains, until now only a few sections remain whose original beauty has been untouched by ax or fire. The traveler who passes along the roads sees only here and there a remnant of the primeval forest; but he sees everywhere immense stumps, and often prone columns, stately even in their stripped and scorched condition. In some places a thicket of young growth has sprung up, presenting a surface of green foliage to the eye, but in many sections the traveler sees only a parched and barren expanse, stumps, burned logs, the dry beds of streams and a general aspect of desolation.

The building of railroad lines into the rich forests has facilitated the destruction of trees. The branch of the Southern Pacific Railroad which reaches the town of Boulder Creek in the Santa Cruz Mountains, is said to be the most profitable, according to its length, of any part of that system. Its cars haul away from this region annually millions of feet of lumber in various forms—boards, shingles, stakes, railroad ties, telegraph poles, and cordwood. A thousand men find employment in the vicinity of Boulder Creek, and the bare and dusty hillsides bear mute witness to their industry in the past. As a result, this region, one of the most beautiful formerly, is now one of the most barren and unattractive. Springs have dried up, water courses have shrunk to mere threads or disappeared entirely, and the winter rains, no longer held in check by the porous soil of the forests, rush away in torrents as soon as they cease to fall. Even the climate has changed. The rainfall at Boulder Creek was formerly the heaviest in the State, reaching the large amount of 100 inches annually; it is now 40 inches.

Having thus hastily sketched the history and destruction of the redwoods, I will relate the fortunate preservation of the last surviving remnant of these forest monarchs.

THE RESCUE OF THE REDWOODS.

In the northern part of Santa Cruz County, surrounded by ridges of the Coast Range, lies a vast natural amphitheater, known as the Big Basin. It is a heavily wooded tract of land, varied by hills and valleys and traversed by clear streams, which take their rise from the many springs within its boundaries. These streams, uniting to form creeks, find their way through deep, rugged gorges, and finally empty into the Pacific Ocean, not many miles away. From the seaward or western buttress—a ridge 2,300 feet high—one obtains a magnificent view of the ocean on one side and the unbroken forest of the Big Basin on the other.

The land slopes away steeply on either side of this ridge, and the beholder sees, by only turning his head, the foam-fringed shore of the blue Pacific, ten or fifteen miles away, and the tranquil, dark green depths of the redwoods. On the seaward side he can view some traces of the presence and handiwork of man; a lighthouse here and there on a projecting point, a cleared space in the forest, the roof of a ranch home far away. But on the landward side it is just as nature left it, a solid surface of tree tops down all the slopes and in all the cañons.

The Big Basin is not many miles from Boulder Creek, the center of the lumbering industry of this section, but its natural ramparts have preserved it from violation. It would be slow and costly work to cut wagon roads into it and undertake to mill the standing timber and haul it out by teams; so while waiting for the railroad to tunnel through one of its ridges and build a branch line into it, the millmen contented themselves with denuding the more accessible hillsides in the neighborhood of Boulder Creek. But redwood lumber was rising in value in proportion as it grew scarce, and at last the word went forth that the Big Basin was to be invaded, and the last remnant of virgin forest was to be given over to destruction.

Then the dormant public sentiment was aroused; then the cry sent up, "Save the redwoods!" Letters began to appear in the newspapers; scientists bewailed the impending loss to the world; utilitarians prophesied the drying up of all the streams which had their rise in the Big Basin, and the consequent loss of the water for practical uses; sentimentalists deplored the despoiling of so much beauty; sportsmen remembered the deer covers and the trout pools.

Finally, in May, 1900, a party of eight, consisting of representatives of these various classes, went to the place with a view of exploring it, learning the facts of the case, and seeing what measures, if any, could be taken to rescue the redwoods from total destruction.

When our purpose was announced, every facility was placed at our disposal and every courtesy shown us by the owners of the land. We went to Boulder Creek by rail, and thence by team twelve miles into the Big Basin. We took our own tents and bedding, but provisions were hospitably supplied us, likewise the services of a cook and guide. At the end of the wagon road the team left us, and we pitched our tents on the banks of a clear stream, fringed with elders and azaleas, and shaded by giant redwoods.

From this camp, as headquarters, we made long excursions on foot into the depths of the primeval forest. Without a guide we could not have found our way, for the trails were dim and overgrown, often marked only by obscure blazes on trees. Even old hunters, and others experienced in woodcraft, have been lost in this Basin, for it is one succession of wooded hills and valleys and running streams after another, all so much alike that the traveler gets bewildered.

Indian file, with the guide leading, we made our way through the untrodden forest, crossing streams on boulders or fallen logs, beating our way through thickets of hazelnut and huckleberry bushes, coming out into beautiful park-like openings clear of underbrush, hearing no sounds but the querulous challenge of a bluejay or the chatter of a squirrel. It was truly:

"Primeval forest, virgin sod
That Saxon hath not ravished yet."

All around us the redwoods rose in stately ranks, their evergreen boughs blending far above our heads, so that we seemed to be walking through the aisles of some vast natural cathedral.

As we penetrated into the remote recesses of the forest, wondering what new scene of beauty would be unfolded before us as we climbed a ridge or turned the flank of a hill, we realized the joy of explorers; we understood how, in all ages, the charms of the wilderness have lured men away from civilization, and made them count as mere trifles the attendant hardships.

Some of our party measured trees and estimated their commercial value, with a view to naming a price for the land in the event of a future purchase; the sportsmen fished in the trout streams; the poet heard music in the sighing of the wind amid the lofty tree tops; while our photographer set up his camera and took many views of the forest scenery. This gentleman, Andrew P. Hill of San José, has been identified from the first, heart and soul, with the movement to save the redwoods, and though many enthusiastic workers have lent their aid by tongue and pen, by personal influence and active effort, to the cause, yet when a list of all who have participated is written, his name, like Abou Ben Adam, will lead all the rest.

We wandered in this magnificent forest for several days, meeting no one, hearing no human voice except that of our own party and apparently as remote from civilization as if hundreds of miles intervened between us and the haunts and homes of men. The only signs we saw to prove that we were not the first to tread the wilderness were two deserted cabins, on different sections and far apart, which had been the abode of the original owners of this land when they lived on it in order to take up their claims. These cabins stood open to wind and weather and blackberry vines grew on the hearthstones and over the ballen sticks of the mud-daubed chimneys. Nature was fast reclaiming her own. Ferns, waist high, grew around the doorways and obliterated the paths leading to spring or stream, and only the shy lizard darted across the floor which had once echoed to human footsteps.

One night, sitting around our camp fire, with the murmer of the stream in our ears, and the stars visible through the interlacing redwood boughs above us, we talked of the best way to begin in the matter of trying to preserve this forest, to preserve it not only for ourselves and our friends, but for the State, for the world for future ages.

We then and there formed the Sempervirens Club, and pledged ourselves to work for the purchase of this forest as a state park.* It was deemed unwise to ask the General Government to buy it for a reservation, as there was already a bill before congress asking for an appropriation for the purchase of the Big Tree Grove in Calaveras County, so we decided to solicit State aid in the matter.

We came out of the Big Basin full of enthusiasm for our project, and for the next few months we talked of little else. The movement met with warm approval from some people, with outright opposition from others, while many regarded it with apathetic indifference.

Newspapers rallied to our standard, university professors and teachers generally were in sympathy; so were such organizations as the Pioneers' Society, the Native Sons and Native Daughters, etc. We had gained an option of the land most heavily wooded, and the owners promised that no sawmills should be erected or cutting done until the legislature, to meet the following winter, had been asked for an appropriation. In the months that intervened a campaign of education was carried on. Circulars setting forth the project and illustrated by cuts reproduced from photographs taken by Mr. Hill in the Basin were scattered broadcast over the State; innumerable newspaper articles were written; public meetings were held; civic bodies and fraternal organizations passed resolutions. On the other hand, the movement was scoffed at as the project of dreamers and enthusiasts; hard-headed business men said it would not succeed; politicians called it a scheme to rob the State for the benefit of the owners of the Big Basin.

People meeting us on the street stopped to say in the soothing tone one would use to a mentally unbalanced fanatic: This idea of yours is a fine one, but it is impractical; the State will never appropriate so much money for an obscure tract of land away off in the Santa Cruz Mountains. But as Tennyson says in his poem, "The Defense of Lucknow," after stating with cumulative force all the hardships and horrors of that siege—

> "Ever upon the highest roof, the banner of England blew."

So in the face of a thousand difficulties and discouragements the friends of this movement pressed on; so, figuratively speaking, above the din and conflict waved the banner of the Sempervirens Club. Finally, the legislature met, the bill was introduced; then came the tug of war. Friends lobbied for it, enemies opposed it, politicians wrangled over it; leading newspapers of the State took sides for and against it. Space forbids the giving of particulars. Suffice it to say that the fight was a hard one. But finally it became apparent that public sentiment was in favor of it. The bill passed the house and was brought into the senate, had a narrow escape from being snowed under, was rescued and read out of its turn, and passed in the closing days of the session. The next question was, would the Governor sign it or give it a pocket veto? Strong pressure was brought to bear on him to prevent his signing it. These were anxious days for the friends of the movement. They made their first rally, and the consequence was that a flight of telegrams from all over the State reached the Governor's office and lay on his desk and floor as "thick as autumn leaves in the vale of Vallombrosa."

He was convinced that the people wanted, with genuine and strong desire, to save for themselves and posterity that heritage of the ages, that forest of redwoods. He signed the bill, and a shout of triumph went up from all who had worked for the cause. In accordance with the provisions of the bill he named a board of five commissioners, of which he was a member by virtue of his office, to negotiate the purchase of the desired tract. Some delay ensued, as surveys had to be made, boundaries determined upon, titles looked up and other tedious details settled, but a tract of thirty-eight hundred (3800) acres, including the most heavily wooded land in the Big Basin, has now been formally acquired by the State, and is called the State Redwood Park.

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* May 18, 1900.

The original Sempervirens Club, instead of dissolving, as a body whose work is finished, has just been reorganized, with a larger membership than ever. In the future it will work for the acquisition of adjoining territory, for the enlarging and beautifying of the tract thus rescued from destruction.

As a recent result of its efforts, and through the influence of our representatives at Washington, several tracts of adjacent land belonging to the National Government, amounting in all to three thousand one hundred and sixty (3,160) acres, have been given to the park.

That the public appreciates this playground and breathing space provided for them in the midst of inspiring surroundings, is attested by the fact that many hundreds visit it every summer. For their convenience a more direct route of access is desirable, and it is hoped that a new and shorter road into it from Santa Clara Valley may soon be opened.

Also, a scenic boulevard, within the boundaries of the Park, which would permit travel by carriage and automobile, where now there are only narrow foot-trails.

The late Father Kenna, formerly of Santa Clara College, who was identified with the movement to save the Big Basin redwoods and who served on the Commission in an official capacity, was especially active in the matter of building highways to render the Park more accessible. He exerted his influence by tongue and pen, to this end, and one of the last acts of his noble, unselfish life was to collect money to pay for a survey for a scenic driveway around and through the Park. When this project is finally realized, and a name for the new road is chosen, what more appropriate and fitting than to call it the Kenna boulevard?

In conclusion, the writer of this article would like to say that as a charter member of the Sempervirens Club, and one who rejoices in its achievements, she does not wish to claim all the glory of victory for the club. To be sure, we were on the fighting line and our battle cry, "Save the Redwoods," sounded above the din of conflict; but we also heard the shouts of unseen allies, and felt behind us the support of a statewide public sentiment.

It was the reënforcement from invisible spiritual sources, the encouragement and support from scores and hundreds outside the actual membership of the club, which finally enabled our little band of fighters to win the victory. To them much of the credit of the result is due; certainly without their assistance it never could have been achieved.

CHAPTER IX.

SUGGESTIONS TO THE PROSPECTIVE FOREST STUDENT.

In response to the many inquiries received by the department, relative to the opportunities presented by Forestry, and the kind of preparation necessary to fit oneself for this profession, the following information has been prepared. And questions which are not covered here will always be promptly and willingly answered by this department.

Forestry is still a new, and yet clearly established profession, and it presents almost unlimited possibilities to the technically trained man. But there is no profession in existence which demands a more thorough preparation. The first demands for foresters were met with an inadequate supply and it was possible for all to secure employment. Although the profession cannot yet be called crowded, it has reached that stage where the employer, whether it be the Government, State, or private owner, demands high credentials and thorough training of the applicant.

Many young men are attracted to the profession of forestry because of the glamour of the outdoor life, and the rather wide travel which often goes with the work. Being a new profession it is often painted in romantic colors, and no mention is made of the hardships and privations, which must be endured by every forester. Some of these men will be quickly weeded out, but there are many who derive great pleasure and opportunity for development from such work.

The prospective forester may best begin his preparation by a full course in some college where he can gain a knowledge of the basic subjects of forestry. He should include in this course the studies of geology, botany, chemistry, mineralogy, and mathematics, including a practical understanding of the principles of surveying. Graduation at such a college should be followed by a course at some school of instruction in professional forestry.

As far as possible, the vacations should be spent in the woods, acquiring a practical knowledge of forest methods. It is essential that every forester should have a thorough knowledge of lumbering methods, for lumbering is more closely allied to forestry than any other profession. The student may elect to get his practical training by working for the Government service, the State service, or for a private lumber concern.

The only position in the Government service, open to those whose training in forestry is incomplete, is that of field assistant. This is merely a temporary position and was created solely for the purpose of familiarizing young men who are thinking of following forestry in the field and office methods of the Government service. The work is severe and monotonous and no one should accept a position as field assistant unless he is bodily sound and willing to work. The work consists mostly in "valuation surveys" or the measurement of the standing timber on given acres and in "stem analysis" or measurements of the contents and rate of growth upon felled trees. The pay is $50 per month and living expenses, but the student is required to pay his own traveling expenses from his home to the field.

Several of the states employ temporary help during the field season. The work varies considerably in the different states. Where there is a state forest reserve the work is greatly similar to that of the Government, but in the states where there is no state revenue, the work consists mainly of technical investigations throughout the state, under the direction of the forester. The pay differs, depending upon the state and the kind of work, but it is generally about the same as that of the field assistant in the Government Forest Service.

The best way to gain a practical knowledge of lumbering methods is by working for a private lumber concern, and the prospective forester who can spend at least one vacation in working in a logging camp or sawmill, will be able to gain a much broader knowledge of the practical application of forestry. Forestry is largely a matter of the economic use of forests—in other words, of forest operations, and to thoroughly understand utilization, life in close touch with lumbering operations is a necessity. The combination of practical woodcraft and theoretical forestry should be the aim of all students of the subject.

Where the prospective forester is unable to follow up some course similar to the one prescribed, it becomes a question as to what may best be omitted. If one cannot spend the time necessary to complete both the college course and the graduate course at a professional school, the best method is to select some good under-graduate school of forestry. There are several colleges in this country where a very good training in forestry is given. In fact, it is still open to question whether many of these colleges do not offer as satisfactory a course of training as the graduate schools. It is essential, however, that as much time as possible be spent in the woods gaining practical experience in forest methods.

It must be remembered, that in forestry, as in any other scientific profession, only the man who has had a thorough and systematic training can hope to succeed. Other conditions being equal, it is the man with the best training who is always selected for advancement.

No profession offers greater opportunities for individual success through public service than does forestry. Private forestry presents a comparatively new field, for it is only of recent years that the private and corporate owners have paid any attention to the problem of the preservation of their forests and future cuttings. But it is likely, that as forestry becomes recognized, and its practice financially justifiable, private work will offer a more attractive field and greater opportunities than public. Whatever the field, success in the work can only be won by conscientious effort, and involves not only a thorough technical training, but also a practical insight into actual forest conditions.

For those who do not desire to practice forestry or lumbering, there are many opportunities for investments in timber lands which will yield a good revenue, and to one who has not the capital necessary to become an investor, the opportunities offered in the timber brokerage business are unexcelled.

As regards compensation, forestry offers a fair living to the trained man. The trained forester, upon entering the Government service, is given the position of forest assistant. This position carries a salary of $1,100 to $1,200 a year in the beginning, with the payment of all living and traveling expenses incident to field work. The highest salary paid in the Government service is $5,000 a year, which is the salary of the forester. In State work, the salaries vary with the states, but the average is no higher than that received in Government work. It is impossible to estimate the salaries paid in private practice for each concern has its own standard.

Forest Schools in the United States.

The general interest in forestry has grown with marked rapidity in the last two decades. The Federal Government has created National Forests, and several states have established reserves or parks. Many private owners realize the practicability of employing foresters to care for their properties, and an improvement in the smaller holdings is already noticeable.

The early education of the people at large and of their governments on the subject of forestry, was carried on by the United States Division of Forestry and especially by forestry associations which were organized in all parts of country.

Some provision for technical education was made long before opportunity for its application had arisen, and before any professional foresters were in existence to do the teaching. Educational institutions were attracted by the new doctrine, and the desire to assist in the popular movement, led to the introduction of forestry, at least by name, into their curricula. Professors in botany and horticulture, in addition to their regular work would explain as far as they knew, the methods of forestry, or at least give lectures on dendrology and forest geography. By 1897, twenty land grant colleges had in this way introduced the subject.

Dr. Bernhard E. Fernow, LL.D., organized the first professional forest school when, in 1898, he founded the New York State College of Forestry at Cornell University. Dr. Schenck almost simultaneously opened a private school at Biltmore, North Carolina, and thus the era of forest schools was inaugurated.

A year later, Mr. Pinchot endowed another forest school at Yale University. This was followed, in 1902, by the University of Michigan adding a department of forestry, and then followed a real realm of educational enthusiasm, one institution after another adding the subject to its courses.

Today, forestry is taught in three technical or special schools in the United States and elementary courses on the subject are given in several colleges and preparatory schools. A point has been reached where it deserves attention and a desire has been expressed to introduce this nationally important and interesting study in the public schools.

Dr. Schenck states that the tendency in the United States as well as in Germany, with reference to the forest schools, is a tendency of decentralization. This is unfortunate, as small schools do not develop specialists and to further the policy of forestry, specialists are required.

There are now more than twenty different colleges and universities giving complete graduate or under-graduate courses leading to professional degrees in forestry, and several others giving some instruction in the general principles of forestry or in certain branches of it. The principles of forestry are also taught in an elementary way in numerous secondary schools, and one state has a school to fit rangers for its own forest work. This indicates a great advance in forest education and an urgent demand for it. Therefore, a young man wishing to enter forestry work, can find ample opportunity for preparation.

Following is a list of institutions giving instruction in forestry in the United States:*

Post-Graduate.

1. Yale University, Forest School, New Haven, Connecticut.
2. University of Michigan, Forest School, Ann Arbor, Michigan.
3. Harvard University, Forest School, Cambridge, Massachusetts.

The forest schools at Yale and Michigan give a two-year post-graduate course and the degree of Master of Forestry. In addition, Yale has a two months' summer course at Milford, Pike County, Pennsylvania; and Michigan, a six weeks' summer school at Roscommon.

Harvard has a two-year graduate course.

Under-graduate.

The following schools give a four-year course leading to a degree in Forestry:

1. Colorado School of Forestry, Colorado Springs, Colorado. (Also a summer course.)
2. Harvard University, Forest School, Cambridge, Massachusetts. (In Lawrence Scientific School.)
3. Cornell University, Ithaca, New York. (New York State College of Agriculture.)
4. University of Washington, School of Forestry, Seattle, Washington. (Also three months' winter course for forest rangers.)

The following give a three years' course:

1. Berkshire Forest School, Mount Washington, Massachusetts.
2. Pennsylvania State Forest Academy, Mont Alto, Pennsylvania. (Practical work in summer months on Mont Alto Reservation.)

The following schools give short terms or special courses in forestry. Such as devoting certain periods in some term of an agricultural course, giving lectures, two months' summer course in forestry, farm forestry, etc.:

1. Idyllwild School of Forestry, Riverside County, California.
2. Stanford University, Palo Alto, California.
3. University of Chicago, Chicago, Illinois.
4. Winona College of Agriculture, Winona Lake, Indiana.
5. Berea College, Berea, Kentucky.
6. Eric Forest School, Duxbury, Massachusetts.
7. Mount Hermon Boys' School, Mount Hermon, Massachusetts.
8. Smith's Agricultural School and Northampton School of Technology. Northampton, Massachusetts.
9. Crookston School of Agriculture, Crookston, Massachusetts.
10. University of Montana, Missoula, Mont. (Courses in botany and forestry leading to a degree, and short courses in forestry in January, February and March.)
11. Hobart College, Geneva, New York.
12. University of Syracuse, Syracuse, New York. (Technical forestry in junior and senior years. Professional forestry degree after one year spent in graduate study and field work.)
13. Biltmore Forest School, Biltmore, North Carolina. (Course covers one full year leading to degree of Bachelor of Forestry, and, with two years of practical work, the degree of Forest Engineer. It is now a traveling school, having working fields during twelve months of each year.)
14. State Forest School, Bottineau, North Dakota.
15. Antioch College, Yellow Springs, Ohio.
16. Murray State School of Agriculture, Tishomingo, Oklahoma.

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*"American Forestry," September, 1911, issue.

17. Middlebury College, Middlebury, Vermont. (Two years' course in forestry.)
18. Marathon County School of Agriculture and Domestic Economy, Wausau, Wisconsin.
19. Wyman's School of the Woods, Munising, Michigan. (Two years practical course.)

Land grant colleges.

Those giving a four years' course leading to a degree in forestry, are:

1. State Agricultural College, Fort Collins, Colorado.
2. Georgia State College of Agriculture, University of Georgia, Athens, Georgia.
3. University of Idaho, Moscow, Idaho.
4. Iowa State College of Agriculture and Mechanical Arts, Ames, Iowa. (Horticulture and Forestry.)
5. Kansas State Agricultural College, Manhattan, Kansas. (Also post-graduate work.)
6. University of Maine, Orono, Maine. (Also post-graduate work in forestry, leading to a degree of M.S. and a correspondence course in forestry.)
7. Michigan State Agricultural College, East Lansing, Michigan. (Also a five-year course open to graduates of the eighth grade. Graduate work with M.S. degree.)
8. College of Forestry, University of Minnesota, St. Paul, Minnesota. (Offer a four weeks' winter course, including forestry, also graduate work.)
9. Montana Agricultural College, Bozeman, Montana. (Forestry also included in the three-year horticultural course.)
10. University of Nebraska, College of Agriculture, Lincoln, Nebraska. (Instruction in forestry is also included in the one year teachers' course in agriculture for high and normal school teachers.)
11. College of Agriculture and Domestic Science of the Ohio State University, Columbus, Ohio. (Forestry also offered in the first term of the second year of the two-year course in horticulture.)
12. Oregon State Agricultural College, Corvallis, Oregon. (Two-year elementary course in forestry and a six weeks' winter course for forest rangers.)
13. Pennsylvania State College, State College, Pennsylvania. (Forestry, also an elective in the two years' agricultural course.)

Those institutions who devote merely a "period" or year to forestry in connection with their other courses, etc., are:

1. Alabama Polytechnic Institute, Auburn, Alabama.
2. Agricultural and Mechanical College for Negroes, Normal, Alabama.
3. University of Arkansas, Fayetteville, Arkansas.
4. University of California, Berkeley, California. (Course of ten lectures by members of the Forest Service during the summer session.)
5. Connecticut Agricultural College, Storrs, Connecticut.
6. Delaware College, Newark, Delaware.
7. University of Illinois, Illinois.
8. Purdue University, Lafayette, Indiana.
9. Maryland Agricultural College, College Park, Maryland. (Besides the weekly lectures in forestry, farm forestry is taught in the two-year agricultural course.)
10. Massachusetts Agricultural College, Amherst, Massachusetts. (Lectures given annually by State Forester.)
11. Mississippi Agricultural and Mechanical College, Agricultural College, Mississippi.
12. College of Agriculture, University of Missouri, Columbia, Missouri.
13. University of Nevada, Reno, Nevada. (Forestry taught as an elective in the four years' agricultural course.)
14. New Hampshire College of Agriculture and Mechanical Arts, Durham, New Hampshire. (Junior and senior years of agricultural course and in both years of the two years' course.)
15. North Carolina Agricultural and Mechanical College, West Raleigh, North Carolina. (Senior elective, first term, agricultural course.)
16. State Agricultural and Mechanical College for the Colored Race, Greensboro, North Carolina.
17. North Dakota Agricultural College, Agricultural College, North Dakota. (Six weeks' course in forestry in the junior year of agricultural course.)
18. Oklahoma Agricultural and Mechanical College, Stillwater, Oklahoma.
19. Rhode Island College of Agriculture and Mechanical Arts, Kingston, Rhode Island.

20. Clemson Agricultural College of South Carolina, Clemson College, South Carolina.

21. South Dakota Agricultural College, Brookings, South Dakota.

22. University of Tennessee, Knoxville, Tennessee.

23. Agricultural and Mechanical College of Texas, College Station, Texas.

24. Agricultural College of Utah, Logan, Utah. (The U. S. Forest Service and the Utah College offer jointly a three months' winter course for forest rangers.)

25. Virginia Agricultural and Mechanical College and Polytechnic Institute, Blacksburg, Virginia.

26. Hampton Normal and Agricultural Institute, Hampton, Virginia.

27. State College of Washington, Pullman, Washington. (Besides teaching a semester in the horticultural course, there is a school of forestry with a two-year course.)

28. West Virginia University, Morgantown, West Virginia.

29. University of Wisconsin, Madison, Wisconsin.

CHAPTER X.

APPROPRIATIONS AND EXPENDITURES.

The sixty-third and sixty-fourth fiscal years date from July 1, 1911, to July 1, 1913. The appropriations for the above mentioned fiscal years were as follows:

Salary of State Forester	$6,000 00
Salary of Deputy State Forester	3,600 00
Salary of Assistant State Forester	3,200 00
For support of State Board of Forestry, including field and traveling expenses	15,000 00
For printing, binding, stationery, etc.	2,500 00
Total	$30,300 00

The expenditures under this appropriation were as follows:

Salary of State Forester (to November 1, 1912)	$4,000 00
Salary of Deputy State Forester [1](to November 1, 1912)	2,045 00
Salary of Assistant State Forester [2](to November 1, 1912)	1,867 03
Total	$7,912 03
Balance November 1, 1912	$4,887 97

Appropriation for support of State Board of Forestry		$15,000 00
Equipment, supplies and miscellaneous	$870 39	
Fire investigations	845 67	
Educational work (attendance at forestry meetings, lectures delivered, etc.)	974 47	
Forest studies:		
Taxation of timber lands	1,019 10	
Ownership of timber lands	2,038 21	
Cut-over lands	1,691 86	
Street and highway planting	375 77	
Postage	418 00	
Telephone, telegraph and expressage	225 53	
Stenography, typewriting and clerical help	1,911 45	
Janitor	225 00	
Total		10,595 45
Balance November 1, 1912		$4,404 55
Appropriations for printing, binding stationery, etc.		$2,500 00
Fire warnings and notices	$227 37	
Stationery	272 21	
Binding	7 78	
Fire reports, bulletins, forms, etc.	1,247 49	
Total		1,754 85
Balance November 1, 1912		$745 15

The unexpected balance is extremely limited in view of the amount of work in hand. The field investigations could not be conducted as extensively as it was our desire to do, but a good showing has been made nevertheless for the amount expended and the balance of $4,404.55 is in itself so limited that but little new work can be undertaken until the next appropriation.

The foregoing summary explains why the very limited appropriation of $17,500 is entirely disproportionate to the value of the work to the State. The present lack of adequate funds is a problem that burdens the State Forester continually. It is a most undesirable handicap since the progress of the department is hindered in consequence.

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[1] [2] A temporary vacancy existed in the office of both the Deputy and Assistant State Forester during the sixty-third fiscal year.

We have tried to show, by the following estimate, just what is needed for the sixty-fifth and sixty-sixth fiscal years. In order to successfully carry on the work the law contemplates this department shall do, it will be necessary to provide adequate funds. The estimates have been carefully prepared and are designed to show just what is needed.

The present forest laws contemplate that the Department of Forestry shall prevent and suppress forest fires; ascertain the amount and value of forest resources; collect and publish data looking toward a more economic and rational use of forest products; and coöperate with municipalities and individuals in matters pertaining to forest fires, planting and management. The appropriation made, however, is inadequate to carry on much of the work.

The importance of putting into operation a far-sighted forestry policy cannot be over-estimated. It should be borne in mind that the amount asked for in this estimate is an initial rather than an increased appropriation. An appropriation to actually carry on the work of the Forestry Department has never been made.

It is essential that experienced men, who are also trained foresters, be employed. Such men cannot be secured for the salaries now being paid, or if secured, remain only a short length of time. As a result, changes are constantly being made. I urgently recommend an increase of salary, especially for the deputy and assistant, as follows: State Forester, from $3,000 to $3,600 per annum; Deputy State Forester, from $1,800 to $2,400 per annum; Assistant State Forester, from $1,600 to $1,800 per annum.

A biennial appropriation of $15,000 has been made to carry on the work of the department. This includes all field and traveling expenses and general support of the board. It is the entire working capital. The expenses for traveling, temporary assistants, clerical help, equipment, expenses for running the office, books, photographs, fire investigations, and many miscellaneous expenditures, must all be paid from it.

That needed investigations may be undertaken, and the expenses for an entomologist and two forest inspectors may be met, an increase of $10,000 is recommended.

The present appropriation for printing and binding is $2,500. This limited amount must cover the cost of stationery, binding, fire warning notices, fire report and prosecution forms, burning permits, forest laws and publications. Bulletins, circulars, and published results of investigations cost money. The present allotment is insufficient for stationery and fire material alone; and because the work of this department is educational as well as administrative, an increase of $5,000 is earnestly recommended.

No appropriation has been made for the prevention and suppression of forest fires. There are 381.4 billion feet, board measure, of timber in the State of California, of which 248.1 billion feet is privately owned. It has a stumpage value of no less than $762,000,000, and the privately owned timber has a stumpage value exceeding $496,000,000. For every 1,000 feet, board measure, of timber burned the community looses $10 in wages. Reproduction on cut-over land must be protected from fire; and money, expended for fire protection, is nothing more than insurance. There are approximately 10,000,000 acres of timber and brush covered land not protected by the government. State control being essential, the State should be divided into thirty districts with a paid fire patrolman in charge of each. They should receive a salary of $75 per month and expenses, which will amount to about $100 per month for each man. Tools, equipment, transportation, subsistence and pay for temporary fire fighters will require an additional amount of $80,000. Since a perpetual supply of timber is an absolute requisite for the prosperity of the State, a total biennial appropriation of $132,500 (or two-third cent per acre per annum) is necessary to protect the forest wealth of California. This is a conservative estimate and is based on a fire season of five months.

Two forest inspectors at $1,500 per annum (total $6,000) will be needed to assist in establishing fire districts, outlining patrol routes, locating sites for lookout stations, supervision of telephone construction, preparing district maps, assisting in prosecutions, making fire investigations and studying effects of fire; reporting on dangerous slashing and railroad rights of way; inspecting donkey engines, traction engines, sawmill smoke stacks and locomotive smoke stacks. Their work will also call them among timber owners for the purpose of organizing protective associations; with stockmen and summer resort proprietors for purposes of forming similar associations and with county officials for the purpose of county coöperation. The work will be conducted with this end in view; that the cost to the State will, eventually, be greatly reduced.

Problems, peculiar to forestry, which are as important to the forester in comparison as the problems which confront the physician, chemist or astronomer and which can only be solved in a laboratory (the importance of which no one questions), must be solved by systematic experiments and for this an experimental station is necessary. It is important to know what species are best adapted for different purposes, in localities having a wide variance in soil, moisture and climatic conditions. How long a time will be required for trees to reach marketable dimensions; fertility of the seed, and many other practical problems can be solved only at a properly conducted experimental station.

About one hundred and sixty (160) acres of cut-over land should be secured, that practical methods of reforestation can be worked out. Land, suitable for such a purpose could be secured for $1,500. Construction of buildings, lath house, etc., will cost $3,000, and maintenance and up-keep $3,000, annually. An experimental station director at $1,200 per annum will be needed. Seedlings could then be supplied at cost, upon application, to facilitate the reforestation of watersheds and cut-over lands.

An unestimated amount of timber is destroyed annually by forest insects. That the amount of damage to standing and felled timber may be accurately determined and practical methods of control devised, it is urged that this work be added to and undertaken by this department. It cannot be satisfactorily handled by any other branch of the State service. There is an unlimited field for original investigations without duplication of work. The forest crop deserves attention as well as agricultural crops. An entomologist at $1,600 per annum is recommended.

Summary of Estimates.

Appropriation made in 1911.	Amount.	Increase recommended.	Total recommendation for 1913.
Salary of State Forester	$6,000	$1,200	$7,200
Salary of Deputy State Forester	3,600	1,200	4,800
Salary of Assistant State Forester	3,200	400	3,600
Support State Board of Forestry	15,000	10,000	25,000
Printing and binding	2,500	5,000	7,500
Totals	$30,300	$17,800	$48,100 30,300
Total increase			$17,800

New Appropriation Recommended.

Designation.		Amount.
Prevention and suppression of forest fires		$132,500
30 district firewardens, 5 months at $75 per month	$22,500	
Traveling expenses of wardens at $100 per month	30,000	
Equipment and fire fighting	80,000	
	$132,500	
Forest experimental station		4,500
Purchase of site, 160 acres	$1,500	
Construction	3,000	
	$4,500	
Salary experimental station director		2,400
Support of experimental station		6,000
Salary 2 forest inspectors at $1,500 per annum		6,000
Salary forest entomologist		3,200
Total		$154,600

NOTE.—The complete report could not be published because of the lack of funds. The portions omitted pertain to forest fire, ownership of timber lands, forest taxation, forest laws, and studies completed since the last report.

The completed studies are available for distribution in bulletin form. They are "Wood-using Industries of California," and "Pharmacal Plants and Their Culture."

FORTY-FOURTH ANNUAL REPORT

OF THE

INSURANCE COMMISSIONER

STATE OF CALIFORNIA

FOR THE YEAR ENDING DECEMBER 31, 1911

E. C. COOPER, Insurance Commissioner
SAN FRANCISCO

SACRAMENTO
Friend Wm. Richardson - - Superintendent of State Printing
1912

FORTY-FOURTH ANNUAL REPORT

OF THE

INSURANCE COMMISSIONER OF THE STATE OF CALIFORNIA.

INSURANCE DEPARTMENT,
SAN FRANCISCO, July 1, 1912.

To His Excellency HIRAM W. JOHNSON,
Governor of the State of California.

SIR: In compliance with the provisions of section 595 of the Political Code, I herewith respectfully submit the Forty-fourth Annual Report of this Department, pertaining to all classes of insurance business and covering the calendar year ending December 31, 1911.

The total number of insurance companies, except fraternal insurance societies, authorized to transact business in the State of California during 1911 was 258, classified as follows:

California stock fire and marine insurance companies	3
California county mutual fire insurance companies	18
California legal reserve life insurance companies	7
California assessment life, accident and health insurance companies	1
California miscellaneous stock companies	11
Other states stock fire and marine insurance companies	87
Other states mutual fire insurance companies	4
Other states fire inter-insurance associations	2
Other states legal reserve life insurance companies	34
Other states assessment life insurance companies	2
Other states miscellaneous stock companies	47
Foreign stock fire and marine insurance companies	39
Foreign miscellaneous stock companies	3
	258

The above shows an increase of 25 in the number of authorized companies on December 31, 1911, as compared with last year's report.

In addition to the above, twenty-four brokers were licensed under section 596 of the Political Code to write "Surplus Line" insurance. Nine confined their business to fire insurance, eight transacted both fire and marine and miscellaneous business, and six transacted no business.

COMPANIES ORGANIZED IN CALIFORNIA DURING 1911.

California National Life Insurance Company, San Diego, incorporated as a legal reserve stock company	February 15, 1911.
California State Life Insurance Company, Sacramento, incorporated as a legal reserve stock company	December 27, 1911.
Sunset Assurance Association, San Diego, incorporated as a mutual life, health and accident company on the assessment plan in accordance with section 453*d* to 453*p* (both inclusive) of the Civil Code	September 6, 1911.
Premier Indemnity Assurance Company, San Diego, incorporated as a stock, accident and health insurance company	October 16, 1911.

The above companies were examined as required by section 597 of the Political Code, were found to have complied with all the requirements of the law, and were licensed to commence business in California on the dates mentioned above.

COMPANIES ADMITTED DURING THE YEAR.

The following named companies were admitted to transact business in the State during the year:

Fire and Marine (Stock).

American Union Fire Insurance Company	Philadelphia, Penn.
Detroit Fire and Marine Insurance Company	Detroit, Mich.
Franklin Fire Insurance Company	Washington, D. C.
National Ben Franklin Fire Insurance Company	Pittsburg, Penn.
New Jersey Fire Insurance Company	Newark, N. J.
Northern Insurance Company	New York, N. Y.
Standard Fire Insurance Company	Hartford, Conn.
Sovereign Fire Assurance Company	Toronto, Canada.
United Firemen's Insurance Company	Philadelphia, Penn.

Fire and Marine (Mutual).

Central Manufacturers Mutual Insurance Company	Van Wert, Ohio.
Fitchburg Mutual Fire Insurance Company	Fitchburg, Mass.
Indiana Lumbermen's Mutual Insurance Company	Indianapolis, Ind.
Northwestern Mutual Fire Association	Seattle, Wash.

Life (Legal Reserve).

California National Life Insurance Company	San Diego, Cal.
California State Life Insurance Company	Sacramento, Cal.
International Life Insurance Company	St. Louis, Mo.

Life (Assessment).

Guarantee Fund Life Association	Omaha, Neb.
Merchants' Life Association	Burlington, Iowa
Sunset Assurance Association	Santa Barbara, Cal.

Miscellaneous (Stock).

American Casualty Company	Tacoma, Wash.
American Fidelity Company	Montpelier, Vt.
Equitable Surety Company	St. Louis, Mo.
German Commercial Accident Company	Philadelphia, Penn.
Great Eastern Casualty Company	New York, N. Y.
Inter-Ocean Life and Casualty Company	Indianapolis, Ind.
Medical Protective Company	Fort Wayne, Ind.
Premier Indemnity Assurance Company	San Diego, Cal.
Royal Indemnity Company	New York, N. Y.

County Mutual Fire Insurance Company.

Butte County Farmers' Mutual Fire Insurance Company	Chico, Cal.

Inter-Insurance Associations.

Individual Underwriters of New York	New York, N. Y.
New York Reciprocal Underwriters	New York, N. Y.

COMPANIES WITHDRAWN.

The following named companies ceased transacting business during the year, under the following conditions:

Ætna Indemnity Company, of Hartford, went into the hands of a receiver on January 11, 1911.

Colorado National Life Insurance Company, of Denver, was reinsured by the Columbian National Life Insurance Company, of Boston, on June 9, 1911.

Eastern Fire Insurance Company, of Atlantic City, was reinsured by the Camden Fire Insurance Company of Camden, April 18, 1911.

Golden State Life Insurance Company, of Los Angeles, merged with the San Francisco Life Insurance Company, on October 1, 1911.

Rochester German Fire Insurance Company, of New York, merged with the German-American Insurance Company of New York, on May 1, 1911.

Spring Garden Insurance Company, of Philadelphia, Union Insurance Company, of Philadelphia and the Insurance Company of Pennsylvania, merged on August 16, 1911, under name of ''Insurance Company of the State of Pennsylvania.''

The Union Health and Accident Insurance Company, of Denver, notified this Department on February 15, 1911, that it had no outstanding risks in California and had withdrawn from the State.

The United Surety Company, of Philadelphia, went into the hands of a receiver on January 13, 1911.

The Washington Fire Insurance Company was reinsured by the Fireman's Fund Insurance Company of San Francisco.

COMPANIES EXAMINED.

The following named companies were examined as to their financial condition by this Department during the year:

California Companies.

California National Life Insurance Company, San Diego.
California State Life Insurance Company, Sacramento.
Golden State Life Insurance Company, Los Angeles.
Los Angeles Fire Insurance Company, Los Angeles.
Occidental Life Insurance Company, Los Angeles.
Pacific Coast Casualty Company, San Francisco.
Pacific Mutual Indemnity Company, Los Angeles.
Pacific Mutual Life Insurance Company, Los Angeles.
Pacific Surety Company, San Francisco.
Premier Indemnity Assurance Company, San Diego.
San Francisco Life Insurance Company, San Francisco.
Sunset Assurance Association, Santa Barbara.
West Coast Life Insurance Company, San Francisco.
Western States Life Insurance Company, San Francisco.

Companies of Foreign Countries.

Law Union and Rock Insurance Company (Pacific Coast Department), London.

DEPOSITS MADE BY COMPANIES IN CALIFORNIA.

The following tabulations show deposits of securities on December 31, 1911, made through this Department, with the State Treasurer of California:

For the benefit of all Policyholders.

Name of company.	Location.	Deposited in accordance with	Amount of deposit.
*California Mutual Benefit Society	San Francisco	Section 453e, Civil Code	$5,000 00
Fireman's Fund	San Francisco	Section 618, Political Code	100,000 00
*Fidelity Mutual Aid Association	San Francisco	Section 453e, Civil Code	5,000 00
Pacific Coast Casualty Company	San Francisco	Section 618, Political Code	282,500 00
Pacific Mutual Indemnity	Los Angeles	Section 618, Political Code	115,000 00
Pacific Mutual Life	Los Angeles	Section 618, Political Code	250,000 00
Pacific Surety Company	San Francisco	Section 618, Political Code	104,250 00
Sunset Assurance	Santa Barbara	Section 453e, Civil Code	5,000 00
*Mutual Indemnity	San Francisco	Section 453e, Civil Code	5,000 00
Total			$871,750 00

*Companies not now licensed.

For the benefit of all Policyholders in the United States.

Name of company.	Location.	Deposit as per	Amount of deposit.
New Zealand Insurance Company	Auckland	Section 594a, Political Code	$250,000 00
Western Assurance Company	Toronto	Section 594a, Political Code	101,200 00
Total			$351,200 00

For the benefit of Registered Policyholders.

Name of company.	Location.	Deposit as per	Amount of deposit.
Occidental Life	Los Angeles	Section 634, Political Code	$100,000 00
Pacific Mutual Life	Los Angeles	Section 634, Political Code	1,653,125 00
San Francisco Life	San Francisco	Section 634, Political Code	55,800 00
Western States Life	San Francisco	Section 634, Political Code	101,000 00
Total			$1,909,925 00
Aggregate			$3,132,875 00

SUMMARY OF ASSETS, LIABILITIES, AND SURPLUS.

The following summary shows the total capital stock, total admitted assets, total liabilities, total net surplus and surplus as regards policyholders of California companies, companies of other states, companies of foreign countries, and the totals thereof, taken from the reports filed by the companies:

	California companies.	Companies of other states.	Companies of foreign countries.	Totals.
Capital stock (paid up in cash)	$9,051,000 00	$102,032,354 00	$12,561,900 00	$123,645,254 00
Total admitted assets	44,749,673 06	4,261,844,110 25	111,585,916 91	4,418,179,700 22
Total liabilities (except capital)	29,340,061 19	3,798,840,190 71	69,618,970 98	3,897,799,222 88
Net surplus	6,358,611 87	360,063,809 09	29,405,045 93	395,827,466 89
Surplus as regards policyholders	15,409,611 87	462,096,163 09	41,966,945 93	519,472,720 89

Divided as follows:

California Companies.

	Fire and marine.	Life.	Miscellaneous.	Totals.
Capital stock (paid up in cash)	$2,109,000 00	$3,600,000 00	$3,342,000 00	$9,051,000 00
Total admitted assets	10,274,867 87	27,887,357 81	6,587,447 38	44,749,673 06
Total liabilities (except capital)	5,291,893 83	22,583,465 08	1,464,702 28	29,340,061 19
Net surplus	2,873,974 04	1,703,892 73	1,780,745 10	6,358,611 87
Surplus as regards policyholders	4,982,974 04	5,303,892 73	5,122,745 10	15,409,611 87

Companies of other states.

	Fire and marine.	Life.	Miscellaneous.	Totals.
Capital stock (paid up in cash)	$62,481,904 00	$13,445,350 00	$26,105,100 00	$102,032,354 00
Total admitted assets	391,854,703 13	3,774,872,611 97	95,116,795 15	4,261,844,110 25
Total liabilities (except capital)	200,566,728 15	3,553,045,576 04	45,227,886 52	3,798,840,190 71
Net surplus	128,806,070 98	207,473,929 48	23,783,808 63	360,063,809 09
Surplus as regards policyholders	191,287,974 98	220,919,279 48	49,888,908 63	462,096,163 09

Companies of foreign countries.

	Fire and marine.	Miscellaneous.	Totals.
Deposit capital	$11,561,900 00	$1,000,000 00	$12,561,900 00
Total admitted assets	100,749,118 56	10,836,798 35	111,585,916 91
Total liabilities (except capital)	61,659,469 35	7,959,501 63	69,618,970 98
Net surplus	27,527,749 21	1,877,296 72	29,405,045 93
Surplus as regards policyholders in United States	39,089,649 21	2,877,296 72	41,966,945 93

PREMIUM INCREASE AND DECREASE.

The fire insurance business reported by authorized companies shows an increase in premiums received of $254,378.90; while the reports filed by brokers licensed to place business in unauthorized companies show a decrease of $55,439.22.

The marine business (including team and vehicle) reported by authorized companies shows an increase of $141,182.61, and reports filed by the brokers licensed to place business in unauthorized companies show an increase of $10,595.48.

The ordinary life insurance business shows an increase in premiums received on new policies of $396,114.34, and renewal premiums of $914,049.52.

The industrial life insurance business shows an increase in premiums received on new policies of $2,901.88, and an increase in premiums received on renewals of $178,287.84.

Returns made by the assessment life insurance companies show an increase in premiums received of $21,903.74.

The returns made by the county mutual fire insurance companies show an increase in premiums received of $18,118.05.

The health, accident, liability, fidelity and surety, plate glass, boiler and machinery, burglary and theft, title, workmen's collective, team and vehicle, automobile property damage, fly wheel, credit indemnity, physicians' defense, and sprinkler insurance, all show an increase in premiums received, while live stock shows a decrease.

Premiums Received and Losses Paid.

	Premiums received.	Losses paid.
Fire (Stock)	$16,074,851 27	$4,593,654 61
Fire (Mutual)	34,938 83	10,564 58
Fire (Inter-Insurance)	45,112 91	----------
Fire (County Mutual)	66,103 20	31,854 69
Marine (including Team and Vehicle)	2,321,318 35	1,375,225 59
Life (Ordinary)	14,811,167 84	5,719,644 03
Life (Industrial)	1,466,605 96	354,320 28
Life (Assessment)	274,780 77	222,294 31
Accident	1,268,899 34	528,944 12
Health	209,304 31	93,473 92
Liability	1,268,386 67	390,930 32
Fidelity and Surety	795,967 03	173,388 58
Plate Glass	158,278 94	42,141 36
Boiler and Machinery	52,931 58	1,206 50
Burglary and Theft	103,030 69	49,937 08
Title	839,750 16	2,125 93
Workmen's Collective	63,715 26	25,387 24
Team and Vehicle (including automobile property damage)	62,136 41	21,888 74
Fly Wheel	1,370 78	----------
Sprinkler	10,946 96	958 86
Credit Indemnity	33,805 00	6,739 81
Live Stock	15,068 57	10,930 00
Physicians' Defense	3,390 74	124 55
Totals	$39,981,861 57	$13,655,735 10

In addition to the above, the "Surplus Line Brokers" reported as follows:

	Net premiums received.	Losses paid.
Fire	$57,096 17	*
Marine	62,591 10	*

FIRE INSURANCE.

The total number of companies authorized to transact fire business during the year was 114.

Of these, 108 were stock companies, 4 were mutual companies, and 2 were inter-insurance associations.

The amount written during 1911 was $368,563,729.03 less than written in 1910.

The premiums received show an increase of $254,378.90, while the losses paid show a decrease of $1,409,207.19.

The comparisons are shown by the following figures:

Amount written in 1911	$966,664,270 00
Amount written in 1910	1,335,227,999 03
Decrease	$368,563,729 03

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*Losses not reported.

Premiums received in 1911	$16,154,903 01
Premiums received in 1910	15,900,524 11
Increase	$254,378 90
Losses paid in 1911	$4,604,219 19
Losses paid in 1910	6,013,426 48
Decrease	$1,409,207 29

Fifteen new companies and associations were licensed to transact fire insurance business during the year, namely:

American Union Fire Insurance Company	Philadelphia
Central Manufacturers Mutual Fire Insurance Company	Van Wert
Detroit Fire and Marine Insurance Company	Detroit
Fitchburg Mutual Fire Insurance Company	Fitchburg
Franklin Fire Insurance Company	Washington, D. C.
Indiana Lumberman's Mutual Insurance Company	Indianapolis
Individual Underwriters of New York	New York
National Ben Franklin Fire Insurance Company	Pittsburg
New Jersey Fire Insurance Company	Newark
New York Reciprocal Underwriters	New York
Northern Insurance Company	New York
Northwestern Mutual Fire Association	Seattle
Standard Fire Insurance Company	Hartford
Sovereign Fire Assurance Company	Toronto
United Firemen's Insurance Company	Philadelphia

The following summary shows the amount of risks written, premiums received, losses paid and ratio of losses to premiums, comparing business done by California companies, companies of other states, companies of foreign countries, and the totals thereof:

	California companies.	Companies of other states.	Companies of foreign countries.	Totals.
Amount written	$35,051,042 00	$614,231,878 00	$317,381,350 00	$966,664,270 00
Premiums received	867,818 64	10,160,270 53	5,126,813 84	16,154,903 01
Losses paid	259,944 19	2,904,969 86	1,439,305 14	4,604,219 19
Ratio of losses to premiums	29.9	28.5	28.0	28.5

The foregoing figures show that 3.6 per cent of the fire business was written by California companies, with a loss ratio of 29.9 per cent; 63.6 per cent by companies of other states, with a loss ratio of 28.5 per cent, and 32.8 per cent by companies of foreign countries, with a loss ratio of 28.0 per cent.

The following tabulation shows that during the past twenty-seven years the fire insurance companies have received in premiums in California $231,265,439.49, and paid out in losses $236,221,011.79:

	Premiums received.	Losses paid.	Ratio of losses to premiums.
1884	$4,538,062 44	$1,295,594 48	28.5
1885	4,540,883 39	2,033,257 05	44.8
1886	5,185,772 23	2,654,371 08	51.2
1887	5,590,353 89	2,101,482 52	37.6
1888	6,087,041 48	3,049,030 42	50.1
1889	6,158,754 64	2,572,001 93	41.7
1890	6,303,324 05	2,753,392 22	43.7
1891	6,669,998 72	2,408,156 05	36.1
1892	6,975,185 15	2,715,819 95	38.9

	Premiums received.	Losses paid.	Ratio of losses to premiums.
1893	$6,780,453 93	$2,667,160 24	39.4
1894	6,336,734 55	2,815,671 30	44.4
1895	4,704,584 11	2,850,672 07	60.6
1896	3,817,316 18	2,645,397 45	69.3
1897	4,767,019 28	2,637,706 71	55.3
1898	6,657,887 55	3,578,294 69	53.7
1899	5,545,260 51	2,882,973 60	52.0
1900	5,795,506 75	2,430,242 35	41.9
1901	7,522,401 88	2,344,581 05	31.2
1902	7,339,984 39	2,655,301 58	36.2
1903	8,288,354 90	4,342,785 60	52.4
1904	10,104,033 49	3,830,252 77	38.1
1905	10,353,808 04	3,883,540 20	37.5
1906	13,368,350 87	146,306,376 92	1094.4
1907	16,242,105 95	*7,008,035 97	43.1
1908	14,442,623 40	*5,345,988 35	37.0
1909	15,094,210 60	5,795,279 57	38.4
1910	15,900,524 11	6,013,426 48	37.8
1911	16,154,903 01	4,604,219 19	28.5
Totals	$231,265,439 49	$236,221,011 79	

The ratio of losses to premiums on fire risks for the thirty-five years next preceding is shown by the following tabulation:

1876	32.2	1885	44.8	1894	44.4	1903	52.4
1877	31.2	1886	51.2	1895	60.6	1904	38.1
1878	26.3	1887	37.6	1896	69.3	1905	37.5
1879	32.5	1888	50.1	1897	55.3	1906	1094.4
1880	32.5	1889	41.7	1898	53.8	1907	43.1
1881	33.3	1890	43.7	1899	52.0	1908	37.0
1882	39.9	1891	36.1	1900	41.9	1909	38.4
1883	39.1	1892	38.9	1901	31.2	1910	37.8
1884	28.5	1893	39.4	1902	36.2	1911	28.5

"SURPLUS LINE" FIRE INSURANCE.

The returns made by brokers licensed to place business in companies not authorized to transact business in this State under the provisions of section 596 of the Political Code show a decrease in amount procured or placed during the year, premiums charged therefor, amount canceled and premiums returned, as shown by the following comparisons:

Gross amount procured or placed during 1911	$4,945,872 16
Gross amount procured or placed during 1910	10,840,080 12
Decrease	$5,894,207 96
Premiums charged in 1911	$70,290 88
Premiums charged in 1910	141,017 78
Decrease	$70,726 90
Amount canceled during 1911	$1,941,565 00
Amount canceled during 1910	4,052,380 05
Decrease	$2,110,815 04
Premiums returned in 1911	$13,194 71
Premiums returned in 1910	28,482 39
Decrease	$15,287 68

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*Includes some payments for losses suffered in 1906.

The decrease in "Surplus Line" fire insurance transacted during 1911, as compared with that of 1910, is due largely to San Francisco's return to more normal conditions and the duly admitted companies being able to better carry the risks. During 1911 only seventeen brokers transacted "Surplus Line" fire insurance in California as against twenty in 1910.

COUNTY FIRE MUTUALS.

The business transacted by the companies referred to as "County Fire Mutuals" shows an increase in amount written, premiums received and losses paid, as shown by the following figures:

Amount written in 1911	$8,785,679 88
Amount written in 1910	7,191,689 25
Increase	$1,593,990 63
Premiums received in 1911	$66,103 20
Premiums received in 1910	47,985 15
Increase	$18,118 05
Losses paid in 1911	$31,854 69
Losses paid in 1910	25,389 29
Increase	$6,465 40

MARINE INSURANCE.

The returns made by the companies authorized to transact this character of business show an increase in the amount written in 1911 over that written in 1910 of $38,260,938.70 and an increase in the amount of premiums received of $141,182.61, with a decrease in losses paid of $313,840.22. The comparisons are as follows:

Amount written in 1911	$412,159,573 00
Amount written in 1910	373,898,634 30
Increase	$38,260,938 70
Premiums received in 1911	$2,321,318 35
Premiums received in 1910	2,180,135 74
Increase	$141,182 61
Losses paid in 1911	$1,375,225 59
Losses paid in 1910	1,689,065 81
Decrease	$313,840 22

The business of marine insurance for the year 1911 is indicated in the following summary, in which is given the amount of risks written, premiums received and losses paid, and ratio of losses to premiums of

California companies, companies of other states, and foreign countries and the totals thereof:

	California companies.	Companies of other states.	Companies of foreign countries.	Totals.
Amount written	$82,474,412 00	$70,899,408 60	$258,785,752 40	$412,159,573 00
Premiums received	479,534 03	757,729 16	1,084,055 16	2,321,318 35
Losses paid	255,283 63	439,650 80	680,291 16	1,375,225 59
Ratio of losses to premiums	53.2	58.0	62.7	59.2

These figures show that 20.0 per cent of the marine business was written by California companies, with a loss ratio of 53.2 per cent; 17.2 per cent by companies of other states, with a loss ratio of 58.0 per cent, and 62.8 per cent by companies of foreign countries with a loss ratio of 62.7.

The following tabulation shows that during the past twenty-seven years the marine companies have received in premiums $45,797,876.12, and paid out in losses $27,948,414.76:

	Premiums received.	Losses paid.	Ratio of losses to premiums.
1884	$1,433,138 20	$468,410 86	32.7
1885	1,395,993 67	855,630 41	61.3
1886	1,515,279 79	676,325 30	43.8
1887	971,859 86	583,772 27	60.1
1888	1,752,696 58	955,239 49	54.5
1889	1,602,434 12	926,811 88	57.8
1890	1,526,453 95	1,109,431 64	72.7
1891	1,927,088 44	736,735 18	38.2
1892	1,638,876 63	1,059,120 83	64.6
1893	1,354,439 16	808,792 67	59.7
1894	1,113,840 90	418,106 22	37.5
1895	1,249,317 11	887,761 60	71.1
1896	1,418,739 79	819,221 66	57.7
1897	1,689,658 74	1,375,911 66	81.4
1898	1,789,140 56	765,624 90	42.8
1899	1,557,487 19	818,261 22	52.5
1900	1,938,123 83	1,134,047 78	58.5
1901	1,802,525 31	978,308 20	54.3
1902	1,692,599 26	1,074,070 22	63.5
1903	1,511,365 30	1,034,522 92	68.4
1904	1,502,518 52	899,004 65	59.8
1905	1,581,196 83	1,463,939 42	92.5
1906	1,628,982 01	1,394,987 73	85.6
1907	1,885,535 22	1,276,704 91	67.7
1908	1,864,861 07	994,487 39	53.3
1909	1,952,269 99	1,368,892 35	70.1
1910	2,180,135 74	1,689,065 81	77.4
1911	2,321,318 35	1,375,225 59	59.2
Totals	$45,797,876 12	$27,948,414 76	

"SURPLUS LINE" MARINE INSURANCE.

The returns made on marine surplus line insurance show an increase in amount placed and premiums charged therefor, and an increase in amount canceled with a decrease in premiums returned.

The figures are as follows:

Gross amount procured or placed during 1911	$4,235,617 30
Gross amount procured or placed during 1910	3,725,167 27
Increase	$510,450 03

Premiums charged in 1911	$64,773 95
Premiums charged in 1910	55,705 62
Increase	$9,068 33

Amount canceled during 1911	$179,362 00
Amount canceled during 1910	160,715 00
Increase	$18,647 00

Premiums returned during 1911	$2,182 85
Premiums returned during 1910	3,710 00
Decrease	$1,527 15

LIFE INSURANCE.

Level Premium Companies.

The total number of companies transacting this character of insurance business in the State of California during 1911 was 41. Of these seven were organized under the laws of California and thirty-four under the laws of other states.

The amount written in 1911 was $62,960,670.00, represented by 27,298 policies, while the amount written in 1910 was $54,270,117.85, represented by 24,334 policies, showing an increase in amount written during the year of $8,690,552.15, represented by 2,964 policies.

The premiums received on new policies in 1911 amounted to	$2,237,336 59
The premiums received on new policies in 1910 amounted to	1,841,222 25
Showing an increase of	$396,114 34

The amount renewed in 1911 was $323,163,978.00, represented by 149,059 policies, while the amount renewed in 1910 was $273,419,799.96, represented by 127,699 policies, showing an increase in amount renewed of $49,744,178.04, represented by 21,360 policies.

The renewal premiums in 1911 amounted to	$12,573,831 25
The renewal premiums in 1910 amounted to	11,659,781 73
Showing an increase of	$914,049 52

The total premiums received in 1911 were	$14,811,167 84
The total premiums received in 1910 were	13,501,003 98
Showing an increase of	$1,310,163 86

The amount in force at close of 1911 was	$402,642,991 00
The amount in force at close of 1910 was	365,459,289 65
Showing an increase of	$37,183,701 35

The number of policies in force at close of 1911	185,171
The number of policies in force at close of 1910	169,907
Showing an increase of	15,264

The losses and endowments paid in 1911 amounted to	$5,719,644 03
The losses and endowments paid in 1910 amounted to	4,771,862 70
Showing an increase of	$947,781 33

Three new life insurance companies were licensed to transact business in California during the year, namely:

California State Life Insurance Company, Sacramento, Cal.
California National Life Insurance Company, San Diego, Cal.
International Life Insurance Company, St. Louis, Mo.

INDUSTRIAL BUSINESS.

Three companies transacted this character of business during the year, and the comparisons are shown by the following figures:

	Number.	Amount.
Policies written during 1911	89,844	$13,816,386 00
Policies written during 1910	90,569	14,307,792 00
Showing a decrease of	725	$491,406 00
Policies renewed during 1911	202,347	$25,493,433 00
Policies renewed during 1910	180,233	31,979,211 00
Showing an increase of	22,114	$3,514,222 00
Total premiums received during 1911		$1,466,605 96
Total premiums received during 1910		1,285,416 24
Showing an increase of		$181,189 72
Total losses paid during 1911		$354,320 28
Total losses paid during 1910		305,356 64
Showing an increase of		$48,963 64

The amount in force at close of 1911 was $46,092,104.00, represented by 284,062 policies, while the amount in force at close of 1910 was $40,040,942.00, represented by 241,742 policies, showing an increase of $6,051,162.00, represented by 42,320 policies.

The following summary shows the condition of life insurance business in California for the year 1911:

Ordinary Life Business.

Number of policies in force	185,171
Amount of insurance in force	$402,642,991 11
Premiums received	14,811,167 84
Losses and endowments paid	5,719,644 03

Industrial Life Business.

Number of policies in force	284,062
Amount of insurance in force	$46,092,104 00
Premiums received	1,466,605 96
Losses and endowments paid	354,320 28

The following figures show that the premiums received during the past twenty-seven years by the ordinary life insurance companies in California have been $177,803,879.15, and the losses and endowments paid $73,313,257.89:

	Premiums received.	Losses and endowments paid.
1884	$1,548,671 16	$1,426,340 26
1885	1,590,344 82	1,114,844 57
1886	1,802,916 68	1,116,729 44
1887	2,073,203 65	1,051,055 11
1888	2,839,141 80	1,205,106 91
1889	3,253,759 62	1,545,497 51
1890	3,507,207 07	1,485,143 27
1891	3,818,753 65	1,626,832 60
1892	4,096,824 84	1,594,898 56
1893	4,255,153 76	2,093,825 96
1894	4,086,307 40	1,943,243 18
1895	4,077,486 45	1,973,822 49
1896	4,004,510 06	2,106,786 19
1897	4,252,455 64	2,068,975 06
1898	4,491,699 78	2,471,974 78
1899	4,925,429 09	2,473,543 38
1900	5,683,412 06	2,430,650 33
1901	6,242,443 41	2,975,847 61
1902	7,480,488 89	2,887,479 63
1903	8,866,405 31	2,881,932 78
1904	10,166,656 76	3,121,817 19
1905	10,550,503 86	3,400,490 37
1906	10,643,952 00	4,081,162 73
1907	11,017,207 20	4,995,417 25
1908	11,658,903 26	4,343,935 04
1909	12,557,869 31	4,404,398 96
1910	13,501,003 98	4,771,862 70
1911	14,811,167 84	5,719,644 03
Totals	$177,803,879 15	$73,313,257 89

The returns made by the companies transacting industrial business for the ten years ending December 31, 1911, are indicated by the following summary:

	Premiums received.	Losses paid.
1902	$794,019 00	$117,748 30
1903	507,075 00	148,061 00
1904	667,152 51	169,933 98
1905	725,705 69	175,854 95
1906	810,355 30	213,436 29
1907	845,188 77	212,701 78
1908	920,464 73	225,829 95
1909	1,058,790 00	275,574 95
1910	1,285,416 24	305,356 64
1911	1,466,604 96	354,320 28
Totals	$9,080,772 20	$2,198,818 12

ASSESSMENT LIFE INSURANCE.

Four companies were authorized to transact this character of insurance business during the year and reported as follows:

	Number.	Amount.
Certificates in force December 31, 1910	10,732	$21,464,000 00
Certificates issued during year 1911	2,623	4,389,400 00
Totals	13,355	$25,853,400 00
Certificates terminated during year 1911	785	1,556,700 00
Certificates in force December 31, 1911	12,570	$24,296,700 00
Premiums or assessments received		274,780 77
Losses paid		222,294 31

MISCELLANEOUS INSURANCE.

All the classes of miscellaneous business show a gain over the preceding year except live stock, as shown by the following figures:

HEALTH.

Premiums received in 1911	$209,304 31
Premiums received in 1910	145,915 56
Increase	$63,388 75
Losses paid in 1911	$93,473 92
Losses paid in 1910	49,119 96
Increase	$44,353 96

Seven new companies were licensed to transact health insurance during 1911, namely:

American Fidelity Company	Montpelier
American Casualty Company	Tacoma
German Commercial Accident Insurance Company	Philadelphia
Great Eastern Casualty Company	New York
Inter-Ocean Life and Casualty Company	Indianapolis
Premier Indemnity Assurance Company	San Diego
Royal Indemnity Company	New York

ACCIDENT.

Premiums received in 1911	$1,268,899 34
Premiums received in 1910	1,155,040 56
Increase	$113,858 78
Losses paid in 1911	$528,944 12
Losses paid in 1910	415,723 42
Increase	$113,220 70

Seven new companies were licensed to transact accident insurance business during 1911, namely:

American Casualty Company	Tacoma
American Fidelity Company	Montpelier
German Commercial Accident Insurance Company	Philadelphia
Great Eastern Casualty Company	New York
Inter-Ocean Life and Casualty Company	Indianapolis
Premier Indemnity Assurance Company	San Diego
Royal Indemnity Company	New York

LIABILITY.

Premiums received in 1911	$1,268,386 67
Premiums received in 1910	816,361 91
Increase	$452,024 76
Losses paid in 1911	$390,930 32
Losses paid in 1910	276,726 85
Increase	$114,203 47

Three new companies were licensed to transact liability business during the year, namely:

American Fidelity Company	Montpelier
Great Eastern Casualty Company	New York
Royal Indemnity Company	New York

FIDELITY AND SURETY.

Premiums received in 1911	$795,967 03
Premiums received in 1910	691,944 41
Increase	$104,022 62
Losses paid in 1911	$173,388 58
Losses paid in 1910	174,598 02
Decrease	$1,209 44

Four new companies were licensed to transact fidelity and surety business during the year, namely:

American Fidelity Company	Montpelier
Equitable Surety Company	St. Louis
Great Eastern Casualty Company	New York
Royal Indemnity Company	New York

PLATE GLASS.

Premiums received in 1911	$158,278 94
Premiums received in 1910	131,536 06
Increase	$26,742 88
Losses paid in 1911	$42,141 36
Losses paid in 1910	32,289 25
Increase	$9,852 11

Two new companies were licensed to transact plate glass insurance during the year, namely:

Great Eastern Casualty Company	New York
Royal Indemnity Company	New York

BOILER AND MACHINERY.

Premiums received in 1911	$52,931 58
Premiums received in 1910	52,039 99
Increase	$891 59
Losses paid in 1911	$1,206 50
Losses paid in 1910	3,774 25
Decrease	$2,567 75

One new company was licensed to transact boiler and machinery insurance during the year, namely:

Royal Indemnity Company	New York

BURGLARY AND THEFT.

Premiums received in 1911	$103,030 69
Premiums received in 1910	80,989 79
Increase	$22,040 90
Losses paid in 1911	$49,937 08
Losses paid in 1910	26,642 28
Increase	$23,294 80

Three new companies were licensed to transact burglary and theft insurance during the year, namely:

American Fidelity Company	Montpelier
Great Eastern Casualty Company	New York
Royal Indemnity Company	New York

TITLE.

Premiums received in 1911	*$839,750 16
Premiums received in 1910	184,469 44
Increase	$655,280 72
Losses paid in 1911	$2,125 93
Losses paid in 1910	2,519 17
Decrease	$393 24

WORKMEN'S COLLECTIVE.

Premiums received in 1911	$63,715 26
Premiums received in 1910	52,185 28
Increase	$11,529 98
Losses paid in 1911	$25,387 24
Losses paid in 1910	23,813 98
Increase	$1,573 26

FLY WHEEL.

Premiums received in 1911	$1,370 78
Premiums received in 1910	821 59
Increase	$549 19
Losses paid in 1911	None
Losses paid in 1910	None

SPRINKLER.

Premiums received in 1911	$10,946 96
Premiums received in 1910	10,431 25
Increase	$515 71
Losses paid in 1911	$958 86
Losses paid in 1910	19,499 77
Decrease	$18,540 91

CREDIT INDEMNITY.

Premiums received in 1911	$33,805 00
Premiums received in 1910	29,742 50
Increase	$4,062 50
Losses paid in 1911	$6,739 81
Losses paid in 1910	12,941 67
Decrease	$6,201 86

PHYSICIANS' DEFENSE.

Premiums received in 1911	$3,390 74
Premiums received in 1910	2,427 03
Increase	$963 71
Losses paid in 1911	$124 55
Losses paid in 1910	50 00
Increase	$74 55

One new company was licensed during the year to transact physician's defense, namely:

Medical Protective Company	Fort Wayne

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*Includes $630,225.29 title guarantee fees which were not included the previous year, which accounts for the great increase.

LIVE STOCK.

Premiums received in 1911	$15,068 57
Premiums received in 1910	20,967 86
Decrease	$5,899 29
Losses paid in 1911	$10,930 00
Losses paid in 1910	13,037 00
Decrease	$2,107 00

TEAM AND VEHICLE.

(Including Automobile Property Damage.)

Premiums received in 1911	$62,136 41
Premiums received in 1910	17,206 95
Increase	$44,929 46
Losses paid in 1911	$21,888 74
Losses paid in 1910	2,713 73
Increase	$19,175 01

The increase is due to the fact that in 1910 only seven companies transacted team and vehicle business, while in 1911 sixteen companies transacted this character of business. The above figures refer to miscellaneous companies; the team and vehicle business transacted by fire and marine companies being reported separately in Table No. 8 of this report.

FRATERNAL BENEFIT SOCIETIES.

Since this department issued its last report the legislature of this State passed a bill, which became a law on June 30, 1911, commonly known as the "Mobile Bill."

Under the provisions of this law the Insurance Commissioner was given supervision and control of fraternal benefit societies transacting insurance business in this State, and such societies have in consequence thereof been required to establish their rights to continue transacting business by filing certain papers and statements showing the number of lodges in this State, their membership and financial condition. The summary and synopsis of these statements, as of December 31, 1911, are herewith shown in this the first report to be issued by this Department since the fraternal law governing these societies in California took effect.

During the year and up to date certificates of authority have been issued to the following societies:

American Nobles	Waterloo, Iowa
Ben Hur (Supreme Tribe)	Crawfordsville, Ind.
Brotherhood of American Yeomen	Des Moines, Iowa
Catholic Knights of America	St. Louis, Mo.
Catholic Order of Foresters	Chicago, Ill.
Church Fraternal	Monmouth, Ill.
Court of Honor	Springfield, Ill.
Degree of Honor	Sioux City, Iowa

Equitable Fraternal Union	Neenah, Wis.
Fraternal Aid Association	Lawrence, Kan.
Fraternal Brotherhood	Los Angeles, Cal.
Fraternal Mystic Circle	Philadelphia, Pa.
Fraternal Union of America	Denver, Colo.
Grand Fraternity	Philadelphia, Pa.
Homesteaders	Des Moines, Iowa
Heralds of Liberty	Philadelphia, Pa.
Independent Order of Foresters	Toronto, Canada
Independent Order of Puritans	Pittsburg, Pa.
Knights of Columbus	New Haven, Conn.
Knights of Honor	St. Louis, Mo.
Knights of Pythias (Insurance Department)	Indianapolis, Ind.
Knights and Ladies of Honor	Indianapolis, Ind.
Knights and Ladies of Security	Topeka, Kan.
Knights of the Maccabees of the World	Detroit, Mich.
Knights of the Modern Maccabees	Port Huron, Mich.
Ladies of the Modern Maccabees	Port Huron, Mich.
Ladies of the Maccabees of the World	Port Huron, Mich.
Loyal Americans of the Republic	Chicago, Ill.
Loyal Mystic Legion of America	Hastings, Neb.
Modern Brotherhood of America	Mason City, Iowa
Modern Order of Praetorians	Dallas, Tex.
Modern Woodmen of America	Rock Island, Ill.
Mystic Toilers	Des Moines, Iowa
National Americans	Kansas City, Mo.
National Fraternal Society of the Deaf	Chicago, Ill.
National Union	Toledo, Ohio
National Protective Legion	Waverly, N. Y.
North American Union	Chicago, Ill.
Order of the Golden Seal	Roxbury, N. Y.
Order of Iroquois	Buffalo, N. Y.
Order of Railway Employees	San Francisco, Cal.
Polish National Alliance	Chicago, Ill.
Royal Arcanum	Boston, Mass.
Royal Neighbors of America	Rock Island, Ill.
Royal Highlanders	Aurora, Neb.
United Artisans	Portland, Ore.
Woodmen of the World (Pacific Jurisdiction, Head Camp)	Denver, Colo.
Workmen's Sick and Death Benefit Fund of U. S. A.	New York, N. Y.
Women of Woodcraft	Portland, Ore.

EXAMINATIONS.

The following named societies were examined during the year:

Fraternal Brotherhood	Los Angeles, Cal.
Order of Railway Employees	San Francisco, Cal.
Lincoln Annuity Union (license pending)	San Francisco, Cal.
Americans of California*	Denver, Colo.

MERGERS.

Americans of California----Merged with the Americans, of Springfield, Ill.

Royal Court of Los Angeles----Merged with the Fraternal Brotherhood, of Los Angeles, Cal.

SOCIETIES IN PROCESS OF ORGANIZATION.

United Christian Protective League----------------------Los Angeles, Cal.

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*Examined by the Insurance Commissioner of Colorado by authorization from this Department.

LEGISLATION OF 1911.

Several important bills and amendments in reference to insurance were passed by the legislature of 1911.

Section 591 of the Political Code was amended so as to provide for an increase in the appropriation for the Insurance Commissioner's Special Fund from $25,000.00 to $30,000.00, out of which all expenses of the Department are paid.

Section 594 of the Political Code, relating to the classification of insurance and the capital stock insurance companies are required to have, was amended so as to provide that any written contract or instrument issued by any person, firm or corporation purporting to show title to real property or furnish information relative thereto, which shall in express terms purport to insure or guarantee such title, shall be deemed a policy of title insurance, and that cyclone, tornado, windstorm and lightning insurance be classed as miscellaneous insurance, and provides that a fire insurance company may be licensed to transact said miscellaneous insurance, providing that no company shall do any of said kinds of insurance unless authorized so to do by its charter.

Section 596 of the Political Code, relating to the transaction of surplus line insurance, was amended reducing the license fee required to be paid by a surplus line broker from fifty dollars to twenty-five dollars, the bond required to be filed from twenty thousand to five thousand, the premium tax from four per cent to three per cent, and further provides for the filing of a list of authorized companies, comprising a majority thereof, from whom the insurance effected was not obtainable in the case of each risk written.

Section 597 of the Political Code was amended so as to provide that no certificate of authority shall be issued to any insurance company or corporation hereafter organized or incorporated in this State, whether the same be organized and promoted directly or by means of a holding company or corporation, one of the purposes of which is the organization and promotion of such insurance company or corporation, where the examination shows the expenses of organization and promotion to be in excess of fifteen per cent of the total amount actually paid on its capital stock, exclusive of surplus, and also provides that a company, organized and existing under the laws of any country outside of the United States, shall be deemed to be organized within the meaning of this act in any State wherein such company maintains the deposits required by the law of this State.

Section 607 of the Political Code, providing for charter and similar papers to be filed before a company can engage in business in this

State, was amended so as to provide for the filing of a verified financial statement exhibiting the condition and affairs of such company, and also required a complete list of all officers and persons by whom the business is or may be managed.

Section 611 of the Political Code, relating to the filing, adjusting and publishing of annual statements, was amended to provide that companies may publish either for the period of one week in some daily newspaper of general circulation or four consecutive times in some weekly newspaper of general circulation.

Section 450 of the Civil Code, relating to the provisions to be contained in life insurance policies, was amended.

STATUTES ENACTED.

An act for the regulation and control of fraternal benefit societies, approved May 1, 1911.

An act defining certain classes of contracts for the exchange of indemnity, prescribing regulations therefor, and fixing a license fee, approved May 1, 1911.

An act relating to the liability of employers for injuries or death sustained by their employees, providing for compensation for the accidental injury of their employees, establishing an industrial board, making an appropriation therefor, defining its powers, and providing a review of its awards.

An act to carry into effect the provisions of section 14 of article 13 of the constitution of the State of California, as said constitution was amended November 10, 1910, providing for the separation of state from local taxation, and providing for the taxation of public service and other corporations, banks, and insurance companies for the benefit of the State, all relating to revenue and taxation.

AMENDMENTS.

An act to provide for the organization and management of county fire insurance companies was amended, to provide that no company shall issue policies on property situate within the corporate limits of any city or town in excess of four thousand five hundred dollars on any one risk under one or more policies. No adjoining risks can be taken by such company unless a clear space of at least one hundred and fifty feet intervenes, and such intervening space must continue at not less than one hundred feet during the life of the policy. Nor shall any risk be taken on any building closer than one hundred feet to any business property, provided the amount of the insurance shall not exceed seventy-five per cent of the value of the property, and no additional insurance shall be allowed.

DEPARTMENT COLLECTIONS AND EXPENDITURES.

Under the provisions of section 14 of article 13 of the constitution of the State of California, as said constitution was amended November 8, 1910, taxes are no longer collected from insurance companies by this Department. The amount of business transacted by each company is reported by this Department to the State Board of Equalization, who in turn assess and levy the taxes, which are payable to the State Treasurer direct.

The total amount of fees collected by this Department during the year 1911 was		$53,708 80
EXPENDITURES.		
Salary of Commissioner and deputy	$6,700 00	
Clerical and stenographic salaries	16,644 43	
Office rent	2,300 00	
Telephone	240 49	
Postage	430 00	
Expressage	21 90	
Stationery	466 44	
Telegraph	77 84	
Office furniture	135 77	
Printing	1,061 35	
Traveling expenses	380 15	
General expense	630 13	
		29,088 50
Balance		$24,620 30

Respectfully submitted.

E. C. COOPER,
Insurance Commissioner.

STATEMENT OF MONEYS AND FEES COLLECTED FOR THE YEAR ENDING DECEMBER 31, 1911.

Companies.	Home office.	Amount paid.
Aachen and Munich Fire Insurance Company	Aix-la-Chapelle	$65 00
Ætna Accident and Liability Company	Hartford	57 00
Ætna Insurance Company	Hartford	539 00
Ætna Life Insurance Company	Hartford	139 00
Agricultural Insurance Company	Watertown	311 00
Alliance Insurance Company	Philadelphia	135 00
Alliance Assurance Company, Ltd.	London	40 00
American Insurance Company	Newark	376 00
American Bonding Company	Baltimore	148 00
American Casualty Company	Tacoma	130 20
American Central Insurance Company	St. Louis	302 00
American Credit Indemnity Company	New York	40 00
American and Foreign Marine Insurance Company	New York	30 00
American Druggists Fire Insurance Company	Cincinnati	35 00
American Fidelity Company	Montpelier	111 00
American Live Stock Company	Indianapolis	35 00
American Surety Company	New York	233 60
American Union Fire Insurance Company	Philadelphia	172 00
Atlas Assurance Company, Ltd.	London	419 00
Austin Fire Insurance Company	Dallas	88 00
Bankers' Life Association	Des Moines	142 00
Bankers' Reserve Life	Omaha	80 00
Boston Insurance Company	Boston	101 00
British and Foreign Marine Insurance Company	Liverpool	35 00
Butte County Farmers' Fire	Chico	5 00
Caledonian Insurance Company	Edinburgh	272 00
Caledonian American Insurance Company	New York	42 00
California Insurance Company	San Francisco	401 00
California Title Insurance and Trust	San Francisco	30 00
California National Life Insurance Company	San Diego	140 00
California State Life Insurance Company	Sacramento	65 00
Camden Fire Insurance Association	Camden	225 00
Canton Insurance Office	Hong Kong	39 00
Casualty Company of America	New York	73 00
Central Manufacturers' Mutual	Van Wert	96 30
Citizens' Insurance Company	St. Louis	337 00
City of New York Insurance Company	New York	82 00
City Abstract and Title Insurance Company	San Francisco	30 00
Columbia Life and Trust Company	Portland	38 00
Columbia National Life Insurance Company	Boston	72 00
Colorado National Life	Denver	21 00
Commercial Union Assurance Company, Ltd.	London	353 00
Commercial Union Fire Insurance Company	New York	88 00
Commonwealth Fire Insurance Company	Dallas	83 00
Concordia Fire Insurance Company	Milwaukee	72 00
Connecticut Fire Insurance Company	Hartford	524 00
Connecticut Mutual Life Insurance Company	Hartford	44 00
Continental Insurance Company	New York	359 00
Continental Casualty Company	Hammond	761 00
Detroit Fire and Marine Insurance Company	Detroit	171 00
Dixie Fire Insurance Company	Greensboro	108 00
Dubuque Fire and Marine Insurance Company	Dubuque	133 00
Eastern Fire and Marine Insurance Company	Atlantic City	20 00
Empire City Fire Insurance Company	New York	76 00
Empire State Surety Company	New York	89 20
Employers' Liability Assurance Corporation, Ltd.	London	82 00
Equitable Fire and Marine Insurance Company	Providence	67 00
Equitable Life Assurance Society	New York	249 00
Equitable Surety Company	St. Louis	128 00
Farmers' Mutual Protective Fire Insurance Company	Stockton	1 00
Farmers' Mutual Fire Insurance Company	Woodland	3 00
Farmers' Mutual Fire Insurance Company	Turlock	1 00
Federal Insurance Company	Jersey City	167 00
Federal Casualty Company	Detroit	44 00
Fidelity Accident Insurance Company	Saginaw	47 00
Fidelity and Casualty Company	New York	166 20
Fidelity and Deposit Company	Baltimore	118 40
Franklin Insurance Company	Washington, D.C.	101 80
Franklin Fire Insurance Company	Philadelphia	268 00
Fidelity Mutual Life Insurance Company	Philadelphia	51 00
Fidelity Phenix Fire Insurance Company	New York	203 00
Fire Association of Philadelphia	Philadelphia	366 00
Fireman's Fund Insurance Company	San Francisco	901 00
Firemen's Insurance Company	Newark	174 00
Fitchburg Mutual Fire Insurance Company	Fitchburg	96 30
Fonciere Transports Insurance Company	Paris	38 00
Frankfort Marine, Accident and Plate Glass	Frankfort	186 00

STATEMENT OF MONEYS AND FEES COLLECTED—Continued.

Companies.	Home office.	Amount paid.
General Marine Insurance Company	Dresden	$35 00
German Alliance Insurance Company	New York	259 00
German American Insurance Company	New York	483 00
German Fire Insurance Company	Peoria	85 00
German Fire Insurance Company	Pittsburg	57 00
German Commercial Accident Insurance Company	Philadelphia	188 00
Germania Life Insurance Company	New York	54 00
Girard Fire and Marine Insurance Company	Philadelphia	98 00
Glens Falls Insurance Company	Glens Falls	240 00
Globe and Rutgers Fire Insurance Company	New York	160 00
Golden State Life Insurance Company	Los Angeles	91 00
Great Eastern Casualty Company	New York	140 20
Guarantee Fund Life Association	Omaha	135 00
Hamilton Fire Insurance Company	New York	40 00
Hanover Fire Insurance Company	New York	145 00
Hartford Fire Insurance Company	Hartford	987 00
Hartford Steam Boiler Inspection and Insurance	Hartford	45 00
Hilmar Mutual Fire Insurance Company	Hilmar Colony	1 00
Home Insurance Company	New York	758 00
Home Fire Insurance Company	Salt Lake City	71 00
Home Life Insurance Company	New York	61 00
Humboldt County Fire Insurance Company	Ferndale	1 00
Illinois Surety Company	Chicago	81 20
Indemnity Mutual Marine Assurance	London	40 00
Indiana and Ohio Live Stock Insurance Company	Crawfordsville	80 00
Insurance Company of North America	Philadelphia	415 00
Insurance Company of the State of Pennsylvania	Philadelphia	46 00
International Fire Insurance Company	Fort Worth	61 00
International Life Insurance Company	St. Louis	122 00
Individual Underwriters	New York	50 00
Inter-Ocean Life and Casualty Company	Indianapolis	100 00
Indiana Lumberman's Mutual Insurance Company	Indianapolis	95 00
Jefferson Fire Insurance Company	Philadelphia	121 00
Lake County Farmers' Mutual Fire	Lakeport	1 00
Law Union and Rock Insurance Company	London	262 00
Liverpool and London and Globe Insurance Company	Liverpool	446 00
Lloyds Plate Glass Insurance Company	New York	78 00
London Guarantee and Accident Company, Ltd.	London	42 00
London Assurance Corporation	London	436 00
London and Lancashire Fire Insurance Company	Liverpool	422 00
Los Angeles County Mutual Fire Association	Los Angeles	1 00
Los Angeles Fire Insurance Company	Los Angeles	297 00
Loyal Protective Insurance Company	Boston	43 00
Lumber Insurance Company	New York	40 00
Manhattan Life Insurance Company	New York	40 00
Mannheim Insurance Company	Mannheim	52 00
Marine Insurance Company, Ltd.	London	71 00
Maritime Insurance Company	Liverpool	40 00
Maryland Casualty Company	Baltimore	138 00
Massachusetts Bonding and Insurance Company	Boston	145 40
Massachusetts Mutual Life Insurance Company	Springfield	70 00
Mechanics' and Traders' Insurance Company	New Orleans	105 00
Medical Protective Company	Fort Wayne	98 00
Merchants' Life Association	Burlington	136 00
Mercantile Fire and Marine Insurance Company	Boston	101 00
Merchants' Fire Insurance Company	Denver	74 00
Merchants' Fire Assurance Corporation	New York	77 00
Metropolitan Casualty Company	New York	98 00
Metropolitan Life Insurance Company	New York	343 00
Michigan Commercial Fire Insurance Company	Lansing	123 00
Michigan Fire and Marine Insurance Company	Detroit	219 00
Missouri State Life Insurance Company	St. Louis	41 00
Mutual Benefit Life Insurance Company	Newark	197 00
Mutual Life Insurance Company	New York	242 00
Napa County Farmers' Mutual Fire	Napa	1 00
Nassau Fire Insurance Company	Brooklyn	38 00
National Casualty Company	Detroit	105 00
National Ben Franklin Fire Insurance Company	Pittsburg	130 00
National Fire Insurance Company	Hartford	537 00
National Life Insurance Company	Montpelier	49 00
National Life Association	Des Moines	80 00
National Life Insurance Company of United States of America	Chicago	80 00
National Lumber Insurance Company	Buffalo	31 00
National Surety Company	New York	224 00
National Union Fire Insurance Company	Pittsburg	342 00
New Amsterdam Casualty Company	New York	82 20
New Brunswick Fire Insurance Company	New Brunswick	142 00
New England Mutual Life Insurance Company	Boston	49 00
New Jersey Fidelity and Plate Glass	Newark	59 00
New Jersey Fire Insurance Company	Newark	101 00
New York Life Insurance Company	New York	310 00
New York Reciprocal Underwriters	New York	50 00

STATEMENT OF MONEYS AND FEES COLLECTED—Continued.

Companies.	Home office.	Amount paid.
New York Plate Glass Company	New York	$102 00
New Zealand Insurance Company	Auckland	372 00
Niagara Fire Insurance Company	New York	447 00
North America Accident Insurance Company	Chicago	218 00
North British and Mercantile Insurance Company	London	436 00
North River Insurance Company	New York	172 00
Northern Assurance Company, Ltd.	London	305 00
Northwestern Mutual Fire Association	Seattle	110 90
Northern Insurance Company	New York	115 00
Northwestern National Insurance Company	Milwaukee	288 00
Northwestern National Life Insurance Company	Minneapolis	20 00
Northwestern Mutual Life Insurance Company	Milwaukee	208 00
Occidental Life Insurance Company	Los Angeles	1,041 00
Ocean Marine Insurance Company	London	35 00
Old Colony Insurance Company	Boston	68 00
Orient Insurance Company	Hartford	253 00
Orange County Farmers' Mutual Fire	Santa Ana	1 00
Pacific Coast Casualty Company	San Francisco	397 90
Pacific Mutual Indemnity Company	Los Angeles	90 60
Pacific Mutual Life Insurance Company	Los Angeles	584 00
Pacific Surety Company	San Francisco	304 80
Pacific Title Insurance Company	San Francisco	30 00
Palatine Insurance Company	London	228 00
Patrons' Mutual Fire Association, Tulare County	Tulare	1 00
Pelican Assurance Company	New York	69 00
Penn Mutual Life Insurance Company	Philadelphia	80 00
Pennsylvania Casualty Company	Scranton	59 00
Pennsylvania Fire Insurance Company	Philadelphia	435 00
People's National Fire Insurance Company	Wilmington	127 00
Phœnix Assurance Company, Ltd.	London	273 00
Phœnix Fire Insurance Company	Hartford	517 00
Phœnix Mutual Life Insurance Company	Hartford	53 00
Philadelphia Casualty Company	Philadelphia	35 00
Pittsburg Life and Trust Company	Pittsburg	42 00
Preferred Accident Insurance Company	New York	74 00
Premier Indemnity Company	San Diego	102 00
Providence Washington Insurance Company	Providence	215 00
Provident Life and Trust Company	Philadelphia	170 00
Prudential Casualty Company	Indianapolis	63 00
Prudential Insurance Company of America	Newark	895 00
Prussian National Insurance Company	Stettin	219 00
Queen Insurance Company	New York	354 00
Reliance Insurance Company	Philadelphia	145 00
Reliance Life Insurance Company	Pittsburg	137 00
Reliance Marine Insurance Company	Liverpool	35 00
Rhode Island Insurance Company	Providence	48 00
Ridgely Protective Association	Worcester	43 00
Rochester German Insurance Company	New York	38 00
Royal Insurance Company, Ltd.	Liverpool	507 00
Royal Indemnity Company	New York	162 30
Sacramento County Patrons' and Farmers' Mutual Fire Insurance Company	Sacramento	1 00
San Bernardino County Mutual Fire	Ontario	1 00
San Francisco Life Insurance Company	San Francisco	595 00
Santa Barbara County Farmers' Mutual Fire	Santa Barbara	1 00
Santa Clara County Fire Insurance Company	San Jose	1 00
Scandinavian Mutual Protective Fire	Kingsburg	1 00
Scottish Union and National Insurance Company	Edinburgh	274 00
Scranton Life Insurance Company	Scranton	170 00
Sea Insurance Company	Liverpool	77 00
Security Insurance Company	New Haven	173 00
Security Life Insurance Company of America	Richmond	66 00
Sonoma County Farmers' Mutual Fire	Santa Rosa	1 00
Southwestern Surety and Insurance Company	Durant	305 60
Springfield Fire and Marine Insurance Company	Springfield	375 00
Spring Garden Insurance Company	Philadelphia	95 00
St. Paul Fire and Marine Insurance Company	St. Paul	633 00
Sovereign Fire Insurance Company	Toronto	102 00
Standard Accident Insurance Company	Detroit	174 00
Standard Fire Insurance Company	Hartford	124 00
Standard Marine Insurance Company	Liverpool	35 00
Standard Title Insurance Company	San Francisco	30 00
State Assurance Company, Ltd.	Liverpool	134 00
State Life Insurance Company	Indianapolis	41 00
Subscribers at United States Lloyds	New York	30 00
Sunset Assurance Association	Santa Barbara	81 00
Sun Insurance Company	New Orleans	82 00
Sun Insurance Office	London	270 00
Svea Fire and Life Insurance Company	Gothenburg	274 00
Switzerland General Insurance Company	Zurich	35 00
Teutonia Insurance Company	New Orleans	129 00
Thames and Mersey Marine Insurance Company	Liverpool	35 00

STATEMENT OF MONEYS AND FEES COLLECTED—Continued.

Companies.	Home office.	Amount paid.
Title Guaranty and Trust Company	Los Angeles	$30 00
Title Guaranty and Surety Company	Scranton	254 40
Title Insurance and Guaranty Company	San Francisco	30 00
Travelers' Insurance Company	Hartford	322 00
Title Insurance and Trust Company	Los Angeles	30 00
Union Assurance Society, Ltd.	London	346 00
Union Central Life Insurance Company	Cincinnati	62 40
Union Health and Accident Company	Denver	20 00
Union Insurance Company	Philadelphia	20 00
Union Marine Insurance Company	Liverpool	66 00
Union Mutual Life Insurance Company	Portland, Me.	44 00
United States Casualty Company	New York	103 20
United States Fidelity and Guaranty	Baltimore	257 80
United States Health and Accident	Saginaw	41 00
United Fireman's Insurance Company	Philadelphia	190 20
Ventura County Mutual Fire Insurance Company	Ventura	1 00
Vulcan Fire	Oakland	55 00
Westchester Fire Insurance Company	New York	253 00
West Coast Life Insurance Company	San Francisco	505 60
Western Assurance Company	Toronto	336 00
Western States Life Insurance Company	San Francisco	2,351 70
Washington Fire Insurance Company	Seattle	20 00
Yang-tsze Insurance Company	Shanghai	45 00
Fraternal Societies.	Location.	
American Nobles	Waterloo	10 00
Brotherhood of American Yeomen	Des Moines	10 00
Ben Hur	Crawfordsville	10 00
Catholic Order of Foresters	Chicago	10 00
Catholic Knights of America	St. Louis	10 00
Court of Honor	Springfield	10 00
Equitable Fraternal Union	Neenah	10 00
Fraternal Brotherhood	Los Angeles	14 00
Fraternal Union of America	Denver	10 00
Grand Fraternity	Philadelphia	10 00
Homesteaders	Des Moines	10 00
Independent Order of Foresters	Toronto	10 00
Knights of Columbus	New Haven	10 00
Knights and Ladies of Security	Topeka	10 00
Knights and Ladies of Honor	Indianapolis	10 00
Knights of the Maccabees of the World	Detroit	10 00
Knights of Pythias (Insurance Department)	Indianapolis	10 00
Ladies of the Modern Maccabees	Port Huron	10 00
Ladies of the Maccabees of the World	Port Huron	10 00
Modern Brotherhood of America	Mason City	10 00
Modern Woodmen of America	Rock Island	10 00
Order of Railway Employees	San Francisco	58 00
Royal Neighbors of America	Rock Island	10 00
Royal Highlanders	Aurora	10 00
Royal Arcanum	Boston	10 00
Woodmen of the World	Denver	10 00
Workmen's Sick and Death Benefit Fund of United States of America	New York	10 00
Surplus Line Brokers.		
Ahpel, H. C.	San Francisco	19 11
Archer, Allan T.	Los Angeles	25 00
Becker, P. A.	San Francisco	162 15
Bender, Albert M.	San Francisco	127 26
Birlem, F. W.	San Francisco	1,330 37
Clark, J. E.	San Francisco	2,480 05
Coleman, Clarence	San Francisco	25 00
Dahms, Edwin J., Jr.	San Francisco	84 45
Davis, Bert L.	San Francisco	25 00
Devine, Geo. E.	San Francisco	200 99
Duncan, David	San Francisco	74 32
Foster, George W.	San Francisco	26 38
Foster, Robert D.	San Francisco	25 00
Harrison, C. B.	San Francisco	147 26
Horton, N. T.	Los Angeles	25 99
Johns, R. G.	Los Angeles	376 35
Macdonald, Wm.	San Francisco	349 95
Manheim, H. S.	San Francisco	138 48
Pierce, D. W.	Los Angeles	48 25
Rosenthal, Louis	San Francisco	816 02
Rule, O. Rey	Los Angeles	668 74
Sloan, J. R.	San Francisco	107 70
Thornton, A. C.	San Francisco	278 49
Ward, R. C.	San Francisco	375 33
Wayman, Willard O.	San Francisco	518 22
Williams, F. J.	San Francisco	52 24
Williamson, Charles H.	San Francisco	25 00

STATEMENT OF MONEYS AND FEES COLLECTED—Continued.

	Amount paid.
Miscellaneous.	
Allen, J. M.	$2 00
Barendt, A. H.	2 00
Barney, C. R.	2 00
Bartlett, Louis	2 00
Belcher, E. A.	2 00
Burnett, John M.	8 00
Burroughs, H. D.	4 00
Comte, A. Jr.	2 00
Conghlin, Geo.	2 00
Cushing & Cushing	4 00
De Forrest, J. G.	2 00
De Levaga & Magee	2 00
De Martini, W. J.	2 00
Dougherty, Geo. J.	2 00
Elkins, Luther	2 00
Hayden, R. N.	2 00
Heller, Powers & Ehrman	2 00
Hennessey, John T.	2 00
Hickey, Thos.	2 00
Hilborn, Louis A.	2 00
Kahn, E. E.	1 40
Langhorne, J. P.	2 00
Marks, E. J.	1 30
Maxey, John D.	2 00
McCue, James F.	4 00
Miller, H. F.	2 20
Molkenbuhr, S. W.	2 00
Myers, Jacob	2 00
Myrick & Deering	2 00
O'Donnell, J. E.	4 00
Reed, Black & Reed	2 00
Reiss, M.	5 00
Ryan, Pierce H.	2 00
Snell, James	4 00
Soto, A. J.	2 00
Strong, Chas. J.	1 20
Union Trust Company	2 00
Wieler, A. B.	1 20
Total	$53,708 80

I certify the foregoing to be a full, true and correct statement of the receipts of the Insurance Department of the State of California for the year nineteen hundred and eleven, as shown by the records of this office.

E. C. COOPER,
Insurance Commissioner.

Subscribed and sworn to before me this 24th day of June, 1912.

H. F. RISBROUGH,
[SEAL.] Deputy Insurance Commissioner.

SUMMARY OF INSURANCE BUSINESS

Transacted During the Year Ending

December 31, 1911

AS SHOWN BY REPORTS OF COMPANIES

TABLE No. 1.

Showing the Fire and Marine insurance business of California Companies for the year 1911—California business.

FIRE.

Name of company.	Location.	Amount written.	Premiums received.	Net losses paid.	Net losses incurred.	Percentages of premiums.		In force December 31st.	
						Losses paid.	Losses incurred.	Risks.	Premiums.
California Insurance Co.	San Francisco	$16,018,542 00	$280,435 19	$68,668 15	$73,316 17	24.4	26.1	$19,782,899 00	$346,337 46
Fireman's Fund Insurance Co.	San Francisco	17,603,268 00	566,373 60	178,679 83	169,617 99	31.5	29.7	46,251,430 00	817,770 00
Los Angeles Fire Insurance Co.	Los Angeles	1,429,232 00	21,009 85	12,596 21	8,527 58	59.9	40.5	1,644,893 00	25,212 39
Totals		$35,051,042 00	$867,818 64	$259,944 19	$251,461 74			$67,679,222 00	$1,189,319 85

MARINE.

Name of company.	Location.	Amount written.	Premiums received.	Net losses paid.	Net losses incurred.	Losses paid.	Losses incurred.	Risks.	Premiums.
Fireman's Fund Insurance Co.	San Francisco	$82,474,412 00	$479,534 03	$255,283 63	$214,693 63	53.2	44.7	$11,033,316 00	$303,031 95

TABLE No. 2.

Showing the business of California County Mutual Fire Insurance Companies for the year 1911—California business.

Name of company.	Location.	Amount written.	Premiums and assessments received.	Losses paid.
Butte County Farmers' Mutual Fire Insurance Company	Chico	$130,650 00	$2,446 86	$2,026 00
Farmers' Mutual Fire Insurance Company	Turlock	250,122 00	1,071 95	----------
Farmers' Mutual Fire Insurance Company of Yolo County	Woodland	183,647 88	2,888 38	2 30
Farmers' Mutual Protective Fire Insurance Company of San Joaquin County	Stockton	688,374 00	3,011 39	1,362 00
Hilmar Mutual Fire Insurance Company	Hilmar Colony	156,051 00	1,880 27	958 00
Humboldt County Fire Insurance Association	Ferndale	263,117 00	1,796 28	709 25
Lake County Farmers' Mutual Fire Insurance Company	Lakeport	49,477 00	1,835 45	1,815 00
Los Angeles County Mutual Fire Association	Los Angeles	1,652,925 00	14,412 72	6,031 55
Napa County Farmers' Mutual Fire Insurance Company	Napa	140,925 00	854 14	----------
Orange County Farmers' Mutual Insurance Company	Santa Ana	925,225 00	2,537 35	1,084 50
Patrons Mutual Fire Association	Tulare	73,941 00	514 13	120 00
Sacramento County Patrons and Farmers' Mutual Fire Insurance Company	Sacramento	259,202 00	1,599 30	260 00
San Bernardino County Mutual Fire Insurance Company	Ontario	1,035,915 00	6,071 34	3,608 14
Santa Barbara County Farmers' Mutual Fire Association	Santa Barbara	43,598 00	403 62	----------
Santa Clara County Fire Insurance Company	San Jose	256,871 00	4,143 89	561 75
Scandinavian Mutual Protective Fire Insurance Association	Kingsburg	1,024,746 00	6,533 22	3,627 60
Sonoma County Farmers' Mutual Fire Insurance Company	Santa Rosa	1,029,223 00	7,315 26	4,276 85
Ventura County Mutual Fire Insurance Company	Ventura	641,670 00	6,787 05	5,411 75
Totals		$8,785,679 88	$66,103 20	$31,854 69

TABLE No. 3.

Showing the Fire Insurance business of Stock Companies of other States for the year 1911—California business.

Name of company.	Location.	Amount written.	Premiums received.	Net losses paid.	Net losses incurred.	Percentage of premiums.		In force December 31st.	
						Losses paid.	Losses incurred.	Risks.	Premiums.
Ætna	Hartford	$35,488,210 00	$586,413 65	$114,699 87	$127,081 31	19.6	21.6	$63,719,814 00	$945,252 57
Agricultural	Watertown	8,946,000 00	153,083 65	36,273 23	39,967 44	23.7	26.1		
Alliance Fire	Philadelphia	4,359,909 00	73,575 71	16,406 90	16,306 52	22.3	22.2	6,325,863 00	98,635 69
American	Newark	8,957,042 00	147,596 06	47,517 73	47,450 69	32.2	32.1	16,976,351 00	240,333 79
American Central	St. Louis	7,490,873 00	125,634 78	38,960 10	39,465 26	31.1	31.4	8,989,047 00	140,761 74
American Druggists	Cincinnati	274,200 00	4,285 65	8 29	8 20			274,200 00	4,285 65
American Union Fire	Philadelphia	2,430,878 00	44,576 37	4,561 93	4,410 13	10.2	09.8	2,430,878 00	44,576 37
Austin Fire	Dallas	1,726,304 00	32,714 88	11,230 82	12,486 82	34.3	38.1	2,233,126 00	42,638 09
Caledonian American	New York	402,085 00	5,153 17	3,529 11	3,679 11	68.5	71.0	838,536 00	9,727 51
Camden Fire	Camden	5,576,053 00	79,071 98	35,755 29	32,930 29	45.2	41.7	6,351,616 00	95,888 72
Citizens'	St. Louis	4,233,095 00	78,808 87	32,697 36	40,591 98	41.5	51.5	6,182,306 00	118,189 00
City of New York	New York	2,304,806 00	35,011 30	1,357 19	1,436 19	03.9	04.1	1,675,071 00	27,884 49
Commercial Union Fire	New York	1,417,605 00	21,001 92	6,198 34	7,006 34	29.5	33.3	1,783,467 00	26,752 00
Commonwealth Fire	Dallas	1,726,304 00	32,761 58	11,230 82	12,486 82	34.3	38.1	2,233,126 00	42,638 09
Concordia	Milwaukee	4,432,426 00	84,725 19	26,485 18	27,958 76	31.3	33.1	7,197,698 00	123,578 33
Connecticut Fire	Hartford	16,028,434 00	268,352 95	68,750 74	61,688 44	25.6	22.9	22,439,407 00	375,694 13
Continental	New York	27,858,184 00	394,478 98	131,600 06	123,557 67	33.4	31.3	55,213,749 00	784,890 94
Detroit Fire and Marine	Detroit	418,396 00	7,185 63	170 10	580 10	02.4	08.0	418,395 00	7,185 63
Dixie Fire	Greensboro	3,137,530 00	64,053 67	29,314 42	28,330 42	45.8	44.2	5,240,372 00	92,482 43
Dubuque Fire and Marine	Dubuque	3,340,637 00	59,767 07	19,294 38	22,838 92	32.3	38.2	6,038,203 00	111,256 50
Eastern Fire*	Atlantic City			2,861 82	2,861 82				
Empire City Fire	New York	1,895,669 00	35,811 56	1,229 71	2,679 72	03.4	07.4	2,494,270 00	47,354 82
Equitable Fire and Marine	Providence	2,424,696 00	43,769 33	11,597 05	9,766 56	26.5	22.3		
Franklin Fire	Wash'ton, D.C.	159,225 00	1,885 36					157,975 00	1,876 86
Fidelity Phenix	New York	9,926,691 00	140,667 55	43,539 36	48,337 11	30.9	34.3	14,952,271 00	246,110 63
Fire Association of Philadelphia	Philadelphia	10,828,279 00	188,933 28	56,259 12	61,911 57	29.8	32.7	17,238,285 00	238,507 80
Firemen's	Newark	6,041,254 00	120,356 03	47,172 18	47,151 81	39.2	39.1	7,762,829 00	149,798 29
Franklin Fire	Philadelphia	5,404,094 00	92,967 10	43,221 52	45,732 74	46.5	49.2	6,674,056 00	114,814 37
German Alliance	New York	1,729,757 00	28,772 16	10,582 09	12,372 47	36.8	43.0	2,566,959 00	38,266 97
German American	New York	28,150,822 00	453,078 67	158,245 38	172,303 60	34.9	38.0	41,455,819 00	602,594 63
German Fire	Peoria	1,505,426 00	31,243 53	15,191 75	15,191 75	48.6	48.6	3,010,852 00	62,487 06
German Fire	Pittsburg	2,788,125 00	54,291 13	16,220 23	15,713 88	29.9	28.9	4,029,612 00	69,557 56
Girard Fire and Marine	Philadelphia	3,820,049 00	63,126 94	16,849 77	16,227 11	26.7	25.7	3,990,162 00	66,178 27
Glens Falls	New York	6,558,124 00	105,922 11	34,834 26	29,813 83	32.9	28.1	7,213,936 00	116,514 32
Globe and Rutgers	New York	10,891,497 00	174,884 63	40,979 50	45,424 03	23.4	25.9	10,801,497 00	174,884 63
Hamilton Fire	New York	344,447 00	5,783 22	512 74	2,392 74	08.9	41.3	344,447 00	5,783 22
Hanover Fire	New York	4,909,497 00	80,178 89	24,165 47	28,016 54	30.1	34.9	9,120,705 00	128,958 51
Hartford Fire	Hartford	53,302,901 00	838,256 68	307,306 37	272,186 90	37.7	33.3	76,701,259 00	1,247,080 00
Home	New York	54,115,766 00	939,099 47	252,784 90	265,494 61	27.0	28.3	97,944,667 00	1,601,012 00
Home Fire	Salt Lake City	890,166 00	16,109 34	5,821 59	6,364 68	36.1	39.5	1,269,746 00	19,772 10

Insurance Co. of North America	Philadelphia	16,947,321 00	296,641 21	66,892 49	67,328 97	22.5	22.6	24,953,247 00	401,654 06
Insurance Company of State of Pennsylvania	Philadelphia	395,053 00	8,018 53	7,040 39	3,361 35	87.8	41.9	395,053 00	8,018 53
International Fire	Fort Worth	843,945 00	17,675 92	11,405 63	12,040 29	64.5	68.1	843,945 00	17,675 92
Jefferson	Philadelphia	3,976,793 00	78,545 08	15,901 97	16,582 04	20.2	21.1	3,976,793 00	78,545 08
Lumber	New York	559,319 00	10,629 74	770 79	520 79	07.3	04.9	607,081 00	11,643 22
Mechanics' and Traders'	New Orleans	3,114,082 00	56,162 70	18,217 09	13,904 24	32.4	24.7	2,093,196 00	37,309 62
Mercantile Fire and Marine	Boston	2,160,457 00	34,030 80	8,570 83	8,962 26	25.2	26.3	3,024,637 00	45,823 82
Merchants' Fire	Denver	552,913 00	11,773 46	2,892 99	3,793 20	24.6	32.2	658,503 00	13,141 13
Merchants' Fire	New York	2,083,039 00	41,776 25	1,539 41	1,431 31	03.7	03.4	2,490,500 00	41,776 25
Michigan Commercial	Lansing	2,582,164 00	46,959 66	13,072 72	16,711 25	27.8	35.5	2,472,029 00	44,961 23
Michigan Fire and Marine	Detroit	4,147,445 00	66,792 77	13,233 49	13,338 51	19.8	19.9	9,635,551 00	107,107 39
Nassau Fire	Brooklyn	576,528 00	12,058 65	2,585 66	2,594 12	21.4	21.6	1,718,038 00	39,517 11
National Ben Franklin	Pittsburg	694,816 00	13,181 98					694,816 00	13,162 28
National Fire	Hartford	31,414,267 00	523,414 36	100,933 67	106,389 53	19.3	20.3	22,166,243 00	421,512 15
National Lumber	New York	594,876 00	12,149 72	23 14	42 75	00.2	00.3	594,876 00	12,149 72
National Union Fire	Pittsburg	25,885,987 00	423,413 96	100,078 17	107,392 48	23.6	25.3	25,744,501 00	443,402 30
New Brunswick	New Brunswick	3,487,485 00	71,232 96	9,343 35	9,264 35	13.1	13.0	5,095,362 00	100,723 47
New Jersey Fire	Newark	498,935 00	8,337 89	1,011 77	1,011 77	12.1	12.1	498,935 00	8,337 89
Niagara Fire	New York	14,242,585 00	260,266 37	83,018 17	85,257 00	31.9	32.7	23,445,726 00	384,875 47
North River	New York	6,390,301 00	117,508 46	20,009 07	19,577 07	17.0	16.6	10,253,329 00	191,448 65
Northern Insurance Company	New York	480,040 00	7,890 71	98 80	598 80	01.2	07.5	480,040 00	7,890 71
Northwestern National Fire	Milwaukee	12,268,101 00	155,213 14	36,430 47	42,177 52	23.5	27.1	24,498,041 00	303,924 97
Orient	Hartford	5,708,364 00	87,542 80	28,067 87	25,087 87	32.1	28.6	7,694,000 00	105,147 84
Pelican Assurance	New York	1,934,733 00	32,294 75	8,649 86	7,804 42	26.8	24.1	2,176,574 00	36,331 59
Pennsylvania Fire	Philadelphia	11,506,250 00	197,919 05	71,395 32	77,754 12	36.1	39.2	18,691,447 00	302,015 86
People's National Fire	Wilmington	3,883,881 00	41,243 53	14,906 63	15,986 83	36.1	38.7	7,666,237 00	103,869 64
Phoenix	Hartford	19,441,500 00	330,809 76	116,935 73	119,619 10	35.4	36.1	28,877,037 00	440,076 78
Providence Washington	Providence	6,239,545 00	103,731 71	33,906 64	37,250 08	32.7	35.9	10,202,162 00	148,878 20
Queen	New York	22,340,311 00	372,899 07	105,619 27	114,553 38	28.3	30.7	35,324,337 00	525,712 47
Reliance Fire	Philadelphia	3,156,873 00	55,582 42	24,263 76	28,750 76	43.7	51.7	3,898,738 00	73,646 70
Rhode Island Fire	Providence	639,730 00	6,052 78	5,783 34	5,346 96	95.5	88.3	639,730 00	6,052 78
Rochester German†	New York								
Security Fire	New Haven	6,427,925 00	108,555 15	18,940 60	20,222 51	16.5	18.6	7,085,418 00	118,314 41
Springfield Fire and Marine	Springfield	21,765,211 00	375,065 00	106,645 22	117,934 26	28.4	31.4	36,818,721 00	572,963 05
Spring Garden	Philadelphia	517,602 00	10,397 59	766 87	5,453 86	07.3	52.4	517,602 00	10,397 59
St. Paul Fire and Marine	St. Paul	8,293,859 00	132,458 94	40,600 37	39,751 64	30.6	30.0	12,685,851 00	168,698 00
Standard Fire	Hartford	388,409 00	5,362 46	500 00	537 50	09.6	10.0	385,409 00	5,295 86
Sun	New Orleans	2,213,785 00	37,780 39	4,853 62	6,058 47	12.8	16.0	3,023,250 00	43,003 32
Teutonia	New Orleans	2,266,013 00	40,070 87	8,839 25	8,894 80	22.0	22.1	3,823,109 00	58,216 73
Union*	Philadelphia								
United Firemen's	Philadelphia	1,597,604 00	31,848 01	2,678 90	2,938 09	08.4	08.9	1,597,604 00	31,848 01
Washington Fire*	Seattle			4,710 59	4,710 59				
Westchester Fire	New York	6,145,257 00	126,540 15	57,854 70	59,852 53	45.8	47.3	6,146,257 00	126,540 15
Totals		$604,448,670 00	$10,080,218 79	$2,894,405 28	$2,980,992 25			$879,387,451 00	$13,910,033 14

*All business in California reinsured during year. †Merged with German-American.

NOTE.—Fire business includes tornado, lightning and windstorm.

TABLE No. 4.

Showing the Fire Insurance business of Foreign Stock Companies for the year 1911—California business.

Name of company.	Location.	Amount written.	Premiums received.	Net losses paid.	Net losses incurred.	Percentage of premiums.		In force December 31st.	
						Losses paid.	Losses incurred.	Risks.	Premiums.
Aachen and Munich Fire	Aix-la-Chapelle	$284,951 00	$6,939 42	$3,481 30	$3,471 30	50.2	50.0	$952,294 00	$15,071 46
Atlas Assurance	London	13,248,738 00	213,977 08	77,556 48	72,025 92	36.2	33.1	20,468,936 00	279,751 06
Caledonian	Edinburgh	6,990,817 00	134,892 15	50,029 33	52,949 41	37.1	39.2	12,408,437 00	192,878 46
Commercial Union Assurance	London	11,238,902 00	173,380 90	64,043 23	67,468 43	36.9	38.9	12,648,708 00	195,060 97
Law Union and Rock	London	5,165,105 00	87,080 89	29,443 22	28,626 22	33.8	32.8	8,000,705 00	119,144 00
Liverpool and London and Globe	Liverpool	48,127,453 00	662,374 95	154,745 05	157,939 45	23.4	23.8	63,278,749 00	995,480 45
London Assurance Corporation	London	17,598,192 00	314,022 67	79,942 32	78,971 32	25.5	25.1	30,725,922 00	501,366 49
London and Lancashire Fire	Liverpool	15,516,075 00	242,565 07	81,482 06	70,382 06	33.6	29.0	23,206,165 00	338,258 10
New Zealand	Auckland	18,024,769 00	318,849 54	75,364 32	83,315 32	23.6	26.1	31,045,871 00	489,149 66
North British and Mercantile	London	26,781,375 00	384,889 18	80,726 17	84,440 55	20.9	21.9	33,018,764 00	461,470 51
Northern Assurance	London	21,758,379 00	388,122 06	113,345 79	120,880 19	29.2	31.1	32,069,910 00	467,963 76
Palatine	London	6,058,176 00	103,015 42	42,057 86	41,302 22	40.8	40.0	6,658,440 00	104,091 15
Phœnix Assurance	London	16,481,079 00	278,432 01	97,955 86	97,701 99	35.2	35.0	18,541,214 00	313,226 00
Prussian National	Stettin	10,431,921 00	168,506 86	56,047 61	62,826 44	33.3	37.2	15,546,068 00	207,103 00
Royal	Liverpool	44,019,074 00	748,209 88	220,125 17	225,064 43	29.4	30.0	73,715,007 00	1,150,159 34
Scottish Union and National	Edinburgh	9,991,331 00	160,032 93	24,442 95	35,194 76	15.3	21.9	15,612,909 00	234,169 97
Sovereign Fire	Toronto	495,710 00	9,904 37	2,782 78	3,782 78	28.1	38.2	804,790 00	13,303 16
State Assurance Company, Ltd.	Liverpool	1,011,612 00	12,368 61	1,453 74	1,410 12	11.7	11.4	1,477,982 00	20,228 48
Sun Insurance Office	London	15,829,785 00	254,959 54	41,756 75	56,788 20	16.4	22.3	45,851,756 00	478,692 34
Svea Fire and Life	Gothenburg	5,432,749 00	103,240 49	37,998 54	39,584 09	36.8	38.3	----------	----------
Union Assurance Society, Ltd.	London	15,189,675 00	237,301 90	64,589 26	70,806 91	27.2	29.8	18,499,946 00	289,402 90
Western Assurance	Toronto	7,705,482 00	123,747 92	39,935 35	42,702 45	32.3	34.5	10,679,836 00	150,551 39
Totals		$317,381,350 00	$5,126,813 84	$1,439,305 14	$1,497,634 56			$475,212,409 00	$7,016,522 65

NOTE.—Fire business includes tornado, lightning and windstorm.

TABLE No. 5.

Showing the Fire Insurance business of Mutual Fire Insurance Companies of other States for the year 1911—California business.

Name of company.	Location.	Amount written.	Premiums or assessments received.	Net losses paid.	Net losses incurred.	Percentage of premiums.		In force December 31st.	
						Losses paid.	Losses incurred.	Risks.	Premiums.
Central Manufacturers' Mutual Fire Insurance Company	Van Wert	$55,300	$895 75	----------	----------	------	------	$55,300	$895 75
Fitchburg Mutual Fire Insurance Company	Fitchburg	71,850	1,189 92	$293 37	$293 37	24.6	24.6	71,850	1,189 92
Indiana Lumberman's Mutual Insurance Company	Indianapolis	270,500	5,060 83	717 99	717 99	14.1	14.1	270,950	4,848 36
Northwestern Mutual Fire Insurance Company	Seattle	1,148,758	27,792 33	9,553 22	9,553 22	34.4	34.4	----------	----------
Totals		$1,546,408	$34,938 83	$10,564 58	$10,564 58			$398,100	$6,934 03

TABLE No. 6.

Showing the business of Marine Insurance of companies of other States and Foreign Countries for the year 1911—California business.

Name of company.	Location.	Amount written.	Premiums received.	Net losses paid.	Net losses incurred.	Percentage of premiums.		In force December 31st.	
						Losses paid.	Losses incurred.	Risks.	Premiums.
Ætna Insurance Company	Hartford	$7,852,741	$135,397 02	$20,574 55	$25,798 40	15.2	19.0	$3,440,120	$109,488 33
Alliance Assurance Company	London	1,882,382	22,426 73	2,738 57	2,738 57	12.2	12.2	413,392	5,737 63
Alliance Insurance Company	Philadelphia	2,485,681	40,166 42	36,570 44	38,057 47	91.1	94.7	524,350	28,068 28
American and Foreign Marine Insurance Company	New York	13,086,433	12,664 75	1,832 37	1,832 37	14.4	14.4	108,424	143 44
Boston Insurance Company	Boston	3,142,748	80,969 24	46,774 20	49,704 20	57.7	61.3	2,026,866	69,248 26
British and Foreign Marine Insurance Company	Liverpool	32,507,235	95,216 50	35,945 83	35,945 83	37.7	37.7	1,565,024	17,253 57
Canton Insurance Office, Ltd.	Hongkong	19,059,350	145,383 63	138,477 39		95.2		1,307,295	62,733 97
Commercial Union Assurance Company, Ltd.	London	52,599,800	16,538 26	14,970 00		90.5		845,883	7,308 38
Federal Insurance Company	Jersey City	2,065,884	5,393 99	29 10		00.9		83,164	3,402 00
La Fonciere Transports Insurance Company	Paris	9,771,564	41,385 05	28,715 15	7,344 50	69.4	17.7	1,097,481	16,051 65
General Marine Insurance Company	Dresden	3,971,481	17,837 47	702 04		3.9		180,750	2,187 82
Hartford Fire Insurance Company	Hartford	1,601,095	36,249 83	17,932 74	25,271 45	49.3	69.7		
Home Insurance Company	New York	1,067,341	3,201 29					69,600	1,266 00
Indemnity Mutual Marine Assurance, Ltd.	London	1,035,408	18,731 10	10,642 03	666 67	56.8	03.5	257,090	6,123 53
Insurance Company of North America	Philadelphia	14,948,161	165,430 89	128,142 11	124,687 16	77.4	75.3	2,326,502	86,906 17
London Assurance Corporation	London	12,813,203	43,243 67	16,377 88	18,877 88	37.8	43.6	1,058,317	22,233 75
Mannheim Insurance Company	Mannheim	24,576,030	77,299 74	49,730 83	60,979 26	64.3	77.8	2,540,722	36,412 88
Marine Insurance Company	London	570,342	12,155 22	*4,824 33	4,763 11		39.18	342,883	7,043 54
Maritime Insurance Company	Liverpool	2,480,821	47,772 98	45,340 65		94.8		628,005	30,613 78
Ocean Marine Insurance Company, Ltd.	London	4,726,104	24,889 26	3,085 13	8,948 68	12.3	35.9	713,048	14,329 50
Old Colony Insurance Company	Boston	137,043	4,315 02	1,686 67	1,831 92	39.0	42.4	154,385	3,885 25
Orient Insurance Company	Hartford	625,545	9,840 48	1,375 84	1,375 84	13.9	13.9	607,500	9,283 90
Providence Washington Insurance Company	Providence	3,337,690	50,719 55	49,053 97	50,969 37	96.7	100.4	687,991	33,574 39
Queen Insurance Company	New York	3,055,165	924 65					2,000	40 00
Reliance Marine Insurance Company	Liverpool	455,185	6,885 94	*1,177 50				256,905	2,948 83
Royal Insurance Company	Liverpool	2,162,659	1,172 44					14,040	230 10
St. Paul Fire and Marine Insurance Company	St. Paul	7,487,025	69,126 56	66,851 54	66,851 54	96.7	96.7	1,028,524	26,968 41
Sea Insurance Company, Ltd.	Liverpool	9,104,041	40,558 27	17,195 26	17,195 26	42.4	42.4	361,335	4,720 84
Standard Marine Insurance Company	Liverpool	15,019,744	69,751 23	47,943 86		68.7		1,086,735	18,552 48
Subscribers at U. S. Lloyds	New York	5,137,563	34,580 97	36,898 33	35,923 49	106.7	103.8	232,734	14,682 73
Switzerland General Insurance Company	Zurich	38,925,922	165,114 03	63,134 26	63,134 26	38.2	38.2	2,050,297	64,524 88
Thames and Mersey Marine Insurance Company	Liverpool	8,337,459	35,967 36	36,747 77	36,747 77	102.1	102.1	1,209,243	40,984 45
Union Marine Insurance Company	Liverpool	19,847,266	70,391 66	65,340 71	59,509 98	92.8	84.5	1,401,109	41,037 58
Western Assurance Company	Toronto	944,641	24,944 00	50,119 68	50,119 68	200.9	200.9	228,150	14,184 54
Yang Tsze Insurance Association, Ltd.	Shanghai	5,995,639	61,400 55	46,533 30	52,000 00	75.7	84.3	813,015	39,025 17
Totals		$322,816,391	$1,688,048,75	$1,075,460 37	$841,274 67			$29,662,789	$851,196 03

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* Salvage received in excess of losses paid.

TABLE No. 7.

Showing the business transacted by Interinsurance Associations during the year 1911—California business.

Name of company.	Location.	Amount written.	Premiums received.	Losses paid.
Individual Underwriters	New York	$1,712,500 00	$12,868 .65	------------
New York Reciprocal Underwriters	New York	6,524,300 00	32,244 26	------------
Totals	------------	$8,236,800 00	$45,112 91	------------

TABLE No. 8.

Showing the business of Team and Vehicle Insurance transacted by Fire and Marine Insurance Companies for the year 1911—California business.

Name of company.	Location.	Amount written.	Premiums received.	Losses paid.
Commercial Union Assurance	London	$872,885 00	$19,526 37	$7,742 17
Continental Insurance Company	New York	70,083 00	2,118 65	------------
Federal Insurance Company	Jersey City	816,905 00	18,223 45	4,607 81
Fidelity Phenix Insurance Company	New York	70,082 00	2,118 67	11 00
Home Insurance Company	New York	899,367 00	21,537 10	5,958 87
Marine Insurance Company	London	265,359 00	7,299 43	3,282 48
Queen Insurance Company	New York	285,170 00	7,428 89	334 .93
Royal Insurance Company	Liverpool	834,873 00	17,421 97	1,528 .00
Sea Insurance Company	Liverpool	27,360 00	743 30	------------
Subscribers at U. S. Lloyds	New York	49,500 00	1,106 08	121 00
St. Paul Fire and Marine	St. Paul	2,677,186 00	56,211 66	20,895 33
Totals	------------	$6,868,770 00	$153,735 57	$44,481 59

TABLE No. 9.

Showing new Policies written during the year, Policies Renewed, Amount of Policies in Force on December 31, 1911, of Life Insurance Companies doing business in California—California business.

Name of company.	Location.	New policies written.			Policies renewed.			Policies in force December 31, 1911.		Losses and endowments paid.
		Number.	Amount.	Premiums.	Number.	Amount.	Premiums.	Number.	Amount.	
Ætna Life	Hartford	1,097	$2,642,743	$76,452 13	4,404	$9,569,405	$319,638 36	6,794	$14,445,703	$194,454 46
Bankers' Life	Des Moines	5	14,000	318 39	--------	--------	--------	5	14,000	--------
California National Life	San Diego	260	966,973	32,083 82	--------	--------	--------	259	960,973	--------
California State Life	Sacramento	--------	--------	--------	--------	--------	--------	--------	--------	--------
Colorado National Life*	Denver	--------	--------	--------	--------	--------	--------	--------	--------	--------
Columbia Life and Trust Company	Portland	30	59,299	727 03	1	2,000	783 40	27	48,299	--------
Columbia National Life	Boston	276	686,792	8,478 16	427	1,359,520	45,085 43	703	2,046,312	8,000 00
Connecticut Mutual Life	Hartford	200	455,810	16,015 46	3,279	6,510,443	197,698 41	3,479	6,966,252	188,869 00
Equitable Life	New York	1,673	5,471,377	212,830 63	11,800	33,148,968	1,440,579 65	13,384	38,368,922	827,100 37
Fidelity Mutual Life	Philadelphia	151	492,981	14,945 80	1,850	4,705,767	175,947 09	2,001	5,198,748	82,261 00
Germania Life	New York	238	717,025	24,998 22	2,042	4,291,256	155,442 34	2,280	5,008,281	128,237 29
Golden State Life*	Los Angeles	--------	--------	--------	--------	--------	--------	--------	--------	--------
Home Life	New York	237	536,388	17,242 83	1,607	3,467,497	144,468 13	1,844	4,003,886	69,285 16
International Life	St. Louis	19	28,000	1,194 34	--------	--------	--------	15	22,000	--------
Manhattan Life	New York	76	192,642	3,116 22	930	2,029,300	73,891 95	1,006	2,221,942	61,928 00
Massachusetts Mutual Life	Springfield	161	471,162	14,662 11	1,201	2,529,718	136,920 72	1,362	3,000,880	95,133 00
Metropolitan Life	New York	4,397	4,333,720	128,785 96	15,766	14,420,112	580,014 17	19,338	18,066,962	121,396 00
Missouri State Life	St. Louis	39	158,500	5,420 52	--------	--------	--------	34	145,500	--------
Mutual Life	New York	1,519	4,208,365	177,539 13	18,628	45,241,238	1,485,547 67	20,147	49,449,604	990,105 15
Mutual Benefit Life	Newark	609	2,013,129	90,693 66	4,839	13,926,148	518,680 29	5,448	15,939,277	155,959 00
National Life of United States of America	Chicago	283	809,579	34,103 06	524	1,042,410	40,441 88	786	1,950,463	10,934 00
National Life	Montpelier	171	497,000	15,708 09	--------	--------	147,631 01	2,128	5,063,869	86,832 00
New England Mutual Life	Boston	388	978,781	43,174 74	4,945	10,156,077	332,630 10	5,333	11,134,858	277,283 00
New York Life	New York	2,341	4,749,301	185,131 30	19,365	42,718,579	2,019,620 38	23,751	50,323,991	704,977 67
Northwestern Mutual Life	Milwaukee	1,072	3,762,200	124,624 29	13,028	31,863,453	829,816 04	13,933	35,186,267	328,866 04
Occidental Life	Los Angeles	925	2,113,795	81,442 50	1,541	3,848,402	137,629 00	2,466	5,962,197	13,961 50
Pacific Mutual Life	Los Angeles	2,077	5,587,566	202,467 49	13,905	29,576,930	1,296,717 85	19,085	38,646,314	353,398 22
Penn Mutual Life	Philadelphia	649	2,516,717	108,652 30	6,977	18,249,283	672,398 44	7,517	20,406,475	220,685 08
Pittsburg Life and Trust	Pittsburg	193	917,294	7,381 88	863	1,918,217	75,359 86	1,056	2,835,511	49,441 00
Phœnix Mutual Life	Hartford	345	791,993	26,612 39	1,761	3,570,344	148,360 78	2,106	4,362,337	41,855 79
Provident Life and Trust	Philadelphia	466	1,324,750	36,638 22	2,775	6,066,098	219,428 60	3,241	7,390,848	71,251 00
Prudential	Newark	2,480	3,235,635	107,882 10	6,554	9,339,855	319,052 58	9,097	12,838,643	56,494 76
Reliance Life	Pittsburg	323	717,668	22,145 29	62	196,314	6,588 70	385	913,982	5,000 00
San Francisco Life	San Francisco	370	1,368,000	56,817 17	†610	†1,565,770	†48,609 29	980	2,933,770	2,500 00
Scranton Life	Scranton	396	1,013,500	36,246 67	56	163,000	2,635 95	565	1,690,860	--------
Security Life of America	Richmond	116	200,830	4,473 65	134	329,170	12,187 48	250	530,000	8,976 13
State Life	Indianapolis	108	530,287	7,806 66	676	3,011,917	118,737 30	784	3,542,204	19,500 00
Travelers	Hartford	832	2,016,520	77,404 79	3,297	7,943,597	270,932 00	4,129	9,960,117	100,950 21
Union Central Life	Cincinnati	351	994,700	30,274 15	2,058	5,435,644	247,890 30	2,409	6,430,344	127,307 79

Union Mutual Life	Portland, Me.	88	128,500	5,822 57	2,905	4,196,046	148,671 15	2,993	4,324,546	80,541 19
West Coast Life	San Francisco	1,000	1,727,973	65,149 21	----------	----------	170,192 54	2,465	6,067,179	32,160 22
Western States Life	San Francisco	1,337	3,529,175	131,873 66	249	771,500	33,602 41	1,586	4,300,675	4,000 00
Total (Ordinary)	----------	27,298	$62,960,670	$2,237,336 59	149,059	$323,163,978	$12,573,831 25	185,171	$402,642,991	$5,719,644 03
INDUSTRIAL.										
Metropolitan Life	New York	37,929	6,368,509	83,356 04	161,752	29,363,691	993,158 83	204,676	34,501,616	275,700 96
Prudential	Newark	32,425	4,711,452	114,506 60	40,595	6,131,742	149,029 89	58,076	8,567,136	51,690 14
West Coast Life	San Francisco	19,490	2,736,425	2,783 20	----------	----------	123,771 40	21,310	3,023,352	26,929 18
Totals (Industrial)	----------	89,844	$13,816,386	$200,645 84	202,347	$35,493,433	$1,265,960 12	284,062	$46,092,104	$354,320 28
Grand totals	----------	117,142	$76,777,056	$2,437,982 43	351,406	$358,659,411	$13,839,791 37	469,233	$448,735,095	$6,073,964 31

*Reinsured during the year. †Reinsured business.

TABLE No. 10.

Showing the business of Assessment Life and Accident Insurance for the year 1911—California business.

Name of company.	Location.	Certificates in force December 31, 1910.		Certificates issued during year 1911.		Certificates terminated during year 1911.		Certificates in force December 31, 1911.		Premiums or assessments received.	Losses paid.
		Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.		
LIFE BUSINESS.											
Bankers' Life Association	Des Moines	10,732	$21,464,000	2,003	$4,006,000	772	$1,544,000	11,963	$23,926,000	$270,095 37	$222,000 00
Guarantee Fund Life Association	Omaha			154	308,000	4	8,000	150	300,000	2,562 50	
Merchants' Life Association	Burlington			18	36,000	2	4,000	16	32,000	310 50	
Sunset Assurance Association	Santa Barbara			448	39,400	7	700	441	38,700	1,812 40	294 31
Totals		10,732	$21,464,000	2,623	$4,389,400	785	$1,556,700	12,570	$24,296,700	$274,780 77	$222,294 31

TABLE No. 11.

Showing business of Health Insurance for the year 1911—California business.

Name of company.	Location.	Premiums received.	Losses paid.
Ætna Life	Hartford	$10,682 19	$7,854 00
American Fidelity	Montpelier	63 00	----------
Columbian National Life	Boston	2,184 17	1,839 66
Continental Casualty	Hammond	24,799 91	6,433 81
Empire State Surety	New York	345 34	----------
Employers' Liability	London	4,657 92	2,252 28
Federal Casualty*	Detroit	*	*
Fidelity Accident	Saginaw	----------	----------
Fidelity and Casualty	New York	22,458 37	9,353 62
Fidelity and Deposit	Baltimore	1,990 36	176 63
Frankfort Marine, Accident and Plate Glass*	Frankfort, Ger.	*	*
German Commercial Accident	Philadelphia	1,388 66	----------
Great Eastern Casualty	New York	1,198 74	133 16
Inter-Ocean Life and Casualty*	Indianapolis	*	*
London Guarantee and Accident	London	445 89	28 58
Loyal Protective Insurance Company*	Boston	*	*
Maryland Casualty Company	Baltimore	3,605 33	1,577 32
Metropolitan Casualty Company	New York	390 20	1,210 70
National Casualty Company	Detroit	*	*
New Amsterdam Casualty	New York	846 53	420 79
New Jersey Fidelity and Plate Glass	Newark	39 00	----------
Occidental Life	Los Angeles	39,966 95	21,004 25
Pacific Coast Casualty*	San Francisco	*	*
Pacific Mutual Life	Los Angeles	59,409 91	31,116 92
Pennsylvania Casualty Company	Scranton, Pa.	5,225 43	1,971 08
Philadelphia Casualty Company	Philadelphia	197 55	----------
Preferred Accident*	Detroit	*	*
Premier Indemnity Company	San Diego	120 20	----------
Ridgely Protective Association*	Worcester	*	*
Royal Indemnity	New York	221 06	1 97
Standard Accident	Detroit	10,032 65	2,744 45
Southwestern Surety and Insurance Company	Durant	288 75	----------
Travelers Insurance Company	Hartford	17,197 01	4,839 44
United States Casualty	New York	1,353 93	380 26
United States Health and Accident*	New York	*	*
United States Fidelity and Guaranty	Baltimore	†87 50	----------
Prudential Casualty	Indianapolis	282 76	135 00
Totals	----------	$209.304 31	$93,473 92

* See Accident Table.

† Excess of return premium and reinsurance premium over gross premiums received.

TABLE No. 12.

Showing business of Accident Insurance for the year 1911—California business.

Name of company.	Location.	Premiums received.	Losses paid.
Ætna Life	Hartford	$80,004 76	$31,677 65
American Casualty	Tacoma	8,271 00	2,136 50
American Fidelity	Montpelier	98 93	25 00
Casualty Company of America	New York	513 80	------
Columbia National Life	Boston	5,887 16	4,818 17
Continental Casualty	Hammond	114,266 35	36,430 80
Employers' Liability	London	27,950 91	10,944 23
Empire State Surety	New York	913 31	30 00
Federal Casualty*	Detroit	7,359 05	1,311 10
Fidelity Accident	Saginaw	958 15	310 60
Fidelity and Casualty	New York	69,305 97	25,188 74
Fidelity and Deposit	Baltimore	5,147 09	483 67
Frankfort Marine, Accident and Plate Glass*	Frankfort	9,178 58	4,089 30
German Commercial Accident	Philadelphia	922 43	202 78
Great Eastern Casualty	New York	1,830 61	525 15
Inter-Ocean Life and Casualty*	Indianapolis	794 50	160 56
London Guarantee and Accident	London	6,260 00	2,316 05
Loyal Protective Insurance Company*	Boston	9,646 00	5,192 35
Maryland Casualty	Baltimore	20,740 07	6,734 59
Metropolitan Casualty	New York	6,456 01	5,721 66
National Casualty*	Detroit	34,236 52	11,082 15
New Amsterdam Casualty	New York	4,485 92	2,032 00
New Jersey Fidelity and Plate Glass	Newark	732 10	------
North American Accident	Chicago	60,321 33	32,338 65
Occidental Life	Los Angeles	107,858 14	56,473 41
Pacific Coast Casualty*	San Francisco	18,786 96	5,360 90
Pacific Mutual Life	Los Angeles	254,967 56	91,497 97
Pacific Surety Company	San Francisco	18,584 66	7,311 08
Pennsylvania Casualty	Scranton	12,144 59	8,322 63
Philadelphia Casualty	Philadelphia	638 86	859 91
Preferred Accident*	Detroit	71,010 00	20,234 79
Premier Indemnity	San Diego	1,465 55	87 50
Prudential Casualty	Indianapolis	332 25	39 00
Ridgely Protective Association*	Worcester	9,260 40	3,127 97
Royal Indemnity	New York	2,276 64	100 95
Standard Accident	Detroit	59,076 17	51,603 29
Southwestern Surety and Insurance	Durant	694 25	117 85
Travelers	Hartford	219,918 37	93,357 93
United States Casualty	New York	5,372 89	5,335 37
United States Fidelity and Guaranty	Baltimore	4,032 78	188 38
United States Health and Accident*	New York	6,198 72	1,173 49
Totals	------	$1,268,899 34	$528,944 12

* Includes Health business.

TABLE No. 13.

Showing business of Liability Insurance for the year 1911—California business.

Name of company.	Location.	Premiums received.	Losses paid.
Ætna Life	Hartford	$144,838 42	$65,398 61
American Fidelity	Montpelier	4,626 40	100 00
Casualty Company of America	New York	2,197 82	353 64
Empire State Surety	New York	2,528 78	1,418 50
Employers' Liability	London	117,185 96	21,471 19
Fidelity and Deposit	Baltimore	41,640 08	3,855 10
Fidelity and Casualty	New York	101,322 96	31,644 95
Frankfort Marine, Accident and Plate Glass	Frankfort	74,380 34	47,753 80
London Guarantee and Accident	London	160,919 75	48,006 04
Maryland Casualty	Baltimore	86,412 56	14,399 54
New Amsterdam Casualty	New York	65,242.98	31,759.99
Pacific Coast Casualty	San Francisco	173,122 57	80,329 21
Pacific Surety Company	San Francisco	111,169 79	22,280 96
Philadelphia Casualty	Philadelphia	*1,645 51	8,245 35
Pennsylvania Casualty	Scranton	19,803 64	4,054 90
Prudential Casualty	Indianapolis	1,730 49	103 30
Royal Indemnity	New York	39,612 82	1,679 13
Standard Accident	Detroit	1,922 82	225 00
Southwestern Surety and Insurance Company	Durant	40,981 25	721 38
Travelers Insurance Company	Hartford	592 75	------------
United States Casualty	New York	11,592 76	1,292 19
United States Fidelity and Guaranty	Baltimore	68,207 24	5,837 54
Totals	------------	$1,268,386 67	$390,930 32

* Excess of return premiums and reinsurance premiums over premiums received.

TABLE No. 14.

Showing the business of Plate Glass Insurance for the year 1911—California business.

Name of company.	Location.	Premiums received.	Losses paid.
Ætna Accident and Liability Company	Hartford	$4,561 .46	$1,150 37
Casualty Company of America	New York	2,237 58	319 30
Empire State Surety	New York	*50 27	3 50
Fidelity and Casualty	New York	20,781.79	5,583 48
Fidelity and Deposit	Baltimore	16,118 50	1,406 76
Great Eastern Casualty	New York	1,839 32	399 64
Lloyds Plate Glass	New York	12,262 42	2,953.53
Maryland Casualty	Baltimore	11,390 89	2,920 68
Metropolitan Casualty	New York	10,046 93	4,968 63
New Amsterdam Casualty	New York	5,614 27	1,410 84
New Jersey Fidelity and Plate Glass	Newark	5,564 40	1,581 54
New York Plate Glass	New York	24,081 80	7,784 24
Pacific Coast Casualty	San Francisco	6,764 37	1,201 86
Pacific Surety Company	San Francisco	19,795 14	6,701 38
Philadelphia Casualty	Philadelphia	2 40	------------
Pennsylvania Casualty	Scranton	7,843 66	2,573 49
Prudential Casualty	Indianapolis	1,755 17	181 53
Royal Indemnity Company	New York	3,114 55	582 83
Southwestern Surety and Insurance Company	Durant	1,291 51	59 90
United States Fidelity and Guaranty	Baltimore	3,263 05	357 86
Totals	------------	$158,278 94	$42,141.36

* Premiums on reinsurance in excess of premiums received.

TABLE No. 15.

Showing the Fidelity and Surety business for the year 1911—California business.

Name of company.	Location.	Premiums received.	Losses paid.
American Bonding	Baltimore	$87,273 39	$61,991 04
American Fidelity	Montpelier	374 85	----------
American Surety	New York	50,021 46	917 81
Empire State Surety	New York	30,167 93	20,105 06
Equitable Surety	St. Louis	2,876 16	----------
Employers' Liability	London	2,178 80	700 20
Fidelity and Casualty	New York	3,899 05	270 70
Fidelity and Deposit	Baltimore	94,614 19	9,028 95
Illinois Surety	Chicago	6,042 23	----------
Maryland Casualty	Baltimore	18,935 45	----------
Massachusetts Bonding and Insurance Company	Boston	23,114 37	117 45
National Surety	New York	156,472 59	22,726 71
Pacific Coast Casualty	San Francisco	29,202 25	1,019 80
Pacific Surety	San Francisco	49,746 38	17,566 36
Royal Indemnity	New York	4,219 24	----------
Southwestern Surety and Insurance Company	Durant	8,072 72	----------
Title Guaranty and Surety	Scranton	37,966 02	5,995 24
United States Fidelity and Guaranty	Baltimore	190,789 95	32,949 26
Totals	----------	$795,967 03	$173,388 58

TABLE No. 16.

Showing the business of Boiler and Machinery Insurance for the year 1911—California business.

Name of company.	Location.	Premiums received.	Losses paid.
Casualty Company of America	New York	$1,004 00	----------
Fidelity and Casualty	New York	7,519 63	$949 27
Hartford Steam Boiler Inspection and Insurance	Hartford	38,099 03	250 00
London Guarantee and Accident	London	593 00	----------
Maryland Casualty	Baltimore	4,142 03	----------
Pacific Surety Company	San Francisco	40 44	----------
Royal Indemnity	New York	369 10	7 23
United States Casualty	New York	415 00	----------
United States Fidelity and Guaranty Company	Baltimore	749 35	----------
Totals	----------	$52,931 58	$1,206 50

TABLE No. 17.

Showing the business of Burglary and Theft Insurance for the year 1911—California business.

Name of company.	Location.	Premiums received.	Losses paid.
Ætna Accident and Liability	Hartford	$4,077 81	$802 07
American Bonding Company	Baltimore	6,750 59	4,695 47
American Fidelity	Montpelier	12 50	------------
Casualty Company of America	New York	181 30	------------
Empire State Surety Company	New York	1,937 23	890 73
Employers' Liability	London	3,132 66	1,217 20
Fidelity and Casualty	New York	17,396 98	9,806 48
Fidelity and Deposit	Baltimore	5,382 84	1,615 31
Frankfort Marine, Accident and Plate Glass	Frankfort	2,296 62	4,179 48
Great Eastern Casualty	New York	91 53	------------
London Guarantee and Accident	London	3,639 81	387 00
Maryland Casualty	Baltimore	12,289 81	3,897 02
Massachusetts Bonding and Insurance	Boston	1,279 48	------------
National Surety	New York	13,692 26	3,859 10
New Amsterdam Casualty	New York	4,574 06	4,565 18
New Jersey Fidelity and Plate Glass	Newark	1,780 42	882 70
Pacific Coast Casualty	San Francisco	4,504 74	2,535 90
Pacific Surety Company	San Francisco	3,893 57	6,589 20
Prudential Casualty	Indianapolis	973 09	363 90
Royal Indemnity	New York	2,957 47	5 54
United States Casualty	New York	380 95	------------
United States Fidelity and Guaranty Company	Baltimore	11,804 97	3,644 80
Totals	------------	$103,030 69	$49,937 08

TABLE No. 18.

Showing the business of Title Insurance for the year 1911—California business.

Name of company.	Location.	Amount written.	Premiums received.	Losses paid.
City Abstract and Title Insurance Company	San Francisco	$480,925 00	$6,282 50	------------
California Title Insurance and Trust Company	San Francisco	12,360,857 00	59,113 35	$97 65
Pacific Title Insurance Company	San Francisco	10,032,754 00	56,630 50	------------
Standard Title Insurance Company	San Francisco	3,095,522 00	29,932 02	------------
Title Guarantee and Trust	Los Angeles	------------	*220,425 00	------------
Title Insurance and Guaranty Company	San Francisco	10,965,895 00	49,532 00	855 88
Title Insurance and Trust Company	Los Angeles	2,215,160 00	*417,834 79	1,172 40
Totals	------------	$39,151,113 00	$839,750 16	$2,125 93

* Includes title guarantee fee.

TABLE No. 19.

Showing the business of Team and Vehicle Insurance, including auto property damage, transacted by miscellaneous companies for the year 1911—California business.

Name of company.	Location.	Premiums received.	Losses paid.
Ætna Accident and Liability	Hartford	$12,124 15	$4,648 52
American Fidelity	Montpelier	62 50	----------
Casualty Company of America	New York	43 65	----------
Employers' Liability	London	13,009 08	8,295 69
Fidelity and Casualty	New York	4,736 68	1,945 07
Fidelity and Deposit	Baltimore	2,650 56	113 01
London Guarantee and Accident	London	7,371 83	1,016 26
Maryland Casualty	Baltimore	5,438 85	474 12
Pacific Coast Casualty	San Francisco	3,493 87	789 36
Pacific Surety Company	San Francisco	8,421 09	2,035 44
Philadelphia Casualty	Philadelphia	*218 75	2,250 79
Pennsylvania Casualty	Scranton	623 91	136 61
Prudential Casualty	Indianapolis	159 75	----------
Royal Indemnity Company	New York	2,862 46	168 95
Southwestern Surety and Insurance Company	Durant	1,059 03	2 15
United States Casualty	New York	294 75	12 77
Totals	----------	$62,136 41	$21,888 74

* Excess of return premium and reinsurance premium over gross premiums received.

TABLE No. 20.

Showing the business of Workmen's Collective Insurance for 1911—California business.

Name of company.	Location.	Premiums received.	Losses paid.
Ætna Life	Hartford	----------	$21 00
Employers' Liability	London	$1,461 99	191 55
Fidelity and Casualty	New York	191 67	----------
Fidelity and Deposit	Baltimore	1,700 00	2 50
Frankfort Marine, Accident and Plate Glass	Frankfort	25,953 45	12,440 75
New Amsterdam Casualty	New York	716 23	71 00
Pacific Coast Casualty	San Francisco	30,443 13	12,058 56
Pacific Surety Company	San Francisco	300 00	20 25
Pennsylvania Casualty	Scranton	211 06	255 70
Premier Indemnity Company	San Diego	1,762 73	----------
Royal Indemnity Company	New York	975 00	325 93
Totals	----------	$63,715 26	$25,387 24

TABLE No. 21.

Showing the business of Sprinkler Insurance for the year 1911—California business.

Name of company.	Location.	Amount written.	Premiums received.	Losses paid.
Maryland Casualty	Baltimore	$125,100 00	$9,862 75	$958 86
United States Casualty	New York	131,900 00	1,084 21	----------
Totals	----------	$257,000 00	$10,946 96	$958 86

TABLE No. 22.

Showing the business of Physicians' Defense Insurance for 1911—California business.

Name of company.	Location.	Premiums received.	Losses paid.
Maryland Casualty	Baltimore	$2,159 12	$124 55
Medical Protective	Fort Wayne	480 00	
Pacific Surety	San Francisco	751 62	
Totals		$3,390 74	$124 55

TABLE No. 23.

Showing the business of Credit Indemnity Insurance for the year 1911—California business.

Name of company.	Location.	Amount written.	Premiums received.	Losses paid.
American Credit Indemnity	New York	$464,000 00	$33,805 00	$6,739 81
Totals		$464,000 00	$33,805 00	$6,739 81

TABLE No. 24.

Showing the business of Live Stock Insurance for the year 1911—California business.

Name of company.	Location.	Amount written.	Premiums received.	Losses paid.
American Live Stock	Crawfordsville		$810 38	$1,015 00
Indiana and Ohio Live Stock	Crawfordsville	$190,109 00	14,258 19	9.915 00
Totals		$190,109 00	$15,068 57	$10.930 00

TABLE No. 25.

Showing the business of Fly Wheel Insurance for the year 1911—California business.

Name of company.	Location.	Amount written.	Premiums received.	Losses paid.
Fidelity and Casualty	New York	$75,000 00	$960 88	
Hartford Steam Boiler Inspection and Insurance Company	Hartford	20,000 00	159 90	
Maryland Casualty Company	Baltimore	10,000 00	248 82	
Pacific Surety	San Francisco		1 18	
Totals		$105,000 00	$1,370 78	

TABLE

Recapitulation of Premiums received by Casualty, Fidelity, Surety and Mis

Name of company.	Accident.	Health.	Liability.	Fidelity and surety.	Plate glass.
Ætna Accident and Liability					$4,561 46
Ætna Life	$80,004 76	$10,682 19	$144,838 42		
American Bonding				$87,273 39	
American Casualty	8,271 00				
American Credit Indemnity					
American Fidelity	98 93	63 00	4,626 40	374 85	
American Live Stock					
American Surety				50,021 46	
California Title Insurance and Trust					
Casualty Company of America	513 80		2,197 82		2,237 58
City Abstract and Title					
Columbia National Life	5,887 16	2,184 17			
Continental Casualty	114,266 35	24,799 91			
Empire State Surety	913 31	345 34	2,528 78	30,167 93	*50 27
Employers' Liability	27,950 91	4,657 92	117,185 96	2,178 80	
Equitable Surety				2,876 16	
Federal Casualty	7,359 05				
Fidelity Accident	958 15				
Fidelity and Casualty	69,305 97	22,458 37	101,322 96	3,899 05	20,781 79
Fidelity and Deposit	5,147 09	1,990 36	41,640 08	94,614 19	16,118 50
Frankfort Marine, Accident and Plate Glass	9,178 58		74,380 34		
German Commercial Accident	922 43	1,388 66			
Great Eastern Casualty	1,830 61	1,198 74			1,839 32
Hartford Steam Boiler Inspection and Insurance Company					
Illinois Surety Company				6,042 23	
Indiana and Ohio Live Stock					
Inter-Ocean Life and Casualty	794 50				
Lloyds Plate Glass					12,262 42
Loyal Protective	9,646 00				
London Guarantee and Accident	6,260 00	445 89	160,919 75		
Maryland Casualty	20,740 07	3,605 33	86,412 56	18,935 45	11,390 89
Metropolitan Casualty	6,456 01	390 20			10,046 93
Massachusetts Bonding and Insurance				23,114 37	
Medical Protective					
National Casualty	34,236 52				
National Surety				156,472 59	
New Amsterdam Casualty	4,485 92	846 53	65,242 98		5,614 27
New Jersey Fidelity and Plate Glass	732 10	39 00			5,564 40
New York Plate Glass					24,081 80
North American Accident	60,321 33				
Occidental Life	107,858 14	39,966 95			
Pacific Coast Casualty	18,786 96		173,122 57	29,202 25	6,764 37
Pacific Mutual Indemnity					
Pacific Mutual Life	254,967 56	59,409 91			
Pacific Surety	18,584 66		111,169 79	49,746 38	19,795 14
Pacific Title					
Pennsylvania Casualty	12,144 59	5,225 43	19,803 64		7,843 66
Philadelphia Casualty	638 86	197 55	*1,645 51		2 40
Preferred Accident	71,010 00				
Premier Indemnity	1,465 55	120 20			
Prudential Casualty	332 25	282 76	1,730 49		1,755 17
Ridgley Protective Association	9,260 40				
Royal Indemnity	2,276 64	221 06	39,612 82	4,219 24	3,114 55
Standard Accident	59,076 17	10,032 65	1,922 82		
Standard Title					
Southwestern Surety	694 25	288 75	40,981 25	8,072 72	1,291 51
Title Guaranty and Surety				37,966 02	
Title Guaranty and Trust					
Title Insurance and Guaranty					
Title Insurance and Trust					
Travelers	219,918 37	17,197 01	592 75		
Union Health and Accident					
United States Casualty	5,372 89	1,353 93	11,592 76		
United States Fidelity and Guaranty	4,032 78	*87 50	68,207 24	190,789 95	3,263 05
United States Health and Accident	6,198 72				
Totals	$1,268,899 34	$209,304 31	$1,268,386 67	$795,967 03	$158,278 94

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*Excess of reinsurance and return premiums over gross premiums received. §Credit indemnity. †Live stock. ‡Sprinkler. ‖Physicians' defense.

No. 26.

cellaneous Insurance Companies for the year 1911 — California Business.

Boiler and machinery.	Burglary and theft.	Title.	Workmen's collective.	Team and vehicle (including auto property (damage).	Fly wheel.	All other classes.	Total.
	$4,077 81			$12,124 15			$20,763 42
							235,525 37
	6,750 59						94,023 98
							8,271 00
						§$33,805 00	33,805 00
	12 50			62 50			5,238 18
						†810 38	810 38
							50,021 46
		$59,113 35					59,113 35
$1,004 00	181 30			43 65			6,178 15
		6,282 50					6,282 50
							8,071 33
							139,066 26
	1,937 23						35,842 32
	3,132 66		$1,461 99	13,009 08			169,577 32
							2,876 16
							7,359 05
							958 15
7,519 63	17,396 98		191 67	4,736 68	$960 88		248,573 98
	5,382 84		1,700 00	2,650 56			169,243 62
	2,296 62		25,953 45				111,808 99
							2,311 09
	91 53						4,960 20
38,099 03					159 90		38,258 93
							6,042 23
						†14,258 19	14,258 19
							794 50
							12,262 42
							9,646 00
593 00	3,639 81			7,371 83			179,230 28
4,142 03	12,289 81			5,438 85	248 82	‡12,021 87	175,225 68
							16,893 14
	1,279 48						24,393 85
						‖480 00	480 00
							34,236 52
	13,692 26						170,164 85
	4,574 06		716 23				81,479 99
	1,780 42						8,115 92
							24,081 80
							60,321 33
							147,825 09
	4,504 74		30,443 13	3,496 87			266,320 89
							314,377 47
40 44	3,893 57		300 00	8,421 09	1 18	‖751 62	212,703 87
		56,630 50					56,630 50
			211 06	623 91			45,852 29
				*218 75			*1,025 45
							71,010 00
			1,762 73				3,348 48
	973 09			159 75			5,233 51
							9,260 40
369 10	2,957 47		975 00	2,862 46			56,608 34
							71,031 64
		29,932 02					29,932 02
				1,059 03			52,387 51
							37,966 02
		220,425 00					220,425 00
		49,532 00					49,532 00
		417,834 79					417,834 79
							237,708 13
415 00	380 95			294 75		‡1,084 21	20,494 49
749 35	11,804 97						278,759 84
							6,198 72
$52,931 58	$103,030 69	$839,750 16	$63,715 26	$62,136 41	$1,370 78	$63,211 27	$1,886,982 44

TABLE

Recapitulation of Losses paid by Casualty, Fidelity, Surety and Miscel

Name of company.	Accident.	Health.	Liability.	Fidelity and surety.	Plate glass.
Ætna Accident and Liability					$1,150 37
Ætna Life	$31,677 65	$7,854 00	$65,398 61		
American Bonding				$61,991 04	
American Casualty	2,136 50				
American Credit Indemnity					
American Fidelity	25 00		100 00		
American Live Stock					
American Surety				917 81	
California Title Insurance and Trust					
Casualty Company of America			353 64		319 30
City Abstract and Title					
Columbia National Life	4,818 17	1,839 66			
Continental Casualty	36,430 80	6,433 81			
Empire State Surety	30 00		1,418 50	20,105 06	3 50
Employers' Liability	10,944 23	2,252 28	21,471 19	700 20	
Equitable Surety					
Federal Casualty	1,311 10				
Fidelity Accident	310 60				
Fidelity and Casualty	25,188 74	9,353 62	31,644 95	270 70	5,583 48
Fidelity and Deposit	483 67	176 63	3,855 10	9,028 95	1,406 76
Frankfort Marine, Accident and Plate Glass	4,089 30		47,753 80		
German Commercial Accident	202 78				
Great Eastern Casualty	525 15	133 16			399 64
Hartford Steam Boiler Inspection and Insurance Company					
Illinois Surety Company					
Indiana and Ohio Live Stock					
Inter-Ocean Life and Casualty	160 56				
Lloyds Plate Glass					2,953 53
Loyal Protective	5,192 35				
London Guarantee and Accident	2,316 05	28 58	48,006 04		
Maryland Casualty	6,734 59	1,577 32	14,399 54		2,920 68
Metropolitan Casualty	5,721 66	1,210 70			4,968 63
Massachusetts Bonding and Insurance				117 45	
Medical Protective					
National Casualty	11,082 15				
National Surety				22,726 71	
New Amsterdam Casualty	2,032 00	420 79	31,759 99		1,410 84
New Jersey Fidelity and Plate Glass					1,581 54
New York Plate Glass					7,784 24
North American Accident	32,338 65				
Occidental Life	56,473 41	21,004 25			
Pacific Coast Casualty	5,360 90		80,329 21	1,019 80	1,201 86
Pacific Mutual Indemnity					
Pacific Mutual Life	91,497 97	31,116 92			
Pacific Surety	7,311 08		22,280 96	17,566 36	6,701 38
Pennsylvania Casualty	8,322 63	1,971 08	4,054 90		2,573 49
Philadelphia Casualty	859 91		8,245 35		
Preferred Accident	20,234 79				
Premier Indemnity	87 50				
Prudential Casualty	39 00	135 00	103 30		181 53
Ridgley Protective Association	3,127 97				
Royal Indemnity	100 95	1 97	1,679 13		582 83
Standard Accident	51,603 29	2,744 45	225 00		
Standard Title					
Southwestern Surety	117 85		721 38		59 90
Title Guaranty and Surety				5,995 24	
Title Guaranty and Trust					
Title Insurance Guaranty					
Title Insurance and Trust					
Travelers	93,357 93	4,839 44			
Union Health and Accident					
United States Casualty	5,335 37	380 26	1,292 19		
United States Fidelity and Guaranty	188 38		5,837 54	32,949 26	357 86
United States Health and Accident	1,173 49				
Totals	$528,944 12	$93,473 92	$390,930 32	$173,388 58	$42,141 36

§Credit indemnity. †Live stock. ‡Sprinkler. ‖Physicians' defense.

No. 27.

laneous Insurance Companies for the year 1911 — California Business.

Boiler and machinery.	Burglary and theft.	Title.	Workmen's collective.	Team and vehicle (including auto property damage).	Fly wheel.	All other classes.	Total.
	$802 07			$4,648 52			$6,600 96
			$21 00				104,951 26
	4,695 47						66,686 51
							2,136 50
						§$6,739 81	6,739 81
							125 00
						†1,015 00	1,015 00
							917 81
		$97 65					97 65
							672 94
							6,657 83
							42,864 61
	890 73						22,447 79
	1,217 20		191 55	8,295 69			45,072 34
							1,311 10
							310 60
949 27	9,806 48			1,945 07			84,742 31
	1,615 31		2 50	113 01			16,681 93
	4,179 48		12,440 75				68,463 33
							202 78
							1,057 95
250 00							250 00
						†9,915 00	9,915 00
							160 56
							2,953 53
							5,192 35
	387 00			1,016 26			51,753 93
	3,897 02			474 12		‡1,083 41	31,086 68
							11,900 99
							117 45
							11,082 15
	3,859 10						26,585 81
	4,565 18		71 00				40,259 80
	882 70						2,464 24
							7,784 24
							32,338 65
							77,477 66
	2,535 90		12,058 56	789 36			103,295 59
							122,614 89
	6,589 20		20 25	2,035 44			62,504 67
			255 70	136 61			17,314 41
				2,250 79			11,356 05
							20,234 79
							87 50
	363 90						822 73
							3,127 97
7 23			325 93	168 95			2,872 53
							54,572 74
				2 15			901 28
							5,995 24
		855 88					855 88
		1,172 40					1,172 40
							98,197 37
				12 77			7,020 59
	3,644 80						42,977 84
							1,173 49
$1,206 50	$49,937 08	$2,125 93	$25,387 24	$21,888 74		$18,753 22	$1,348,177 01

TABLE No. 28.

Showing the business transacted by "Surplus Line" brokers licensed under Section 596, Political Code.

Name.	FIRE.				MARINE AND MISCELLANEOUS.			
	Gross amount procured or placed during year.	Total premiums charged thereon.	Amount canceled.	Gross premiums returned.	Gross amount procured or placed during year.	Total premiums charged thereon.	Amount canceled.	Gross premiums returned.
*Archer, A. T.								
Bender, A. M.	$5,000 00	$165 00						
Birlem, F. W.	225,530 00	6,404 97	$42,920 00	$1,102 11	$714,430 00	$3,526 13	$109,067 00	$843 48
Clark, J. E.	1,915,700	11,906 11	992,000 00	3,543 44	69,951 30	2,642 12		
†Coleman, Clarence								
Davis, Bert	175,500 00	1,407 54	155,000 00	539 23	677,179 00	3,141 97		
Davis, W. S.	529,805 00	8,324 52	318,150 00	911 22	77,000 00	1,056 34		
*Devine, Geo. E.			25,000 00	19 00				
*Foster, Geo. H.								
Foster, Robert D.	10,000 00	204 00						
Harrison, C. B.	205,477 16	7,813 92	4,905 00	141 25	1,094,552 00	14,913 10		
Johns, R. G.	268,975 00	7,563 07	183,175 00	3,580 80				
Mannheim, H. S.	106,600 00	3,430 79	750 00	28 13	612,000 10	918 00		
Macdonald, Wm.	562,500 00	2,282 28	41,490 00	77 79				
†Merrill, J. A.								
Pierce, D. W.	74,000 00	1,307 94						
Rosenthal, Louis					575,332 00	23,351 32		
Rule, O. Rey	99,750 00	1,658 27	22,750 00	261 66	331,975 00	12,108 67	70,295 00	1,339 37
Smith, C. W.	183,575 00	8,527 64	59,925 00	1,903 85				
Sloan, J. R.	3,000 00	181 76						
*Thornton, A. C.								
Wayman, W. O.	368,000 00	6,263 69	95,500 00	1,086 23				
Ward, R. C.	209,500 00	2,619 23			83,198 00	3,116 30		
Williamson, C. H.	2,900 00	230 15						
Totals	$4,945,872 16	$70,290 88	$1,941,565 00	$13,194 71	$4,235,617 30	$64,773 95	$179,362 00	$2,182 85

* Transacted no business.

† Filed no report. Investigation pending.

TABLE No. 29.

Showing the Total Income, Disbursements, Assets and Liabilities of Fraternal Benefit Societies doing business in this State, for the year ending December 31, 1911.

		Total income.	Total disbursements.	Total assets.	Total liabilities.	Total certificates issued, transferred or increased during the year 1911.	
						Number.	Amount.
American Nobles	Waterloo, Iowa	$215,705 75	$208,665 49	$63,364 57	$2,129 93	2,777	$3,103,750 00
Ancient Order of United Workmen	San Franisco, Cal.	335,798 65	319,758 70	16,039 95	362,119 74	----------	----------
Ben Hur (Supreme Tribe)	Crawfordsville, Ind.	1,565,654 33	1,502,926 44	1,689,922 13	171,704 11	21,842	20,470,750 00
Brotherhood of American Yoemen	Des Moines, Iowa	2,089,241 22	1,743,620 63	2,104,230 14	254,990 69	40,284	49,146,000 00
Catholic Order of Foresters	Chicago, Ill.	1,766,373 29	1,513,190 76	2,784,156 85	171,244 03	11,632	11,190,500 00
Catholic Knights of America	St. Louis, Mo.	663,613 14	594,073 51	1,105,642 92	21,922 76	1,036	804,500 00
Church Fraternal	Monmouth, Ill.	60,426 66	57,396 15	90,072 96	9,952 44	273	269,000 00
Court of Honor	Springfield, Ill.	1,190,136 35	979,164 42	2,076,035 64	74,218 81	11,212	10,734,000 00
Degree of Honor	Sioux City, S. D.	68,958 21	48,406 66	108,029 25	9,322 61	820	659,750 00
Equitable Fraternal Union	Neenah, Wis.	494,153 14	261,737 84	1,539,756 38	22,087 38	6,500	7,484,000 00
Fraternal Aid Association	Lawrence, Kan.	586,899 63	549,336 21	695,983 35	48,500 00	7,978	8,593,250 00
Fraternal Brotherhood	Los Angeles, Cal.	802,587 25	705,142 89	654,772 53	55,044 94	13,798	15,506,000 00
Fraternal Mystic Circle	Philadelphia, Pa.	568,996 35	555,604 62	460,895 14	119,559 23	2,152	1,947,550 00
Fraternal Union of America	Denver, Col.	439,649 16	457,301 23	333,582 10	86,788 09	5,872	6,645,700 00
Grand Fraternity	Philadelphia, Pa.	276,477 65	264,805 00	365,679 46	81,772 63	3,060	2,568,117 00
Heralds of Liberty	Philadelphia, Pa.	105,746 65	94,021 19	69,761 34	14,629 23	1,925	1,925,000 00
Homesteaders	Des Moines, Iowa	241,017 10	210,000 25	120,626 71	16,068 17	4,699	6,968,500 00
Independent Order of Foresters	Toronto, Can.	5,742,842 85	3,578,149 84	18,926,517 36	1,302,745 66	31,126	24,139,602 00
Independent Order of Puritans	Pittsburg, Pa.	141,542 27	127,035 07	65,160 40	60,184 86	1,456	1,215,200 00
Knights of Columbus	New Haven, Conn.	1,314,406 68	900,450 94	3,591,825 88	79,781 63	10,526	11,282,000 00
Knights of Honor	St. Louis, Mo.	1,543,353 15	1,393,791 72	499,551 51	506,163 46	1,282	1,245,000 00
Knights of Pythias (I. D.)	Indianapolis, Ind.	2,689,650 35	2,150,347 56	4,151,282 98	3,438,811 94	12,751	16,453,924 66
Knights and Ladies of Honor	Indianapolis, Ind.	1,751,594 23	1,747,688 26	667,227 81	151,841 96	7,542	4,654,250 00
Knights and Ladies of Security	Topeka, Kan.	1,685,575 29	1,554,734 35	1,977,024 88	116,261 73	35,795	39,973,000 00
Knights of the Maccabees of the World	Detroit, Mich.	5,253,453 02	4,451,519 61	11,239,995 01	954,060 32	32,327	33,150,500 00
Knights of Modern Maccabees	Port Huron, Mich.	1,743,954 13	1,755,813 12	458,177 74	217,911 97	5,524	5,574,000 00
Ladies of the Maccabees of the World	Port Huron, Mich.	1,953,875 47	1,220,997 30	5,733,528 47	146,696 28	17,277	12,895,500 00
Ladies of the Modern Maccabees	Port Huron, Mich.	653,421 97	555,073 37	704,717 42	58,147 72	1,696	1,229,750 00
Loyal Americans of the Republic	Springfield, Ill.	380,334 97	355,797 94	350,099 44	41,643 02	2,143	1,965,250 00
Loyal Mystic Legion of America	Hastings, Neb.	221,531 98	84,244 03	145,465 34	1,000 00	126	130,500 00
Lincoln Annuity Union	San Francisco, Cal.	19,094 53	19,206 74	3,021 01	58,279 15	357	553,725 00
Modern Brotherhood of America	Mason City, Iowa	1,711,329 26	1,642,984 85	1,191,486 38	190,851 88	31,058	35,465,500 00
Modern Order of Prætorians	Dallas, Texas	392,396 50	306,766 34	1,007,166 40	249,485 48	----------	----------
Modern Woodmen of America	Rock Island, Ill.	16,205,371 21	13,579,254 19	11,691,080 73	1,441,973 55	131,341	179,888,000 00
Mystic Toilers	Des Moines, Iowa	68,892 26	54,477 19	144,171 46	787 00	479	490,000 00
National Americans	Kansas City, Mo.	----------	----------	----------	----------	----------	----------
National Fraternal Society of the Deaf	Chicago, Ill.	15,854 46	7,906 64	18,749 84	----------	167	249,950 00
National Protective Legion	Waverly, N. Y.	982,372 82	2,001,479 07	331,362 16	176,531 86	32,481	8,960,217 50
National Union	Toledo, Ohio	2,652,268 48	2,523,357 58	2,354,239 05	217,138 70	7,289	8,933,000 00

TABLE No. 29—Continued.

Showing the Total Income, Disbursements, Assets and Liabilities of Fraternal Benefit Societies doing business in this State, for the year ending December 31, 1911.

		Total income.	Total disbursements.	Total assets.	Total liabilities.	Total certificates issued, transferred or increased during the year 1911.	
						Number.	Amount.
North American Union	Chicago, Ill.	$276,899 12	$252,085 09	$729,345 30	$80,039 22	1,692	$1,583,500 00
Order of the Golden Seal	Roxburg, N. Y.	706,984 97	985,340 66	1,265,853 80	83,107 15	5,911	8,980,250 00
Order of the Iroquois	Buffalo, N. Y.	46,428 96	47,996 61	47,861 34	5,000 92	261	315,750 00
Order of Railway Employees	San Francisco, Cal.	72,979 61	69,896 91	11,240 28	5,560 00	------	------
Polish National Alliance	Chicago, Ill.	789,154 96	604,987 42	1,225,795 38	159,036 87	12,859	7,561,500 00
Royal Arcanum	Boston, Mass.	8,431,816 61	8,443,299 38	6,606,943 36	726,691 81	16,123	21,399,500 00
Royal Highlanders	Aurora, Neb.	427,886 20	334,026 11	1,322,074 43	18,166 68	4,514	5,191,000 00
Royal Neighbors of America	Rock Island, Ill.	1,739,130 85	1,586,099 49	947,630 10	229,300 00	31,338	32,447,000 00
United Artisans	Portland, Ore.	233,709 38	164,292 59	652,253 97	4,000 00	2,338	23,660 00
Workmen's Sick and Death Benefit Fund of United States of America	New York, N. Y.	536,291 46	438,940 06	537,287 27	22,874 42	3,369	842,250 00
Women of Woodcraft	Portland, Ore.	789,723 44	523,452 89	1,312,185 45	51,544 58	4,903	4,050,100 00
Woodmen of the World (Pacific Jurisdiction, Head Camp)	Denver, Col.	2,457,196 20	1,723,500 97	4,863,497 81	175,839 65	12,491	17,619,100 00
Totals	------	$75,102,752 27	$65,250,145 88	$99,052,371 18	$12,493,514 26	594,402	$636,478,846 16

TABLE No. 29—CONTINUED.

Showing the Total Income, Disbursements, Assets and Liabilities of Fraternal Benefit Societies doing business in this State, for the year ending December 31, 1911.

		Total certificates terminated during the year 1911.		Total certificates in force December 31, 1911.		Total claims incurred during 1911.	Total claims paid during 1911.	Total claims unpaid December 31, 1911.
		Number.	Amount.	Number.	Amount.			
American Nobles	Waterloo, Iowa	3,206	$3,508,581 00	16,012	$19,649,400 00	$117,304 29	$128,598 17	$2,129 95
Ancient Order of United Workmen	San Francisco, Cal.	----	----	----	----	----	----	----
Ben Hur (Supreme Tribe)	Crawfordsville, Ind.	15,217	15,114,100 00	119,953	139,825,900 00	1,168,300 00	1,154,324 09	150,975 00
Brotherhood of American Yeomen	Des Moines, Iowa	23,173	28,596,500 00	151,095	207,921,500 00	1,354,546 89	1,253,688 31	228,165 15
Catholic Order of Foresters	Chicago, Ill.	6,981	5,796,250 00	149,295	153,591,250 00	1,408,000 00	1,366,886 48	170,658 57
Catholic Knights of America	St. Louis, Mo.	944	1,410,312 20	18,629	21,511,803 27	545,606 95	569,100 69	21,922 76
Church Fraternal	Monmouth, Ill.	256	297,000 00	3,833	5,231,500 00	52,300 00	46,300 00	9,000 00
Court of Honor	Springfield, Ill.	8,810	8,578,750 00	67,245	81,877,625 00	775,419 40	749,966 82	70,653 76
Degree of Honor	Sioux City, S. D.	720	579,750 00	4,544	3,906,000 00	33,500 00	30,000 00	3,500 00
Equitable Fraternal Union	Neenah, Wis.	3,484	3,867,000 00	30,633	39,990,000 00	206,857 83	202,075 43	22,087 38
Fraternal Aid Association	Lawrence, Kan.	4,309	3,879,750 00	40,613	52,053,250 00	457,192 40	427,542 12	48,500 00
Fraternal Brotherhood	Los Angeles, Cal.	9,787	11,332,500 00	50,213	62,967,000 00	422,620 77	443,608 21	40,949 28
Fraternal Mystic Circle	Philadelphia, Pa.	3,118	3,314,750 00	20,129	22,220,550 00	433,604 73	435,290 74	112,197 14
Fraternal Union of America	Denver, Col.	4,968	5,672,750 00	31,110	40,959,300 00	352,095 98	348,519 85	67,301 66
Grand Fraternity	Philadelphia, Pa.	2,850	2,654,557 00	11,964	11,634,572 00	120,365 46	133,618 37	17,713 34
Heralds of Liberty	Philadelphia, Pa.	1,498	1,498,000 00	7,935	7,958,100 00	45,500 00	41,000 00	----
Homesteaders	Des Moines, Iowa	3,420	4,970,500 00	15,435	21,336,500 00	111,500 17	114,896 10	9,287 50
Independent Order of Foresters	Toronto, Can.	26,064	22,216,804 00	241,571	242,093,787 00	3,213,967 33	2,968,825 65	396,012 38
Independent Order of Puritans	Pittsburg, Pa.	1,519	1,961,867 78	4,575	7,689,269 00	78,199 76	56,489 23	57,830 01
Knights of Columbus	New Haven, Conn.	4,194	4,386,000 00	86,257	90,283,000 00	624,305 00	647,688 33	76,333 35
Knights of Honor	St. Louis, Mo.	2,357	3,161,500 00	17,949	27,957,300 00	1,333,800 00	1,297,250 00	506,163 46
Knights of Pythias (I. D.)	Indianapolis, Ind.	15,688	24,615,636 66	68,842	97,975,993 00	1,813,636 66	1,669,384 28	158,000 00
Knights and Ladies of Honor	Indianapolis, Ind.	9,342	7,409,750 00	71,277	68,242,750 00	1,503,366 57	1,556,770 69	150,994 08
Knights and Ladies of Security	Topeka, Kan.	19,692	21,508,000 00	116,486	139,451,000 00	1,249,952 31	1,191,348 93	126,100 00
Knights of the Maccabees of the World	Detroit, Mich.	30,944	33,010,124 79	271,784	333,665,582 21	4,177,160 95	3,679,635 26	1,440,569 52
Knights of Modern Maccabees	Port Huron, Mich.	33,671	40,560,750 00	73,309	90,025,250 00	2,027,729 92	1,623,772 71	1,191,323 12
Ladies of the Maccabees of the World	Port Huron, Mich.	10,491	7,480,331 53	142,145	109,696,054 68	851,010 94	835,181 68	91,733 34
Ladies of the Modern Maccabees	Port Huron, Mich.	3,280	3,288,575 00	41,722	32,673,500 00	431,434 39	427,980 90	50,814 16
Loyal Americans of the Republic	Springfield, Ill	3,473	3,222,887 00	28,210	32,871,662 68	324,606 00	229,990 48	29,416 80
Loyal Mystic Legion of America	Hastings, Neb.	274	314,500 00	4,518	5,793,500 00	76,050 00	75,050 00	1,000 00
Lincoln Annuity Union	San Francisco, Cal.	641	1,036,600 00	965	1,621,862 50	13,798 75	10,348 75	1,265 00
Modern Brotherhood of America	Mason City, Iowa	26,116	30,174,250 00	157,569	192,666,750 00	1,309,508 20	1,235,492 89	185,775 00
Modern Order of Prœtorians	Dallas, Texas	----	----	----	----	----	----	----
Modern Woodmen of America	Rock Island, Ill.	77,413	102,792,000 00	1,183,733	1,863,194,000 00	12,020,500 00	11,613,842 85	1,381,876 60
Mystic Toilers	Des Moines, Iowa	1,827	2,227,250 00	3,345	3,657,250 00	39,725 00	38,725 00	1,000 00
National Americans	Kansas City, Mo.	----	----	----	----	----	----	----
National Fraternal Society of the Deaf	Chicago, Ill.	57	32,250 00	1,099	705,950 00	3,785 00	5,035 00	----
National Protective Legion	Waverly, N. Y.	83,233	20,601,562 50	36,529	16,518,485 00	1,739,770 61	1,637,145 08	1,403 45
National Union	Toledo, Ohio	8,373	12,191,500 00	62,623	120,590,500 00	2,307,000 00	2,313,040 40	210,000 00

TABLE No. 29.—Continued.

Showing the Total Income, Disbursements, Assets and Liabilities of Fraternal Benefit Societies doing business in this State, for the year ending December 31, 1911.

		Total certificates terminated during the year 1911.		Total certificates in force December 31, 1911.		Total claims incurred during 1911.	Total claims paid during 1911.	Total claims unpaid December 31, 1911.
		Number.	Amount.	Number.	Amount.			
North American Union	Chicago, Ill.	1,465	$1,437,000 00	14,796	$18,669,500 00	$198,939 83	$175,475 23	$49,000 00
Order of the Golden Seal	Roxburg, N. Y.	10,279	8,820,250 00	23,387	18,186,250 00	187,414 13	190,174 13	1,940 00
Order of the Iroquois	Buffalo, N. Y.	277	329,980 00	2,487	3,549,300 00	40,280 00	36,602 62	6,500 00
Order of Railway Employees	San Francisco, Cal.	----------	----------	5,892	----------	----------	31,482 33	----------
Polish National Alliance	Chicago, Ill.	5,677	3,162,500 00	74,687	41,814,700 00	458,000 00	442,762 62	155,972 66
Royal Arcanum	Boston, Mass.	12,693	23,304,882 19	248,888	487,992,345 80	8,051,718 63	8,221,186 22	699,272 57
Royal Highlanders	Aurora, Neb.	4,294	5,051,000 00	28,039	39,680,500 00	242,553 66	241,726 08	18,166 68
Royal Neighbors of America	Rock Island, Ill.	6,964	7,510,000 00	234,247	247,949,500 00	1,290,500 00	1,268,972 53	181,000 00
United Artisans	Portland, Ore.	1,644	15,295 00	15,378	180,785 00	121,270 00	117,150 79	4,000 00
Workmen's Sick and Death Benefit Fund of United States of America	New York, N. Y.	1,930	482,500 00	46,706	11,676,500 00	415,962 75	412,271 38	22,874 42
Women of Woodcraft	Portland, Ore.	3,532	3,669,900 00	47,557	58,558,900 00	394,400 00	380,754 17	50,783 33
Woodmen of the World (Pacific Jurisdiction, Head Camp)	Denver, Col.	8,388	12,993,300 00	105,950	189,878,500 00	1,490,700 00	1,451,098 00	147,900 00
Totals		508,533	$510,039,796 65	4,201,160	$5,488,154,477 14	$95,321,036 26	$53,528,069 59	$8,370,061 40

TABLE No. 30.

Showing the California business done by Fraternal Benefit Societies doing business in this State for the year ending December 31, 1911.

		Certificates in force December 31, 1910.		Certificates issued, transferred or increased during 1911.		Certificates terminated during 1911.	
		Number.	Amount.	Number.	Amount.	Number.	Amount.
American Nobles	Waterloo, Iowa	501	$667,175 00	65	$80,700 00	69	$94,075 00
Ancient Order of United Workmen	San Francisco, Cal.	3,998	6,195,800 00	232	351,600 00	807	1,279,500 00
Ben Hur (Supreme Tribe)	Crawfordsville, Ind.	965	1,187,200 00	121	107,500 00	147	158,400 00
Brotherhood of American Yeomen	Des Moines, Iowa	3,249	4,876,000 00	715	902,500 00	443	548,000 00
Catholic Order of Foresters	Chicago, Ill.	200	235,500 00	112	106,750 00	14	14,000 00
Catholic Knights of America	St. Louis, Mo.	308	464,774 00	5	6,000 00	21	40,500 00
Church Fraternal	Monmouth, Ill.			98	94,500 00	112	120,500 00
Court of Honor	Springfield, Ill.	*43	1,557 00	219	2,655 00	102	1,914 00
Court of Honor	Springfield, Ill.	427	531,500 00	390	420,500 00	149	145,500 00
Degree of Honor	Sioux City, S. D.	460	424,500 00	16	14,500 00	34	32,500 00
Equitable Fraternal Union	Neenah, Wis.	27	38,000 00	114	173,000 00	14	17,000 00
Fraternal Aid Association	Lawrence, Kan.	4,669	6,237,500 00	613	632,000 00	402	393,500 00
Fraternal Brotherhood	Los Angeles, Cal.	29,459	356,875 00	7,502	82,420 00	5,501	61,665 00
Fraternal Mystic Circle	Philadelphia, Pa.	73	83,500 00	1	2,500 00	4	6,500 00
Fraternal Union of America	Denver, Col.	618	783,550 00	19	18,500 00	34	29,900 00
Grand Fraternity	Philadelphia, Pa.	572	683,550 00	4	3,500 00	109	140,000 00
Heralds of Liberty	Philadelphia, Pa.	254	254,000 00	92	92,000 00	61	61,000 00
Homesteaders	Des Moines, Iowa	220	339,000 00	190	325,000 00	108	185,000 00
Independent Order of Foresters	Toronto, Can.	13,288	17,143,029 00	3,038	2,696,700 00	1,996	2,005,167 00
Independent Order of Puritans	Pittsburg, Pa.	93	319,500 00	66	255,000 00	26	33,130 00
Knights of Columbus	New Haven, Conn.	1,106	1,180,000 00	126	149,000 00	57	65,000 00
Knights of Honor	St. Louis, Mo.	557	936,000 00	1	1,000 00	104	166,000 00
Knights of Pythias (I. D.)	Indianapolis, Ind.	1,928	2,949,500 00	378	580,294 00	354	581,925 00
Knights and Ladies of Honor	Indianapolis, Ind.	553	718,500 00	50	23,750 00	21	23,250 00
Knights and Ladies of Security	Topeka, Kan.	2,197	2,507,500 00	937	1,166,500 00	514	622,000 00
Knights of the Maccabees of the World	Detroit, Mich.	8,236	10,922,450 00	576	645,000 00	703	626,450 00
Knights of the Modern Maccabees	Port Huron, Mich.	146	17,900 00	4	4,500 00	7	11,000 00
Ladies of the Maccabees of the World	Port Huron, Mich.	3,772	3,112,415 00	458	368,000 00	227	168,595 00
Ladies of the Modern Maccabees	Port Huron, Mich.	79	65,750 00	7	5,250 00	30	26,750 00
Loyal Americans of the Republic	Springfield, Ill.	24	42,200 00			2	2,250 00
Loyal Mystic Legion of America	Hastings, Neb.	164	233,000 00	4	3,500 00	5	5,500 00
Lincoln Annuity Union	San Francisco, Cal.	214	312,500 00	6	5,375 00	87	144,037 00
Modern Brotherhood of America	Mason City, Iowa	1,476	1,794,000 00	655	717,000 00	476	515,000 00
Modern Order of Prætorians	Dallas, Texas						
Modern Woodmen of America	Rock Island, Ill.	19,819	33,675,500 00	2,683	4,044,500 00	913	1,135,000 00
Mystic Toilers	Des Moines, Iowa						
National Fraternal Society of the Deaf	Chicago, Ill.	16	8,000 00	7	8,350 00	2	2,000 00
National Protective Legion	Waverly, N. Y.	430	206,304 00	268	104,387 00	357	137,457 00
National Union	Toledo, Ohio	3,966	8,297,000 00	589	924,000 00	594	998,000 00
National Americans	Kansas City, Mo.						
North American Union	Chicago, Ill.	92	106,000 00	9	10,000 00	34	34,000 00

TABLE No. 30—Continued.

Showing the California business done by Fraternal Benefit Societies doing business in this State for the year ending December 31, 1911.

		Certificates in force December 31, 1910.		Certificates issued, transferred or increased during 1911.		Certificates terminated during 1911.	
		Number.	Amount.	Number.	Amount.	Number.	Amount.
Order of the Golden Seal	Roxburg, N. Y.	281	$417,750 00	117	$159,500 00	293	$459,500 00
Order of the Iroquois	Buffalo, N. Y.	12	15,475 00	--------	--------	--------	--------
Order of Railway Employees	San Francisco, Cal.	2,715	1,508,950 00	2,430	1,350,000 00	--------	--------
Polish National Alliance	Chicago, Ill.	148	95,300 00	32	21,900 00	8	7,300 00
Royal Arcanum	Boston, Mass.	2,373	4,759,500 00	384	729,500 00	320	607,499 00
Royal Highlanders	Aurora, Neb.	188	240,000 00	399	380,000 00	146	146,000 00
Royal Neighbors of America	Rock Island, Ill.	3,266	3,602,000 00	677	712,000 00	210	229,750 00
United Artisans	Portland, Ore.	1,226	1,417,500 00	174	172,000 00	201	196,000 00
Workmen's Sick and Death Benefit Fund of United States of America	New York, N. Y.	649	162,250 00	148	37,000 00	49	12,250 00
Women of Woodcraft	Portland, Ore.	10,302,	11,363,800 00	1,189	887,300 00	813	681,800 00
Woodmen of the World (Pacific Jurisdiction, Head Camp)	Denver, Col.	33,126	56,897,600 00	4,276	5,806,600 00	2,530	3,616,000 00
Totals		158,485	$188,387,154 00	30,196	$25,384,031 00	19,210	$16,588,064 00

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*Social certificates.

TABLE No. 30—Continued.

Showing the California business done by Fraternal Benefit Societies doing business in this State for the year ending December 31, 1911.

		Certificates in force December 31, 1911.		Received from members during the year 1911.	Claims incurred during the year 1911.	Claims paid during the year 1911.	Claims unpaid December 31, 1911.
		Number.	Amount.				
American Nobles	Waterloo, Iowa	497	$653,800 00	$7,575 27	$7,020 92	$6,592 00	$428 92
Ancient Order of United Workmen	San Francisco, Cal.	3,423	5,267,900 00	--------	244,200 00	255,846 10	332,119 74
Ben Hur (Supreme Tribe)	Crawfordsville, Ind.	939	1,136,300 00	14,640 32	19,800 00	21,000 00	800 00
Brotherhood of American Yeomen	Des Moines, Iowa	3,521	5,230,500 00	41,371 44	37,800 00	33,918 90	5,500 00
Catholic Order of Foresters	Chicago, Ill.	298	328,250 00	3,106 40	--------	--------	--------
Catholic Knights of America	St. Louis, Mo.	292	430,273 00	14,366 10	17,016 67	20,016 67	1,000 00
Church Fraternal	Monmouth, Ill.	368	430,500 00	5,287 64	--------	--------	--------
Court of Honor	Springfield, Ill.	160	2,298 00	--------	--------	--------	--------
Court of Honor	Springfield, Ill.	668	806,500 00	9,652 55	3,252 02	4,002 02	--------
Degree of Honor	Sioux City, S. D.	442	406,500 00	7,104 85	6,500 00	5,500 00	1,000 00
Equitable Fraternal Union	Neenah, Wis.	327	194,000 00	1,082 93	--------	--------	--------
Fraternal Aid Association	Lawrence, Kan.	4,880	6,476,000 00	79,167 51	46,100 00	48,100 00	8,000 00
Fraternal Brotherhood	Los Angeles, Cal.	31,460	377,630 00	380,858 44	253,168 60	261,827 84	23,391 07
Fraternal Mystic Circle	Philadelphia, Pa.	70	79,500 00	1,902 82	2,500 00	2,500 00	--------
Fraternal Union of America	Denver, Col.	603	772,150 00	8,633 24	5,068 07	6,139 37	--------
Grand Fraternity	Philadelphia, Pa.	467	547,050 00	13,796 76	16,386 71	19,386 71	1,000 00
Heralds of Liberty	Philadelphia, Pa.	285	285,000 00	3,916 00	1,000 00	1,000 00	--------
Homesteaders	Des Moines, Iowa	302	479,000 00	4,443 94	956 41	956 41	--------
Independent Order of Foresters	Toronto, Can.	14,330	17,834,562 00	307,704 45	179,615 96	163,936 82	33,442 43
Independent Order of Puritans	Pittsburg, Pa.	135	541,370 00	7,801 63	125 00	125 00	--------
Knights of Columbus	New Haven, Conn.	1,175	1,264,000 00	16,786 38	9,000 00	9,000 00	2,000 00
Knights of Honor	St. Louis, Mo.	454	771,000 00	49,312 35	59,800 00	61,800 00	22,500 00
Knights of Pythias (I. D.)	Indianapolis, Ind.	1,952	2,947,869 00	70,300 24	40,000 00	43,173 52	3,000 00
Knights and Ladies of Honor	Indianapolis, Ind.	582	719,000 00	22,242 75	17,500 00	19,500 00	1,000 00
Knights and Ladies of Security	Topeka, Kan.	2,620	3,052,000 00	32,434 35	21,800 00	20,398 16	1,000 00
Knights of the Maccabees of the World	Detroit, Mich.	8,109	10,941,000 00	163,206 81	132,205 86	120,934 02	36,825 45
Knights of the Modern Maccabees	Port Huron, Mich.	143	172,500 00	2,415 95	3,500 00	3,550 00	650 00
Ladies of the Maccabees of the World	Port Huron, Mich.	4,003	3,311,820 00	55,782 95	20,300 00	23,666 67	3,000 00
Ladies of the Modern Maccabees	Port Huron, Mich.	56	44,250 00	1,273 78	100 00	1,100 00	--------
Loyal Americans of the Republic	Springfield, Ill.	22	39,950 00	472 59	--------	--------	--------
Loyal Mystic Legion of America	Hastings, Neb.	163	231,000 00	3,071 05	1,000 00	1,000 00	--------
Lincoln Annuity Union	San Francisco, Cal.	133	173,827 00	1,379 12	2,532 50	2,345 00	1,250 00
Modern Brotherhood of America	Mason City, Iowa	1,655	1,996,000 00	15,740 31	14,093 18	12,468 18	1,225 00
Modern Order of Prætorians	Dallas, Texas	--------	--------	--------	--------	--------	--------
Modern Woodmen of America	Rock Island, Ill.	21,589	36,585,000 00	305,608 82	228,000 00	200,500 00	46,000 00
Mystic Toilers	Des Moines, Iowa	--------	--------	--------	--------	--------	--------
National Fraternal Society of the Deaf	Chicago, Ill.	21	13,350 00	301 43	30 00	30 00	--------
National Protective Legion	Waverly, N. Y.	341	173,234 00	8,627 90	16,602 44	14,269 14	--------
National Union	Toledo, Ohio	3,961	8,223,000 00	147,292 81	121,000 00	113,000 00	15,000 00
National Americans	Kansas City, Mo.	--------	--------	--------	--------	--------	--------
North American Union	Chicago, Ill.	67	82,000 00	1,491 43	--------	--------	--------

TABLE No. 30—Continued.

Showing the California business done by Fraternal Benefit Societies doing business in this State for the year ending December 31, 1911.

		Certificates in force December 31, 1911.		Received from members during the year 1911.	Claims incurred during the year 1911.	Claims paid during the year 1911.	Claims unpaid December 31, 1911.
		Number.	Amount.				
Order of the Golden Seal	Roxburg, N. Y.	105	$117,750 00	$5,221 95	$690 00	$690 00	
Order of the Iroquois	Buffalo, N. Y.	12	15,475 00	180 00			
Order of Railway Employees	San Francisco, Cal.	3,539	1,978,700 00			26,142 43	
Polish National Alliance	Chicago, Ill.	172	109,900 00	1,847 37	7,300 00	7,850 00	1,250 00
Royal Arcanum	Boston, Mass.	2,437	4,881,500 00	76,802 58	70,154 57	75,493 85	8,599 06
Royal Highlanders	Aurora, Neb.	381	474,000 00	3,641 95			
Royal Neighbors of America	Rock Island, Ill.	3,733	4,084,250 00	28,796 84	18,500 00	15,500 00	3,000 00
United Artisans	Portland, Ore.	1,199	1,393,500 00	17,212 91	17,000 00	18,418 01	
Workmen's Sick and Death Benefit Fund of United States of America	New York, N. Y.	748	187,000 00	7,815 94	7,041 00	7,041 00	500 00
Women of Woodcraft	Portland, Ore.	10,678	11,569,300 00	142,269 97	69,700 00	62,000 00	14,575 00
Woodmen of the World (Pacific Jurisdiction, Head Camp)	Denver, Col.	34,872	59,088,200 00	699,106 23	424,500 00	418,525 00	52,700 00
Totals		168,187	$196,919,468 00	$2,793,049 22	$2,142,859 91	$2,129,242 82	$620,756 67

TABLE No. 31.

Showing the names of companies organized under the laws of California, authorized to transact business in California on December 31, 1911, year of organization, names of the president and secretary, and principal place of business.

Year of organization.	Name of company.	President.	Secretary.	Place of business.
1868	California	W. E. Dean	Geo. W. Brooks	San Francisco.
1911	California National Life	L. A. Blochman	O. K. Evans	San Diego.
1911	California State Life	Marshall Diggs	J. R. Whisner	Sacramento.
1883	California Title Insurance and Trust	Chas. Page	H. D. Lawrie	San Francisco.
1910	City Abstract and Title	H. W. Dimond	J. H. Humphrey	San Francisco.
1863	Fireman's Fund Insurance	Wm. J. Dutton	Louis Weinmann	San Francisco.
1910	Los Angeles Fire	W. F. Holt	J. H. Richards	Los Angeles.
1906	Occidental Life	Jos. Burkhard	Robt. J. Giles	Los Angeles.
1902	Pacific Coast Casualty	E. F. Green	Joy Licktenstein	San Francisco.
1903	Pacific Mutual Indemnity	Geo. I. Cochran	C. I. D. Moore	Los Angeles.
1867	Pacific Mutual Life	Geo. I. Cochran	C. I. D. Moore	Los Angeles.
1885	Pacific Surety	Clarence Crawford	C. E. Linaker	San Francisco.
1906	Pacific Title	Frank G. Drum	M. F. Vandall	San Francisco.
1911	Premier Indemnity Assurance	John D. Lawrence	C. W. Benjamin	San Diego.
1910	San Francisco Life	John A. Koster	Gordon Thomson	San Francisco.
1906	Standard Title Insurance	Livingston Jenks	Clement Rockhill	San Francisco.
1911	Sunset Assurance Association	T. R. Dawe	Fred H. Schauer	Santa Barb'a.
1895	Title Guarantee and Trust	John D. Pope	L. C. Brand	Los Angeles.
1902	Title Insurance and Guaranty	O. A. Rouleau	H. B. Montague	San Francisco.
1903	Title Insurance and Trust	W. H. Allen, Jr.	O. P. Clark	Los Angeles.
1906	West Coast Life	Henry J. Crocker	Julian Sontag	San Francisco.
1910	Western States Life	Warren R. Porter	F. S. Withington	San Francisco.

TABLE No. 32.

Showing the names of companies, other than California companies, authorized to transact business in California on December 31, 1911, year organized, location, present general agent, and his place of business in California.

Year organized.	Name of company.	Location.	General agent.	Place of business.
1825	Aachen and Munich	Aix-la-Chapelle	Thos. J. Conroy	San Francisco.
1907	Ætna Accident and Liability	Hartford, Conn.	J. R. Molony	San Francisco.
1819	Ætna Fire	Hartford, Conn.	E. C. Morrison	San Francisco.
1820	Ætna Life	Hartford, Conn.	E. H. Lestock Gregory	San Francisco.
1853	Agricultural	Watertown, N. Y.	Arthur M. Brown	San Francisco.
1904	Alliance	Philadelphia, Pa.	J. C. Johnston	San Francisco.
1824	Alliance Assurance, Limited	London, England	E. T. Niebling	San Francisco.
1846	American	Newark, N. J.	Gordon & Hoadley	San Francisco.
1894	American Bonding	Baltimore, Md.	Clarence K. Bennett	San Francisco.
1907	American Casualty	Tacoma, Wash.	W. C. Sharpstein	San Francisco.
1853	American Central	St. Louis, Mo.	Christensen & Goodwin	San Francisco.
1893	American Credit Indemnity	New York, N. Y.	Geo. V. Lyddane	San Francisco.
1896	American and Foreign Marine	New York, N. Y.	Balfour, Guthrie & Co.	San Francisco.
1906	American Druggists' Fire	Cincinnati, O.	B. C. Ansley	Los Angeles.
1910	American Fidelity	Montpelier, Vt.	Wm. B. Hayes	San Francisco.
1884	American Surety	New York, N. Y.	Bradtley W. Dobbins	San Francisco.
1910	American Union Fire	Philadelphia, Pa.	A. J. Chapman	San Francisco.
1808	Atlas Assurance Company, Limited	London, England	Frank J. Devlin	San Francisco.
1902	Austin Fire	Austin, Tex.	John E. Anderson	San Francisco.
1879	Bankers' Life	Des Moines, Ia.	L. B. Collins	San Francisco.
1873	Boston	Boston, Mass.	Harry J. Knowles	San Francisco.
1863	British and Foreign Marine, Limited	Liverpool, England	Balfour, Guthrie & Co.	San Francisco.
1805	Caledonian	Edinburgh, Scotland	Thos. J. Conroy	San Francisco.
1897	Caledonian American	New York, N. Y.	Thos. J. Conroy	San Francisco.
1841	Camden Fire Association	Camden, N. J.	Macdonald & Miles	San Francisco.
1881	Canton Insurance Office	Hongkong, China	R. B. Huie	San Francisco.
1903	Casualty Company of America	New York, N. Y.	W. H. La Boyteaux	San Francisco.
1876	Central Manufacturers Mutual	Van Wert, O.	A. C. Baker	Los Angeles.
1837	Citizens	St. Louis, Mo.	Palache & Hewitt	San Francisco.
1905	City of New York	New York, N. Y.	Watson & Taylor	San Francisco.
1906	Columbia Life and Trust	Portland, Ore.	Gavin McNab	San Francisco.
1902	Columbian National Life	Boston, Mass.	Homer McElhany	San Francisco.
1861	Commercial Union Assurance, Limited	London, England	E. T. Niebling	San Francisco.
1890	Commercial Union Fire	New York, N. Y.	E. T. Niebling	San Francisco.
1903	Commonwealth Fire	Dallas, Tex.	John E. Anderson	San Francisco.

1870	Concordia Fire	Milwaukee, Wis.	Dickson & Thieme	San Francisco.
1850	Connecticut Fire	Hartford, Conn.	B. J. Smith	San Francisco.
1846	Connecticut Mutual Life	Hartford, Conn.	A. K. P. Harmon	San Francisco.
1853	Continental	New York, N. Y.	A. G. Nason	San Francisco.
1897	Continental Casualty	Hammond, Ind.	J. E. Betts	San Francisco.
1866	Detroit Fire and Marine	Detroit, Mich.	A. W. Thornton	San Francisco.
1906	Dixie Fire	Greensboro, N. C.	James F. Cobb	San Francisco.
1883	Dubuque Fire and Marine	Dubuque, Ia.	Clarence de Veuve	San Francisco.
1850	Empire City Fire	New York, N. Y.	Associated Underwriters, Inc.	San Francisco.
1901	Empire State Surety	New York, N. Y.	Willis S. Mullen	San Francisco.
1880	Employers' Liability Assurance	London, England	Chas. J. O'Kell	San Francisco.
1859	Equitable Fire and Marine	Providence, R. I.	Geo. H. Tyson	San Francisco.
1859	Equitable Life Assurance Society	New York, N. Y.	A. M. Shields	San Francisco.
1911	Equitable Surety	St. Louis, Mo.	Jos. D. Redding	San Francisco.
1906	Federal Casualty	Detroit, Mich.	W. E. Lower	Los Angeles.
1901	Federal Insurance	Jersey City, N. J.	G. L. Rathbone	San Francisco.
1909	Fidelity Accident	Saginaw, Mich.	Chas. A. Bartlett	Los Angeles.
1876	Fidelity and Casualty	New York, N. Y.	Chas. J. Bosworth	San Francisco.
1890	Fidelity and Deposit	Baltimore, Md.	James W. Moyles	San Francisco.
1878	Fidelity Mutual Life	Philadelphia, Pa.	Jas. S. Osborn	San Francisco.
1910	Fidelity Phœnix Fire	New York, N. Y.	A. G. Nason	San Francisco.
1820	Fire Association	Philadelphia, Pa.	Frank M. Avery	San Francisco.
1855	Firemen's Insurance Company	Newark, N. J.	C. H. Ward	San Francisco.
1847	Fitchburg Mutual	Fitchburg, Pa.	A. H. Elliott	San Francisco.
1879	Fonciere Transports	Paris, France	H. R. Mann & Co.	San Francisco.
1865	Frankfort Marine, Accident and Plate Glass	Frankfort, Germany	David Duncan	San Francisco.
1829	Franklin Fire	Philadelphia, Pa.	C. C. Kinney	San Francisco.
1818	Franklin	Washington, D. C.	T. A. J. Tiedeman	San Francisco.
1851	General Marine	Dresden, Saxony	G. L. Rathbone	San Francisco.
1862	German Insurance Company	Pittsburg, Pa.	Dickson & Thieme	San Francisco.
1876	German Insurance Company	Peoria, Ill.	David Duncan	San Francisco.
1897	German Alliance	New York, N. Y.	Geo. H. Tyson	San Francisco.
1872	German American	New York, N. Y.	Geo. H. Tyson	San Francisco.
1907	German Commercial Accident	Philadelphia, Pa.	Harry W. Overman	San Francisco.
1860	Germania Life	New York, N. Y.	Geo. Leisander	San Francisco.
1853	Girard Fire and Marine	Philadelphia, Pa.	Edward E. Potter	San Francisco.
1849	Glens Falls	Glens Falls, N. Y.	Edward E. Potter	San Francisco.
1899	Globe and Rutgers	New York, N. Y.	Arthur M. Brown	San Francisco.
1892	Great Eastern Casualty	New York, N. Y.	James C. Hayburn	San Francisco.
1901	Guarantee Fund Life Association	Omaha, Neb.	W. R. Williams	Monrovia.
1852	Hamilton Fire	New York, N. Y.	Arthur M. Brown	San Francisco.
1852	Hanover	New York, N. Y.	Bertheau, Selbach & Bertheau	San Francisco.
1810	Hartford Fire	Hartford, Conn.	Palache & Hewitt	San Francisco.
1866	Hartford Steam Boiler Inspection and Insurance Company	Hartford, Conn.	H. R. Mann & Co.	San Francisco.
1853	Home	New York, N. Y.	Harry L. Roff	San Francisco.

TABLE No. 32—Continued.

Showing the names of companies, other than California companies, authorized to transact business in California on December 31, 1911, year organized, location, present general agent, and his place of business in California.

Year organized.	Name of company.	Location.	General agent.	Place of business.
1886	Home Fire	Salt Lake City, Utah	H. R. Mann & Co.	San Francisco.
1860	Home Life	New York, N. Y.	Frank P. Sperling	San Francisco.
1905	Illinois Surety Company	Chicago, Ill.	C. T. Hughes	San Francisco.
1824	Indemnity Mutual Marine Assurance, Limited	London, England	E. C. Evans	San Francisco.
1903	Indiana and Ohio Live Stock	Crawfordsville, Ind.	S. T. Curson	Los Angeles.
1794	Insurance Company of North America	Philadelphia, Pa.	J. C. Johnston	San Francisco.
1794	Insurance Company of the State of Pennsylvania	Philadelphia, Pa.	F. H. Powers	San Francisco.
1909	International Fire	Fort Worth, Texas	J. H. Ankele	San Francisco.
1909	International Life	St. Louis, Mo.	P. S. Wilson	San Francisco.
1881	Individual Underwriters of New York	New York, N. Y.	*	
1907	Inter-Ocean Life and Casualty	Indianapolis, Ind.	O. F. Scherer	Los Angeles.
1897	Indiana Lumberman's Mutual	Indianapolis, Ind.	A. H. Elliott	San Francisco.
1855	Jefferson Fire	Philadelphia, Pa.	Associated Underwriters, Inc.	San Francisco.
1825	Law, Union and Rock	London, England	Harry Holmes Smith	San Francisco.
1836	Liverpool and London and Globe	Liverpool, England	John W. Gunn	San Francisco.
1882	Lloyds Plate Glass	New York, N. Y.	Christensen & Goodwin	San Francisco.
1909	Loyal Protective	Boston, Mass.	H. J. Stanley	Santa Monica.
1720	London Assurance Corporation	London, England	Edwin Parrish	San Francisco.
1861	London and Lancashire	Liverpool, England	James Wyper	San Francisco.
1869	London Guarantee and Accident	London, England	Edw. C. Landis	San Francisco.
1904	Lumber Insurance Company	New York, N. Y.	J. F. Birlem	San Francisco.
1850	Manhattan Life	New York, N. Y.	John Landers	San Francisco.
1879	Mannheim	Mannheim, Germany	J. B. Levinson	San Francisco.
1836	Marine, Limited	London, England	G. W. McNear	San Francisco.
1864	Maritime	Liverpool, England	Livingston, Smith & Co.	San Francisco.
1898	Maryland Casualty	Baltimore, Md.	W. B. Wentz	San Francisco.
1907	Massachusetts Bonding and Insurance	Boston, Mass.	Robertson & Hall	San Francisco.
1851	Massachusetts Mutual Life	Springfield, Mass.	Wm. J. Bell	San Francisco.
1869	Mechanics' and Traders'	New Orleans, La.	Wayman & Henry	San Francisco.
1909	Medical Protective	Fort Wayne, Ind.	Ira Van Slyke	**Oakland.**
1823	Mercantile Fire and Marine	Boston, Mass.	Christensen & Goodwin	San Francisco.
1904	Merchants' Fire	Denver, Colo.	C. D. Hall	San Francisco.
1910	Merchants' Fire	New York, N. Y.	Associated Underwriters, Inc.	San Francisco.
1894	Merchants' Life Association	Burlington, Ia.	Carl A. Stutsman	Los Angeles.
1874	Metropolitan Casualty	New York, N. Y.	H. R. Mann & Co.	San Francisco.

1866	Metropolitan Life	New York, N. Y.	Geo. B. Scott	San Francisco.
1905	Michigan Commercial	Lansing, Mich.	T. J. A. Tiedeman	San Francisco.
1881	Michigan Fire and Marine	Detroit, Mich.	C. A. Henry	San Francisco.
1892	Missouri State Life	St. Louis, Mo.	J. A. Riley & Co.	Patton.
1845	Mutual Benefit Life	Newark, N. J.	Floyd De Groat	San Francisco.
1842	Mutual Life	New York, N. Y.	W. L. Hathaway	San Francisco.
1852	Nassau Fire	Brooklyn, N. Y.	J. F. Magee	San Francisco.
1910	National Ben Franklin Fire	Pittsburg, Pa.	James F. Cobb	San Francisco.
1904	National Casualty	Detroit, Mich.	A. E. Nash	San Francisco.
1869	National Fire	Hartford, Conn.	Wayman & Henry	San Francisco.
1848	National Life	Montpelier, Vt.	Fred Stolp	San Francisco.
1868	National Life of United States of America	Chicago, Ill.	J. J. Harris	San Francisco.
1905	National Lumber	New York, N. Y.	Associated Underwriters	San Francisco.
1897	National Surety	New York, N. Y.	Frank L. Gilbert	San Francisco.
1901	National Union Fire	Pittsburg, Pa.	F. H. Rhoades	San Francisco.
1898	New Amsterdam Casualty	New York, N. Y.	Ashley R. Faull	San Francisco.
1826	New Brunswick	New Brunswick, N. J.	Associated Underwriters, Inc.	San Francisco.
1835	New England Mutual Life	Boston, Mass.	Charles K. Field	San Francisco.
1868	New Jersey Fidelity and Plate Glass	Newark, N. J.	C. H. Ward	San Francisco.
1910	New Jersey Fire	Newark, N. J.	E. D. Silent & Co.	Los Angeles.
1841	New York Life	New York, N. Y.	Arthur Hutchinson	San Francisco.
1891	New York Plate Glass	New York, N. Y.	J. G. Johnston	San Francisco.
1891	New York Reciprocal Underwriters	New York, N. Y.	*	
1859	New Zealand	Auckland, N. Z.	Clinton Folger	San Francisco.
1850	Niagara Fire	New York, N. Y.	Edwin Parrish	San Francisco.
1886	North American Accident	Chicago, Ill.	J. L. Dunscomb	San Francisco.
1809	North British and Mercantile	London, England	John McC. Anderson	San Francisco.
1836	Northern Assurance	London, England	Frank L. Hunter	San Francisco.
1897	Northern Insurance	New York, N. Y.	Bertheau, Selbach & Bertheau	San Francisco.
1822	North River	New York, N. Y.	Associated Underwriters, Inc.	San Francisco.
1857	Northwestern Mutual Life	Milwaukee, Wis.	Smith, Thomas & Thomas	San Francisco.
1901	Northwestern Mutual Fire	Seattle, Wash.	A. H. Elliott	San Francisco.
1869	Northwestern National	Milwaukee, Wis.	Daniel W. Clark	Oakland.
1859	Ocean Marine	London, England	H. M. Newhall & Co.	San Francisco.
1906	Old Colony	Boston, Mass.	Gordon & Hoadley	San Francisco.
1867	Orient	Hartford, Conn.	James Wyper	San Francisco.
1900	Palatine, Limited	London, England	E. T. Niebling	San Francisco.
1899	Pelican Assurance	New York, N. Y.	W. Irving	San Francisco.
1847	Penn Mutual Life	Philadelphia, Pa.	Edw. H. Hart	San Francisco.
1899	Pennsylvania Casualty	Scranton, Pa.	Arthur G. Nason	San Francisco.
1825	Pennsylvania Fire	Philadelphia, Pa.	R. W. Osborn	San Francisco.
1908	People's National Fire	Wilmington, Del.	Bertheau, Selbach & Bertheau	San Francisco.
1900	Philadelphia Casualty	Philadelphia, Pa.	Paul M. Nippert Co.	San Francisco.
1854	Phœnix Fire	Hartford, Conn.	Geo. H. Tyson	San Francisco.
1782	Phœnix Assurance, Limited	London, England	W. Irving	San Francisco.

TABLE No. 32—Continued.

Showing the names of companies, other than California companies, authorized to transact business in California on December 31, 1911, ar organized, location, present general agent, and his place of business in California.

Year organized.	Name of company.	Location.	General agent.	Place of business.
1851	Phœnix Mutual Life	Hartford, Conn.	Jean C. De Kolty	San Francisco.
1902	Pittsburg Life and Trust	Pittsburg, Pa.	Julia R. Stein	San Francisco.
1893	Preferred Accident	New York, N. Y.	Geo. C. Farrell	San Francisco.
1799	Providence Washington	Providence, R. I.	J. F. D. Curtis	San Francisco.
1865	Provident Life and Trust	Philadelphia, Pa.	Vail & Eldridge	San Francisco.
1908	Prudential Casualty	Indianapolis, Ind.	C. F. Phillipp	San Francisco.
1873	Prudential Insurance Company	Newark, N. J.	O. O. Orr	San Francisco.
1845	Prussian National	Stettin, Germany	John A. Prinsen	Los Angeles.
1891	Queen	New York, N. Y.	Rolla V. Watt	San Francisco.
1841	Reliance	Philadelphia, Pa.	C. C. Kinney	San Francisco.
1903	Reliance Life	Pittsburg, Pa.	A. D. F. Reynolds	San Francisco.
1881	Reliance Marine	Liverpool, England	Henry Lund & Co.	San Francisco.
1907	Rhode Island	Providence, R. I.	Wm. Romaine	San Francisco.
1894	Ridgely Protective	Worcester, Mass.	John W. Watkins	Fresno.
1845	Royal	Liverpool, England	Rolla V. Watt	San Francisco.
1910	Royal Indemnity	New York, N. Y.	Rolla V. Watt	San Francisco.
1865	St. Paul Fire and Marine	St. Paul, Minn.	Christensen & Goodwin	San Francisco.
1824	Scottish Union and National	Edinburgh, Scotland	H. W. Fores	San Francisco.
1875	Sea, Limited	Liverpool, England	Meyer Wilson & Co.	San Francisco.
1905	Seaboard Fire and Marine	Galveston, Tex.	H. W. Colson	San Francisco.
1908	Scranton Life	Scranton, Pa.	H. W. Winters	San Francisco.
1841	Security Fire	New Haven, Conn.	E. E. Potter	San Francisco.
1902	Security Life Insurance Company of America	Richmond, Va.	C. B. Atwood	Los Angeles.
1909	Southwestern Surety	Durant, Okla.	Wm. V. Lloyd	San Francisco.
1906	Sovereign Fire	Toronto, Can.	C. J. Stovel	San Francisco.
1849	Springfield Fire and Marine	Springfield, Mass.	Dornin & Dornin	San Francisco.
1884	Standard Accident	Detroit, Mich.	C. F. Briggs	San Francisco.
1905	Standard Fire	Hartford, Conn.	C. C. Kinney	San Francisco.
1871	Standard Marine	Liverpool, England	J. D. Spreckels Bros. & Co.	San Francisco.
1891	State Fire	Liverpool, England	H. W. Fores	San Francisco.
1894	State Life	Indianapolis, Ind.	Pacific Coast Underwriters	San Francisco.
1710	Sun Insurance Office	London, England	Wayman & Henry	San Francisco.
1855	Sun Insurance Company	New Orleans, La.	Wayman & Henry	San Francisco.
1872	Subscribers at United States Lloyds	New York, N. Y.	Wm. H. L. Boyteaux	San Francisco.
1863	Svea	Gothenburg, Sweden	Arthur M. Brown	San Francisco.

1869	Switzerland General	Zurich, Switzerland	Louis Rosenthal	San Francisco.
1871	Teutonia	New Orleans, La.	H. R. Mann & Co.	San Francisco.
1860	Thames and Mersey Marine, Limited	Liverpool, England	Louis Rosenthal	San Francisco.
1901	Title Guaranty and Surety	Scranton, Pa.	Chas. F. Manness	San Francisco.
1863	Travelers'	Hartford, Conn.	Arthur F. Bridge	San Francisco.
1714	Union Assurance Company, Limited	London, England	A. Dalton Harrison	San Francisco.
1867	Union Central Life	Cincinnati, O.	R. L. Stephenson	San Francisco.
1863	Union Marine, Limited	Liverpool, England	J. B. Levinson	San Francisco.
1848	Union Mutual Life	Portland, Me.	Wm. C. Leavitt	San Francisco.
1861	United Firemen's	Philadelphia, Pa.	James F. Cobb	San Francisco.
1895	United States Casualty	New York, N. Y.	James C. Hayburn	San Francisco.
1896	United States Fidelity and Guaranty	Baltimore, Md.	H. V. D. Johns	San Francisco.
1900	United States Health and Accident	Saginaw, Mich.	James C. Hayburn	San Francisco.
1837	Westchester Fire	New York, N. Y.	MacDonald & Miles	San Francisco.
1851	Western Assurance	Toronto, Canada	W. L. Miller	San Francisco.
1889	Yangtse	Shanghai, China	Balfour, Guthrie & Co.	San Francisco.

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*Insurance Commissioner of the State of California appointed to accept service of any notice provided by law.

TABLE No. 33.

Showing Capital Stock, Total Admitted Assets, Liabilities (except capital), Net Surplus and Surplus as regards policyholders of California companies, on December 31, 1911.

FIRE AND MARINE.

Name of company.	Location.	Capital stock paid up.	Total admitted assets.	Total liabilities (except capital).	Net surplus.	Surplus as regards policyholders (including capital).
California	San Francisco	$400,000 00	$1,320,465 87	$702,329 38	$218,136 49	$618,136 49
Fireman's Fund	San Francisco	1,500,000 00	8,649,591 75	4,568,131 23	2,581,460 52	4,081,460 52
Los Angeles Fire	Los Angeles	209,000 00	304,810 25	21,433 22	74,377 03	283,377 03
Total fire and marine		$2,109,000 00	$10,274,867 87	$5,291,893 83	$2,873,974 04	$4,982,974 04
LIFE.						
California State Life	Sacramento	$500,000 00	$807,428 94	$1,010 75	$306,418 19	$806,418 19
California National Life	San Diego	250,000 00	292,924 84	7,163 77	35,761 07	285,761 07
Occidental Life	Los Angeles	250,000 00	631,482 89	349,396 16	32,086 73	282,086 73
Pacific Mutual Life	Los Angeles	1,000,000 00	23,363,286 91	21,561,037 70	802,249 21	1,802,249 21
San Francisco Life	San Francisco	250,000 00	527,557 58	64,975 22	212,582 36	462,582 36
Sunset Assurance	Santa Barbara	*	5,755 69	119 31	5,636 38	5,636 38
West Coast Life	San Francisco	350,000 00	873,095 34	509,605 33	13,490 01	363,490 01
Western State Life	San Francisco	1,000,000 00	1,385,825 62	90,156 84	295,668 78	1,295,668 78
Total life		$3,600,000 00	$27,887,357 81	$22,583,465 08	$1,703,892 73	$5,303,892 73
MISCELLANEOUS.						
California Title Insurance and Trust	San Francisco	$750,000 00	$994,639 22	$184,522 36	$60,116 86	$810,116 86
City Abstract and Title	San Francisco	250,000 00	268,637 71	1,974 24	16,663 47	266,663 47
Pacific Coast Casualty	San Francisco	400,000 00	1,231,513 10	585,679 26	245,833 84	645,833 84
Pacific Mutual Indemnity	Los Angeles	250,000 00	359,673 84	48,768 76	60,905 08	310,905 08
Pacific Surety	San Francisco	300,000 00	625,946 88	232,534 22	93,412 66	393,412 66
Pacific Title	San Francisco	154,500 00	242,296 32	15,450 00	72,346 32	226,846 32
Premier Indemnity	San Diego	26,600 00	29,293 65	250 00	2,443 65	29,043 65
Standard Title	San Francisco	145,400 00	204,500 15	28,772 93	30,327 22	175,727 22
Title Guarantee and Trust	Los Angeles	200,000 00	936,229 58	202,000 00	534,229 58	734,229 58
Title Insurance and Guaranty	San Francisco	365,500 00	483,172 52	99,750 51	17,922 01	383,422 01
Title Insurance and Trust	Los Angeles	500,000 00	1,211,544 41	65,000 00	646,544 41	1,146,544 41
Total miscellaneous		$3,342,000 00	$6,587,447 38	$1,464,702 28	$1,780,745 10	$5,122,745 10
Grand total (California companies)		$9,051,000 00	$44,749,673 06	$29,340,061 19	$6,358,611 87	$15,409,611 87

* Mutual assessment company.

TABLE No. 34.

Showing Capital Stock, Total Admitted Assets, Liabilities (except capital), Net Surplus and Surplus as regards policyholders of companies of other States.

FIRE AND FIRE AND MARINE COMPANIES.

Name of company.	Location.	Capital stock paid up.	Total admitted assets.	Total liabilities (except capital).	Net surplus.	Surplus as regards policyholders (including capital).
Ætna	Hartford	$5,000,000 00	$22,017,389 71	$9,183,194 97	$7,834,194 74	$12,834,194 74
Agricultural	Watertown	500,000 00	4,000,428 73	2,194,458 91	1,305,969 82	1,805,969 82
Alliance	Philadelphia	750,000 00	2,006,556 02	764,530 77	492,025 25	1,242,025 25
American	Newark	1,000 000 00	9,344,434 55	5,081,886 03	3,262,548 52	4,262,548 52
American Central	St. Louis	2,000,000 00	5,471,662 43	2,612,092 17	859,570 26	2,859,570 26
American Druggist	Cincinnati	200,000 00	322,152 69	47,145 01	75,007 68	275,007 68
American Union Fire	Philadelphia	500,000 00	1,125,618 83	474,824 04	150,794 79	650,794 79
Austin Fire	Dallas	250,000 00	582,353 28	222,235 65	110,117 63	360,117 63
Boston	Boston	1,000,000 00	6,467,539 45	2,594,929 76	2,872,609 69	3,872,609 69
Caledonian American	New York	200,000 00	264,021 77	24,887 42	39,134 35	239,134 35
Camden Fire	Camden	500,000 00	2,561,503 87	1,318,077 16	743,426 71	1,243,426 71
Central Manufacturers' Mutual	Van Wert	*	548,688 71	213,968 37	334,720 34	334,720 34
Citizens'	St. Louis	200,000 00	872,697 63	512,285 08	160,412 55	360,412 55
City of New York	New York	500,000 00	1,464,209 09	635,947 44	328,261 65	828,261 65
Commercial Union	New York	200,000 00	924,559 47	414,500 81	310,058 66	510,058 66
Commonwealth Fire	Dallas	250,000 00	552,920 51	210,198 71	92,721 80	342,721 80
Concordia	Milwaukee	300,000 00	1,740,532 47	1,195,997 96	244,534 51	544,534 51
Connecticut Fire	Hartford	1,000,009 00	7,517,091 41	4,399,805 02	2,117,286 39	3,117,286 39
Continental	New York	2,000,000 00	25,576,579 13	9,576,747 00	13,999,832 13	15,999,832 13
Detroit Fire and Marine	Detroit	500,000 00	2,138,818 71	590,908 43	1,047,910 28	1,547,910 28
Dixie Fire	Greensboro	500,000 00	1,152,101 76	436,713 59	215,388 17	715,388 17
Dubuque Fire and Marine	Dubuque	200,000 00	1,363,468 30	809,161 36	354,306 94	554,306 94
Empire City	New York	400,000 00	1,149,468 80	508,975 08	240,493 72	640,493 72
Equitable Fire and Marine	Providence	400,000 00	1,274,375 37	635,191 54	239,183 83	639,183 83
Franklin	Washington	250,000 00	709,173 26	395,789 45	63,383 81	313,383 81
Fidelity Phenix Fire	New York	2,500,000 00	14,333,423 00	7,605,667 49	4,227,755 51	6,727,755 51
Fire Association	Philadelphia	750,000 00	8,989,219 63	5,733,361 74	2,505,857 89	3,255,857 89
Firemen's	Newark	1,000,000 00	6,375,623 55	2,566,943 85	2,808,679 70	3,808,679 70
Fitchburg Mutual Fire	Fitchburg	*	253,960 97	174,767 61	79,193 36	79,193 36
Franklin Fire	Philadelphia	500,000 00	3,420,239 69	2,153,291 72	766,947 97	1,266,947 97
German Alliance	New York	400,000 00	1,791,812 45	592,239 37	799,573 06	1,199,573 06
German-American	New York	2,000,000 00	20,351,394 88	9,548,981 97	8,802,412 91	10,802,412 91
German Fire	Peoria	200,000 00	800,343 13	404,888 09	195,455 04	395,455 04
German Fire	Pittsburg	300,009 00	1,099,090 84	662,696 53	136,394 31	436,394 31

TABLE No. 34—Continued.

Showing Capital Stock, Total Admitted Assets, Liabilities (except capital), Net Surplus and Surplus as regards policyholders of companies companies, on December 31, 1911.

FIRE AND FIRE AND MARINE COMPANIES.

Name of company.	Location.	Capital stock paid up.	Total admitted assets.	Total liabilities (except capital).	Net surplus.	Surplus as regards policyholders (including capital).
Girard Fire and Marine	Philadelphia	$500,000 00	$2,549,648 58	$1,623,996 90	$425,651 68	$925,651 68
Glens Falls	New York	200,000 00	5,599,801 56	2,678,896 04	2,720,905 52	2,920,905 52
Globe and Rutgers	New York	400,000 00	6,331,707 15	3,312,668 56	2,619,038 59	3,019,038 59
Hamilton Fire	New York	200,004 00	416,745 47	165,715 27	51,026 20	251,030 20
Hanover Fire	New York	1,000,000 00	4,818,183 05	2,635,771 17	1,182,411 88	2,182,411 88
Hartford Fire	Hartford	2,000,000 00	25,449,839 41	15,630,131 93	7,819,707 48	9,819,707 48
Home	New York	3,000,000 00	32,146,564 95	15,331,124 24	13,815,440 71	16,815,440 71
Home	Salt Lake City	300,000 00	927,880 85	93,550 54	534,330 31	834,330 31
Individual Underwriters	New York	*	801,385 68	670,061 50	131,324 18	131,324 18
Insurance Company of North America	Philadelphia	4,000,000 00	16,908,377 36	8,908,377 36	4,000,000 00	8,000,000 00
Indiana Lumbermen's Mutual	Indianapolis	*	1,057,973 60	139,625 58	918,348 02	918,348 02
Insurance Company of State of Pennsylvania	Philadelphia	800,000 00	3,710,952 07	2,471,181 85	439,770 22	1,239,770 22
International Fire	Fort Forth	231,900 00	330,766 87	96,752 52	2,114 35	234,014 35
Jefferson Fire	Philadelphia	250,000 00	1,158,608 00	739,670 05	168,937 95	418,937 95
Lumber	New York	400,000 00	886,654 99	338,895 22	147,759 77	547,759 77
Mechanics' and Traders'	New Orleans	300,000 00	1,385,085 43	621,956 35	463,129 08	763,129 08
Mercantile Fire and Marine	Boston	200,000 00	524,134 84	247,476 22	76,658 62	276,658 62
Merchants Fire	Denver	200,000 00	385,429 86	91,340 74	94,089 12	294,089 12
Merchants Fire	New York	200,000 00	698,628 58	175,511 22	323,117 36	523,117 36
Michigan Commercial	Lansing	400,000 00	1,104,776 10	622,016 43	82,759 67	482,759 67
Michigan Fire and Marine	Detroit	400,000 00	1,459,462 97	692,848 48	366,614 49	766,614 49
Nassau Fire	Brooklyn	200,000 00	840,845 87	413,894 87	226,951 00	426,951 00
National Ben Franklin	Pittsburg	1,000,000 00	3,215,161 03	1,576,330 53	638,830 50	1,638,830 50
National Fire	Hartford	1,000,000 00	11,837,740 27	8,207,464 21	2,630,276 06	3,630,276 06
National Lumber	New York	200,000 00	400,668 03	145,157 60	55,510 43	255,510 43
National Union Fire	Pittsburg	1,000,000 00	3,911,870 88	2,379,775 34	532,095 54	1,532,095 54
New Brunswick Fire	New Brunswick	200,000 00	735,460 19	412,606 77	122,853 42	322,853 42
New Jersey Fire	Newark	400,000 00	841,037 18	190,033 32	251,003 86	651,003 86
New York Reciprocal Underwriters	New York	*	1,699,346 37	558,839 28	1,140,507 09	1,140,507 09
Niagara Fire	New York	1,000,000 00	6,736,192 25	3,260,993 07	2,475,199 18	3,475,199 18
North River	New York	350,000 00	2,389,805 24	1,529,718 23	510,087 01	860,087 01
Northern	New York	350,000 00	1,256,739 57	685,254 00	221,485 57	571,485 57
Northwestern National	Milwaukee	1,000,000 00	6,193,794 83	3,691,286 25	1,502,508 58	2,502,508 58
Northwestern Mutual Fire	Seattle	*	279,546 12	195,492 60	84,053 52	84,053 52

Orient	Hartford	500,000 00	3,350,704 96	1,578,345 50	1,272,359 46	1,772,359 46
Pelican Assurance	New York	200,000 00	726,417 29	304,118 27	222,299 02	422,299 02
Pennsylvania Fire	Philadelphia	750,000 00	7,622,099 09	4,631,620 85	2,240,478 24	2,990,478 24
People's National Fire	Wilmington	1,000,000 00	2,052,136 24	805,166 79	246,969 45	1,246,969 45
Phoenix	Hartford	2,000,000 00	11,404,634 19	5,702,914 85	3,701,719 34	5,701,719 34
Providence Washington	Providence	750,000 00	4,142,911 66	2,533,456 14	859,455 52	1,609,455 52
Queen Insurance Company of America	New York	1,000,000 00	9,558,098 56	4,819,299 67	3,738,798 89	4,738,798 89
Reliance	Philadelphia	400,000 00	1,803,970 45	1,197,406 08	206,564 37	606,564 37
Rhode Island	Providence	300,000 00	1,174,855 62	472,521 59	402,334 03	702,334 03
Security	New Haven	1,000,000 00	3,916,120 37	1,975,833 06	940,287 31	1,940,287 31
Springfield Fire and Marine	Springfield	2,000,000 00	10,407,847 65	5,537,140 04	2,870,707 61	4,870,707 61
Spring Garden	Philadelphia	400,000 00	3,196,135 25	2,454,365 87	341,769 38	741,769 38
St. Paul Fire and Marine	St. Paul	500,000 00	8,032,864 69	5,183,461 90	2,349,402 79	2,849,402 79
Standard Fire	Hartford	500,000 00	1,120,378 83	239,602 83	380,776 00	880,776 00
Sun	New Orleans	500,000 00	1,209,677 50	582,996 19	126,681 31	626,681 31
Teutonia	New Orleans	250,000 00	1,078,671 42	663,517 92	165,153 50	415,153 50
United Firemen's	Philadelphia	400,000 00	1,775,112 20	1,154,969 17	220,143 03	620,143 03
Westchester Fire	New York	300,000 00	4,683,245 09	2,865,245 26	1,517,999 83	1,817,999 83
Total fire and fire and marine		$60,681,904 00	$384,810,150 33	$197,733,686 32	$126,394,560 01	$187,076,464 01

* Mutual company.

TABLE No. 34—Continued.

Showing Capital Stock, Total Admitted Assets, Liabilities (except capital), Net Surplus and Surplus as regards policyholders of companies of other states.

MARINE COMPANIES.

Name of company.	Location.	Capital stock paid up.	Total admitted assets.	Total liabilities (except capital).	Net surplus.	Surplus as regards policyholders (including capital).
American and Foreign Marine	New York	$300,000 00	$992,729 94	$126,930 46	$565,799 48	$865,799 48
Old Colony	Boston	400,000 00	1,231,221 40	422,904 99	408,316 41	808,316 41
Federal	Jersey City	1,000,000 00	3,103,781 85	1,182,781 42	921,000 43	1,921,000 43
Subscribers at United States Lloyds	New York	100,000 00	1,716,819 61	1,100,424 96	516,394 65	616,394 65
Total marine		$1,800,000 00	$7,044,552 80	$2,833,041 83	$2,411,510 97	$4,211,510 97

LIFE COMPANIES.

Name of company.	Location.	Capital stock paid up.	Total admitted assets.	Total liabilities (except capital).	Net surplus.	Surplus as regards policyholders (including capital).
Ætna Life	Hartford	$2,000,000 00	$104,755,535 22	$95,491,648 12	$7,263,887 10	$9,263,887 10
Bankers' Life	Des Moines	*	17,138,235 54	16,786,020 68	352,214 86	352,214 86
Colorado National Life	Denver	Reinsured by Columbia National Life, ceased business in State.				
Columbia Life and Trust	Portland	200,000 00	376,257 25	142,988 19	33,269 06	233,269 06
Columbian National Life	Boston	1,000,000 00	7,418,154 27	5,965,321 79	452,832 48	1,452,832 48
Connecticut Mutual	Hartford	*	68,842,289 60	65,490,593 55	3,351,696 05	3,351,696 05
Equitable Life	New York	100,000 00	503,867,097 17	432,083,505 66	‖71,683,591 51	‖71,783,591 51
Fidelity Mutual Life	Philadelphia	*	24,142,952 22	23,277,713 57	865,238 65	865,238 65
Germania Life	New York	200,000 00	46,786,131 91	44,446,834 10	2,139,297 81	2,339,297 81
Guarantee Fund Life	Omaha	†	619,052 49	12,000 00	----------	----------
Home Life	New York	125,000 00	26,377,420 19	24,388,926 46	1,863,493 73	1,988,493 73
International Life	St. Louis	620,350 00	1,255,110 61	425,203 99	209,556 62	829,906 62
Manhattan Life	New York	100,000 00	21,982,853 54	21,394,639 51	488,214 03	588,214 03
Massachusetts Mutual Life	Springfield	*	64,730,642 31	59,709,650 64	5,020,991 67	5,020,991 67
Metropolitan Life	New York	2,000,000 00	352,785,890 36	320,074,007 49	30,711,882 87	32,711,882 87
Missouri State Life	St. Louis	300,000 00	3,085,122 30	2,495,610 49	289,511 81	589,511 81
Mutual Life	New York	*	587,130,263 05	575,819,642 67	‡11,310,620 38	‡11,310,620 38
Merchants' Life Association	Des Moines	†	603,422 96	302,719 00	----------	----------
Mutual Benefit Life	Newark	*	147,292,307 49	140,984,063 99	‡6,308,243 50	‡6,308,243 50
National Life, United States of America	Chicago	500,000 00	9,616,335 75	8,832,009 77	284,325 98	784,325 98
National Life	Montpelier	*	53,443,227 06	51,114,535 23	2,328,691 83	2,328,691 83
New England Mutual Life	Boston	*	58,440,118 63	53,858,811 65	4,581,306 98	4,581,306 98
New York Life	New York	*	684,684,686 50	675,849,014 18	‡8,835,672 32	‡8,835,672 32
Northwestern Mutual Life	Milwaukee	*	285,575,219 44	279,508,086 41	6,067,133 03	6,067,133 03

Penn Mutual Life	Philadelphia	*	126,487,055 51	121,494,023 86	4,993,031 65	4,993,031 65
Pittsburg Life and Trust	Pittsburg	1,000,000 00	24,042,822 26	21,742,051 12	1,303,771 14	2,303,771 14
Phoenix Mutual Life	Hartford	*	32,322,124 54	31,138,349 41	1,183,775 13	1,183,775 13
Provident Life and Trust	Philadelphia	1,000,000 00	76,513,945 94	67,443,933 13	8,070,012 81	9,070,012 81
Prudential	Newark	2,000,000 00	258,824,973 01	240,688,598 60	16,136,379 41	18,136,379 41
Reliance Life	Pittsburg	1,000,000 00	3,174,314 50	1,899,072 12	275,242 38	1,275,242 38
Scranton Life	Scranton	300,000 00	1,100,404 31	703,713 71	96,690 60	396,690 60
Security Life of America	Richmond	500,000 00	2,246,255 74	1,303,848 59	442,407 15	942,407 15
State Life	Indianapolis	*	10,863,513 16	9,360,558 99	1,502,954 17	1,502,954 17
Travelers'	Hartford	*	63,029,979 31	57,898,534 70	5,131,444 61	5,131,444 61
Union Central Life	Cincinnati	500,000 00	87,237,923 37	84,644,961 17	2,092,962 20	2,592,962 20
Union Mutual Life	Portland	*	18,077,969 46	16,274,383 50	1,803,585 96	1,803,585 96
Total life		$13,445,350 00	$3,774,872,611 97	$3,553,045,576 04	$207,473,929 48	$220,919,279 48

† Assessment company. * Mutual company. ‡ Assigned surplus. ‖ Includes deferred dividend funds. Segregation not possible at issuance of report on account of loss of records in company's conflagration.

TABLE No. 34—Continued.

MISCELLANEOUS.

Name of company.	Location.	Capital stock paid up.	Total admitted assets.	Total liabilities (except capital).	Net surplus.	Surplus as regards policyholders (including capital).
Ætna Accident and Liability	Hartford	$1,000,000 00	$2,364,693 02	$357,788 01	$1,006,905 01	$2,006,905 01
American Bonding	Baltimore	750,000 00	2,601,996 81	1,242,547 29	609,449 52	1,359,449 52
American Casualty	Tacoma	204,175 00	267,001 22	9,098 47	53,727 75	257,902 75
American Credit Indemnity	New York	350,000 00	1,376,326 05	772,093 28	254,232 77	604,232 77
American Fidelity	Montpelier	750,000 00	2,444,827 90	1,620,171 41	74,656 49	824,656 49
American Live Stock	Indianapolis	Ceased business in California during 1911.				
American Surety	New York	2,500,000 00	7,915,678 83	2,154,339 86	3,261,338 97	5,761,338 97
Casualty Company of America	New York	750,000 00	2,801,502 99	1,846,329 79	205,173 20	955,173 20
Continental Casualty	Hammond	300,000 00	2,063,433 02	1,315,236 72	448,196 30	748,196 30
Empire State Surety	New York	500,000 00	1,148,566 23	600,729 95	47,836 28	547,836 28
Equitable Surety	St. Louis	1,000,000 00	1,357,969 42	150,324 76	207,644 66	1,207,644 66
Federal Casualty	Detroit	200,000 00	336,280 46	44,879 95	91,400 51	291,400 51
Fidelity Accident	Saginaw	100,000 00	127,820 40	13,541 45	14,278 95	114,278 95
Fidelity and Casualty	New York	1,000,000 00	10,482,662 48	7,557,225 49	1,925,436 99	2,925,436 99
Fidelity and Deposit	Baltimore	2,000,000 00	7,521,165 54	3,129,629 48	2,391,536 06	4,391,536 06
German Commercial Accident	Philadelphia	100,000 00	167,451 60	79,125 67	*11,674 07	88,325 93
Great Eastern Casualty	New York	250,000 00	784,742 38	343,888 84	190,853 54	440,853 54
Hartford Steam Boiler Inspection and Insurance	Hartford	1,000,000 00	5,045,874 60	2,244,573 06	1,801,301 54	2,801,301 54
Illinois Surety	Chicago	250,000 00	582,710 75	261,777 69	70,933 06	320,933 06
*Indiana and Ohio Live Stock	Crawfordsville	200,000 00	398,849 25	178,806 44	20,042 81	220,042 81
Inter-ocean Life and Casualty	Indianapolis	200,000 00	237,139 93	25,258 67	11,881 26	211,881 26
Lloyds Plate Glass	New York	250,000 00	784,566 00	322,108 39	212,457 61	462,457 61
Loyal Protective	Boston	100,000 00	354,575 90	163,810 94	90,764 96	190,764 96
Maryland Casualty	Baltimore	1,000,000 00	6,319,753 80	4,043,115 80	1,276,638 00	2,276,638 00
Massachusetts Bonding and Insurance	Boston	1,000,000 00	2,209,050 27	629,482 41	579,567 86	1,579,567 86
Medical Protective	Fort Wayne	100,000 00	148,835 41	31,043 32	17,792 09	117,792 09
Metropolitan Casualty	New York	200,000 00	852,016 96	444,132 70	207,884 26	407,884 26
National Casualty	Detroit	200,000 00	326,999 68	46,619 00	80,380 68	280,380 68
National Surety	New York	1,500,000 00	5,988,581 05	2,980,899 88	1,507,681 17	3,007,681 17
New Amsterdam Casualty	New York	314,400 00	1,139,419 03	753,087 04	71,931 99	386,331 99
New Jersey Fidelity and Plate Glass	Newark	300,000 00	699,500 44	310,357 17	89,143 27	389,143 27
New York Plate Glass	New York	200,000 00	935,726 17	409,231 25	326,494 92	526,494 92
North American Accident	Chicago	200,000 00	725,323 58	279,516 96	245,806 62	445,806 62
Pennsylvania Casualty	Scranton	200,000 00	663,045 22	495,900 41	*32,855 19	167,144 81
Philadelphia Casualty	Philadelphia	200,000 00	383,722 46	67,746 94	115,975 52	315,975 52

Preferred Accident	New York	700,000 00	2,727,414 81	1,154,753 31	872,661 50	1,572,661 50
Prudential Casualty	Indianapolis	600,000 00	817,908 58	92,951 37	124,957 21	724,957 21
Ridgely Protective Association	Worcester	100,000 00	361,736 48	60,779 93	200,956 55	300,956 55
Royal Indemnity	New York	1,000,000 00	1,993,848 03	414,138 01	579,710 02	1,579,710 02
Standard Accident	Detroit	500,000 00	4,030,455 03	2,129,876 74	1,400,578 29	1,900,578 29
Southwestern Surety	Durant	523,705 00	1,146,445 29	186,161 65	436,578 64	960,283 64
Title Guaranty and Surety	Scranton	712,820 00	2,071,541 63	882,847 39	475,874 24	1,188,694 24
United States Casualty	New York	500,000 00	2,644,757 55	1,344,757 55	800,000 00	1,300,000 00
United States Fidelity and Guaranty	Baltimore	2,000,000 00	6,798,261 71	3,775,972 45	1,022,289 26	3,022,289 26
United States Health and Accident	Saginaw	300,000 00	966,617 19	261,229 63	405,387 56	705,387 56
Total miscellaneous		$26,105,100 00	$95,116,795 15	$45,227,886 52	$23,783,808 63	$49,888,908 63
Grand total (companies of other states)		$102,032,354 00	$4,261,844,110 25	$3,798,840 190 71	$360,063,809 09	$462,096,163 09

* Impairment of surplus.

TABLE No. 35.

Showing Deposit Capital, Total Admitted Assets, Liabilities (except capital), Net Surplus and Surplus as regards policyholders of Companies of foreign countries on December 31st, 1911, United States Branch.

FIRE AND FIRE AND MARINE.

Name of company.	Home office location.	Deposit capital.	Total admitted assets.	Total liabilities (except capital).	Net surplus.	Surplus as regards policyholders in United States including deposit capital).
Aachen and Munich Fire	Aix-la-Chapelle	$345,000 00	$2,470,162 82	$1,201,124 68	$924,038 14	$1,269,038 14
Atlas Assurance	London	300,000 00	2,529,584 57	1,723,413 78	506,170 79	806,170 79
Caledonian	Edinburgh	325,000 00	2,165,784 98	1,605,335 23	235,449 75	560,449 75
Commercial Union Assurance	London	681,000 00	7,587,440 03	4,777,793 05	2,128,646 98	2,809,646 98
Law Union and Rock	London	236,000 00	846,187 40	485,217 47	124,969 93	360,969 93
Liverpool and London and Globe	Liverpool	400,000 00	13,793,705 42	9,302,531 97	4,091,173 45	4,491,173 45
London Assurance Corporation	London	655,000 00	3,747,331 69	2,520,923 42	571,408 27	1,226,408 27
London and Lancashire Fire	Liverpool	510,000 00	4,424,612 98	2,794,619 20	1,119,993 78	1,629,993 78
New Zealand	Auckland	250,000 00	813,175 37	445,738 31	117,437 06	367,437 06
North British and Mercantile	London	320,000 00	9,135,422 25	5,420,051 68	3,395,370 57	3,715,370 57
Northern Assurance	London	200,000 00	5,303,005 74	3,293,219 47	1,809,786 27	2,009,786 27
Palatine	London	318,000 00	3,429,984 95	1,905,785 44	1,206,199 51	1,524,199 51
Phoenix Assurance	London	310,000 00	3,772,690 06	2,355,711 48	1,106,978 58	1,416,978 58
Prussian National	Stettin	220,000 00	1,914,392 72	1,279,629 11	414,763 61	634,763 61
Royal	Liverpool	450,000 00	11,840,202 74	8,802,643 70	2,587,559 04	3,037,559 04
Scottish Union and National	Edinburgh	300,000 00	5,308,823 34	2,279,678 63	2,729,144 71	3,029,144 71
Sovereign Fire	Toronto	200,000 00	598,977 68	318,816 63	80,161 05	280,161 05
State Assurance	Liverpool	200,000 00	433,283 61	123,293 50	109,990 11	309,990 11
Sun Insurance Office	London	300,000 00	4,519,220 73	3,175,040 77	1,044,179 96	1,344,179 96
Svea Fire and Life	Gothenburg	210,000 00	1,351,410 92	726,977 61	414,433 31	624,433 31
Union Assurance Society	London	200,000 00	678,308 62	331,436 27	146,872 35	346,872 35
Western Assurance	Toronto	407,000 00	2,404,810 30	1,377,501 45	620,308 85	1,027,308 85
Total fire and fire and marine		$7,337,000 00	$89,068,518 92	$56,246,482 85	$25,485,036 07	$32,822,036 07

MARINE.

Name of company.	Home office location.	Deposit capital.	Total admitted assets.	Total liabilities (except capital).	Net surplus.	Surplus as regards policyholders in United States including deposit capital).
Alliance Assurance	London	$250,000 00	$539,799 65	$6,085 87	$283,713 78	$533,713 78
British and Foreign Marine	Liverpool	517,000 00	1,443,346 15	702,645 74	223,700 41	740,700 41
Canton Insurance Office	Hongkong	200,000 00	279,641 53	75,871 95	3,769 58	203,769 58
La Fonciere	Paris	200,000 00	235,059 41	18,432 15	16,627 26	216,627 26
General Marine	Dresden	200,000 00	347,189 64	80,385 18	66,894 46	266,804 46

Indemnity Mutual Marine	London	200,000 00	463,517 15	135,243 77	128,273 38	328,273 38
Mannheim	Mannheim	200,000 00	802,760 00	446,496 92	156,263 09	356,263 09
Marine	London	300,000 00	1,106,129 61	535,262 26	270,867 35	570,867 35
Maritime	Liverpool	200,000 00	364,839 93	152,062 48	12,777 45	212,777 45
Ocean Marine	London	200,000 00	351,543 62	101,297 21	50,246 41	250,246 41
Reliance Marine	Liverpool	200,000 00	364,240 53	89,129 44	75,111 09	275,111 09
Sea	Liverpool	300,000 00	1,585,392 01	1,134,858 15	150,533 86	450,533 86
Standard Marine	Liverpool	332,900 00	1,355,833 64	754,745 55	268,188 09	601,088 09
Switzerland General	Zurich	225,000 00	476,403 18	168,595 59	82,807 59	307,807 59
Thames and Mersey Marine	Liverpool	300,000 00	829,926 40	477,713 84	52,212 56	352,212 56
Union Marine	Liverpool	200,000 00	717,141 70	338,860 83	178,280 87	378,280 87
Yang-tsze	Shanghai	200,000 00	417,835 48	195,299 57	22,535 91	222,535 91
Total marine		$4,224,900 00	$11,680,599 64	$5,412,986 50	$2,042,713 14	$6,267,613 14

MISCELLANEOUS.

Employers' Liability	London	$250,000 00	$6,027,661 57	$4,269,393 99	$1,508,267 58	$1,758,267 58
Frankfort Marine, Accident and Plate Glass	Frankfort	250,000 00	1,490,567 77	1,020,271 36	220,296 41	470,296 41
London Guarantee and Accident	London	500,000 00	3,318,569 01	2,669,836 28	148,732 73	648,732 73
Total miscellaneous		$1,000,000 00	$10,836,798 35	$7,959,501 63	$1,877,296 72	$2,877,296 72
Grand totals (foreign companies))		$12,561,900 00	111,585,916 91	69,618,970 98	29,405,045 93	41,966,945 93

FIRE AND FIRE AND MARINE INSURANCE COMPANIES.

FIRE AND FIRE AND MARINE INSURANCE COMPANIES.

UNITED STATES BRANCH OF THE AACHEN AND MUNICH FIRE INSURANCE COMPANY.

Aix-La-Chapelle, Germany.

Located at No. 84 William Street, New York City.

(Incorporated June 24, 1825. Commenced business in California April 21, 1893.)

JOSEPH A. KELSEY, United States Manager.

Agent for service in California: THOS. J. CONROY, San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year	$2,424,793 97

INCOME.

	Fire.	
Gross premiums	$1,626,065 75	
Deduct gross amount paid for reinsurance, fire, $251,084.40; return premiums, fire, $228,118.91	479,202 31	
Total premiums (other than perpetuals)		$1,086,862 44
Interest on bonds and dividends on stocks	$77,780 04	
Interest from other sources	5,675 89	
Total interest		83,455 93
From home office		8,152 28
Total income		$1,178,470 65
Total		$3,603,264 62

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$662,696 18	
Deduct amount received for salvage, fire, $3,916.56; reinsurance, fire, $107,964.10; discount, fire, $779.46	112,660 12	
Net amount paid for losses		$550,036 06
Expenses of adjustment, settlement of losses		21,202 24
Commissions or brokerage		231,145 95
Allowances to local agencies for miscellaneous agency expenses		283 19
Salaries and expenses of special and general agents		41,914 13
Salaries, fees and other charges of officers, directors, trustees, agents and employees		77,929 83
Rents, including company's occupancy of its own buildings		6,797 31
Advertising, printing and stationery		8,846 58
Postage, telegrams, telephone and express		10,315 24
Legal expenses		71 31
Furniture and fixtures		407 64
Maps, including corrections		4,500 84
Underwriters' boards and tariff associations		14,123 02
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		12,851 14
Inspections and surveys		2,826 97
State taxes on premiums		18,151 81
Insurance department licenses and fees		8,254 73
All other licenses, fees and taxes		7,361 77
Other disbursements: Commercial ratings, $1,354.85; miscellaneous items, $1,045.14; membership fee, Fidelity Insurance Association, $500.00		2,899 99
To home office		53,233 80
Agents' balances charged off		176 06
Loss on sale or maturity of ledger assets		4,750 00
Total disbursements		$1,078,079 61
Balance		$2,525,185 01

LEDGER ASSETS.

Book value of bonds and stocks	$2,162,894 13
Deposits in trust companies and banks on interest	168,955 11
Agents' balances, representing business written subsequent to October 1, 1911	190,808 08
Agents' balances, representing business written prior to October 1, 1911	1,843 66
Bills receivable taken for fire risks	684 03
Total ledger assets	$2,525,185 01

Non-Ledger Assets.

Interest due and accrued on bonds	25,024 63
Gross assets	$2,550,209 64

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1, 1911	$1,843 66	
Bills receivable, past due, taken for marine, inland and fire risks	684 03	
Book value of ledger assets over market value	77,519 13	
Total		80,046 82
Total admitted assets		$2,470,162 82

LIABILITIES.

Losses adjusted and unpaid, due and not due	$1,973 79	
Losses in process of adjustment, or in suspense	107,482 16	
Losses resisted	18,631 78	
Total claims for losses	$128,087 73	
Deduct reinsurance	21,068 14	
Net amount of unpaid losses		$107,019 59
Unearned premiums at 50 per cent on fire risks running one year or less	$342,911 01	
Unearned premiums pro rata on fire risks running more than one year	720,903 32	
Total unearned premiums as computed above		1,063,814 33
Salaries, rents, expenses, bills accounts, fees, etc., due or accrued		9,514 89
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		13,200 00
Commissions, brokerage and other charges due or to become due to agents and brokers		315 00
Return premiums, $769.95; reinsurance premiums, $6,490.92		7,260 87
Total		$1,201,124 68
Surplus over all liabilities	$1,269,038 14	
Surplus to policyholders		1,269,038 14
Total		$2,470,162 82

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$214,577,811	$2,235,845 55
Written during the year	159,245,985	1,626,065 75
Totals	$373,823,796	$3,861,911 30
Expired and terminated	130,449,879	1,442,980 41
In force at end of the year	$243,373,917	$2,418,930 89
Deduct amount reinsured	35,930,794	366,486 72
Net amount in force December 31, 1911	$207,443,123	$2,052,444 17

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$61,174,901	$685,822 02
More than one and not more than three years to run	106,152,863	907,175 39
More than three years to run	40,115,359	459,446 76
Net amount in force December 31, 1911	$207,443,123	$2,052,444 17

MISCELLANEOUS.

Largest amount written on any one risk, not deducting reinsurance	$100,000 00
Losses incurred during the year: Fire	535,481 96

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$906,947 00
Less	621,996 00
Net risks written	284,951 00
Gross premiums received	15,699 44
Less	8,760 02
Net premiums received	6.939 42
Net losses paid	3,481 30
Net losses incurred	3.471 30

ÆTNA INSURANCE COMPANY.

Hartford, Conn.

(Incorporated June, A. D. 1819. Commenced business in California June, 1868.)

William B. Clark, President. Henry E. Rees, Secretary.

Agent for service in California: E. C. Morrison, San Francisco.

CAPITAL.

Capital stock paid in cash	$5,000,000 00	
Amount of ledger assets December 31st of previous year		$19,442,301 32

INCOME.

	Fire.	Marine and inland.	
Gross premiums	$10,354,484 81	$1,837,584 03	
Deduct gross amount paid for reinsurance, fire, $1,397,387.58; marine and inland, $498,301.98; return premiums, fire, $1,189,391.22; marine and inland, $205,124.72	2,586,778 80	703,426 70	
Total premiums (other than perpetuals)	$7,767,706 01	$1,134,157 33	$8,901,863 34
Deposit premiums on perpetual risks			6,803 49
Interest on bonds and dividends on stocks		$813,929 10	
Interest from other sources		25,293 77	
Rents, including company's occupancy of its own buildings		25,250 00	
Total interest and rents			864,472 87
From other sources, viz.:			
Conscience fund		$2,416 00	
Tax on real estate recovered from State of Connecticut		10,666 50	
			13,082 50
Increase in liabilities during the year on account of reinsurance treaties			32,428 55
Agents' balances previously charged off			84 81
Total income			$9,818,735 56
Total			$29,261,036 88

DISBURSEMENTS.

	Fire.	Marine and inland.	
Gross amount paid for losses	$4,877,864 36	$729,705 24	
Deduct amount received for salvage, fire, $53,298.86; marine and inland, $22,303.40; reinsurance, fire, $727,930.76; marine and inland, $205,996.61; discount, fire, $2,776.76	784,006 38	228,300 01	
Net amount paid for losses	$4,093,857 98	$501,405 23	$4,595,263 21
Expenses of adjustment, settlement of losses			45,741 25
Commissions or brokerage			1,704,893 47
Salaries and expenses of special and general agents			311,042 12
Salaries, fees and other charges of officers, directors, trustees, agents and employees			365,287 51
Rents, including company's occupancy of its own buildings			49,385 67
Advertising, printing and stationery			97,478 09
Postage, telegrams, telephone and express			62,264 73
Legal expenses			9,177 40
Furniture and fixtures			19,849 69
Maps, including corrections			16,749 63
Underwriters' boards and tariff associations			87,595 27
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses			14,274 06
Inspections and surveys			56,966 24
Repairs and expenses on real estate			10,115 57
Taxes on real estate			10,119 50
State taxes on premiums			129,713 49
Insurance department licenses and fees			27,959 13
All other licenses, fees and taxes			226,458 39
Other disbursements: Miscellaneous, $37,350.69; paid Munich Reinsurance Company for interest on balance, $18,778.74			56,129 43
Deposit premiums returned			2,632 52
Interest and dividends to stockholders			800,000 00
Agents' balances charged off			501 25
Loss on sale or maturity of ledger assets			27,595 92
Total disbursements			$8,727,193 54
Balance			$20,533,843 34

LEDGER ASSETS.

Book value of real estate		$588,207 93
Book value of bonds and stocks		16,785,333 60
Cash in office		3,892 85
Deposits in trust companies and banks not on interest		62,860 14
Deposits in trust companies and banks on interest		1,540,714 32
Agents' balances, representing business written subsequent to October 1st, last		1,547,730 80
Agents' balances, representing business written prior to October 1st, last		5,103 70
Total ledger assets		$20,533,843 34

Non-Ledger Assets.

Interest due and accrued on bonds	$88,189 72	
Interest due and accrued on other assets	541 31	
Total		88,731 03
Market value of bonds and stocks over book value		1,613,126 97
Gross assets		$22,235,701 34

Gross assets		$22,235,701 34

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$5,103 70	
Book value of ledger assets over market value: Real estate	213,207 93	
		218,311 63
Total admitted assets		$22,017,389 71

LIABILITIES.

Losses adjusted and unpaid, due and not due	$139,578 65	
Losses in process of adjustment, or in suspense	671,737 70	
Losses resisted	45,319 00	
Total claims for losses	$856,635 35	
Deduct reinsurance	242,762 37	
Net amount of unpaid losses		$613,872 98
Unearned premiums at 50 per cent on fire risks running one year or less	$2,153,138 10	
Unearned premiums pro rata on fire risks running more than one year	5,248,184 69	
Unearned premiums at 50 per cent on inland navigation risks	410,544 86	
Unearned premiums at 100 per cent on marine risks	19,487 77	
Total unearned premiums as computed above		7,831,355 42
Amount reclaimable by the insured on perpetual fire insurance policies		105,028 61
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		1,000 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		150,000 00
Balance held for Munich Reinsurance Company under contract		481,937 96
Total		$9,183,194 97
Cash capital	$5,000,000 00	
Surplus over all liabilities	7,834,194 97	
Surplus to policyholders		12,834,194 74
Total		$22,017,389 71

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$1,287,673,974	$15,028,685 21
Written during the year	864,740,143	10,354,484 81
Totals	$2,152,414,117	$25,383,170 02
Expired and terminated	778,774,511	9,564,704 11
In force at end of the year	$1,373,639,606	$15,818,465 91
Deduct amount reinsured	142,751,506	1,704,104 21
Net amount in force	$1,230,888,100	$14,114,361 70

	Marine and inland risks.	Premiums.
In force December 31, 1910	$31,403,826	$779,133 09
Written during the year	216,761,736	1,837,584 03
Totals	$248,165,562	$2,616,717 12
Expired and terminated	199,402,429	1,375,650 61
In force at end of the year	$48,763,133	$1,241,066 51
Deduct amount reinsured	14,277,959	400,489 02
Net amount in force	$34,485,174	$840,577 49

Perpetual risks not included above, $4,740,884; premiums on same, $110,556.43.

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$353,415,528	$2,153,138 10
More than one and not more than three years to run	605,255,516	3,376,389 30
More than three years to run	272,217,056	1,871,795 39
Net amount in force December 31, 1911	$1,230,888,100	$7,401,322 79

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$250,000 00
Losses incurred during the year: Fire, $4,070,833.59; marine and inland, $472,484.13; tornado, $26,017.10	4,569,334 82

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.	Marine and inland.
Gross risks written	$46,287,191 55	$8,703,986 50
Less	10,798,981 58	851,244 90
Net risks written	35,488,209 97	7,852,741 60
Gross premiums received	713,660 15	155,413 07
Less	127,246 50	20,016 05
Net premiums received	586,413 65	135,397 02
Net losses paid	114,699 87	20,574 55
Net losses incurred	127,082 31	27,598 40

AGRICULTURAL INSURANCE COMPANY.

Watertown, N. Y.

(Incorporated 1863. Commenced business in California August 17, 1897.)

W. H. Stevens, President. J. Q. Adams, Secretary.

Agent for service in California: Arthur M. Brown, San Francisco.

CAPITAL.

Capital stock paid in cash	$500,000 00	
Amount of ledger assets, December 31st of previous year		$3,748,050 74

INCOME.

	Fire.	
Gross premiums	$2,587,603 88	
Deduct gross amount paid for reinsurance, fire, $469,691.90; return premiums, fire, $404,920.91	1,712,991 07	
Total premiums (other than perpetuals)		$1,712,991 07
Interest on mortgage loans	36,023 63	
Interest on collateral loans	17,196 26	
Interest on bonds and dividends on stocks	99,403 45	
Interest from other sources	6,427 71	
Rents, including company's occupancy of its own buildings	2,500 00	
Total interest and rents		161,551 05
Loss and gain, deficiency mortgage foreclosure 1890		196 50
Increase in liabilities during the year on account of reinsurance treaties		21,329 68
Agents' balances previously charged off		7 15
Profit on sale or maturity of ledger assets		4,211 75
Increase in book value of ledger assets		2,056 49
Total income		$1,902,343 69
Total		$5,650,394 43

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$1,110,084 50	
Deduct amount received for salvage, fire, $3,940.73; reinsurance, fire, $254,573.30; discount, fire, $1,448.60	259,962 69	
Net amount paid for losses		$850,121 81
Expenses of adjustment, settlement of losses		30,072 01
Commissions or brokerage		374,923 68
Allowances to local agencies for miscellaneous agency expenses		467 34
Salaries and expenses of special and general agents		109,757 37
Salaries, fees and other charges of officers, directors, trustees, agents and employees		57,226 55
Rents, including company's occupancy of its own buildings		4,154 86
Advertising, printing and stationery		20,978 02
Postage, telegrams, telephone and express		13,730 61
Legal expenses		171 19
Furniture and fixtures		2,629 65
Maps, including corrections		5,688 29
Underwriters' boards and tariff associations		28,968 65
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		14,115 86
Inspections and surveys		7,598 37
Taxes on real estate		518 03
Repairs and expenses on real estate		1,336 58
State taxes on premiums		30,752 23
Insurance department licenses and fees		9,334 03
All other licenses, fees and taxes		11,450 78
Audits and insurance publications		1,536 27
Fuel and light		703 11
Office sundries		587 53
Loss and gain, assessment National Union Bank stock, sold 1910		773 90
Interest and dividends to stockholders		75,000 00
Agents' balances charged off		44 10
Loss on sale or maturity of ledger assets		994 33
Decrease in book value of ledger assets		614 97
Total disbursements		$1,654,250 12
Balance		$3,996,144 31

LEDGER ASSETS.

Book value of real estate	$37,084 99
Mortgage loans on real estate	694,219 11
Loans secured by pledge of bonds, stocks or other collaterals	295,989 91
Book value of bonds and stocks	2,318,982 07
Cash in office	4,478 14
Deposits in trust companies and banks on interest	340,509 00
Agents' balances, representing business written subsequent to October 1st, last	300,745 66
Agents' balances, representing business written prior to October 1st, last	4,135 43
Total ledger assets	$3,996,144 31

Non-Ledger Assets.

Interest due and accrued on mortgages	$10,098 57	
Interest due and accrued on bonds	23,363 11	
Interest due and accrued on collateral loans	8,296 39	
Interest due and accrued on other assets	652 87	
Total		42,410 93
Other non-ledger assets: Due from other companies for reinsurance on paid losses		1,588 82
Gross assets		$4,040,144 06

Gross assets		$4,040,144 06

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$4,135 43	
Book value of ledger assets over market value: Real estate, $5,232.33; bonds and stocks, $30.347.57	35,579 90	
Total		$39.715 33
Total admitted assets		$4,000,428 73

LIABILITIES.

Losses adjusted and unpaid, due and not due	$32.349 35	
Losses in process of adjustment, or in suspense	106.067 60	
Losses resisted	15.996 00	
Total claims for losses	$154.412 95	
Deduct reinsurance	28.782 95	
Net amount of unpaid losses		$125.630 00
Unearned premiums at 50 per cent on fire risks running one year or less	$482,390 00	
Unearned premiums pro rata on fire risks running more than one year	1.353,383 36	
Total unearned premiums as computed above		1.835.773 36
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		7,028 48
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		35.000 00
Reinsurance premiums		41.027 07
Reserve for contingencies		150.000 00
Total liabilities, except capital stock		$2,194.458 91
Cash capital	$500.000 00	
Surplus over all liabilities	1.305.969 82	
Surplus to policyholders		1.805.969 82
Total		$4,000,428 73

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$389,759.500	$3.938.029 00
Written during the year	252,596.000	2.587.603 88
Excess of original premiums over amount received for reinsurance	----------	770 00
Totals	$642.355.500	$6.526.402 88
Expired and terminated	225.662.200	2.416.640 88
In force at the end of the year	$416,693.300	$4,109.762 00
Deduct amount reinsured	52.480.300	576.587 00
Net amount in force	$364,213,000	$3.533,175 00

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$88.161.300	$964.780 00
More than one and not more than three years to run	193.089.200	1.726.233 00
More than three years to run	82.962.500	842.162 00
Net amount in force December 31, 1911	$364.213.000	$3.533.175 00

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$100.000 00
Losses incurred during the year: Fire	$41.531 00
Amount loaned to stockholders not officers	16,650 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.	Tornado.
Gross risks written	$13,791,200 00	$845,800 00
Less	4,845,200 00	40,300 00
Net risks written	8,946,000 00	805,500 00
Gross premiums received	225,554 15	844 00
Less	72,908 50	406 00
Net premiums received	152,645 65	438 00
Net losses paid	36,273 23	------------
Net losses incurred	39,967 44	------------

UNITED STATES BRANCH OF THE ALLIANCE ASSURANCE COMPANY, LTD.

London, England.

(Incorporated August 4th, 1884. Commenced business in California in 1892.)

WEED & KENNEDY, United States Managers.

Agent for service in California: E. T. NIEBLING, 343 Sansome St., San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year	$633,914 43

INCOME.

	Fire.	
Gross premiums	$20 13	
Deduct gross amount paid for return premiums, fire	113 83	
Total premiums (other than perpetuals)		$93 70
Interest on mortgage loans	$55 50	
Interest on bonds and dividends on stocks	21,295 00	
Interest from other sources	29 76	
Total interest and rents		21,380 26
From other sources: Received from Home Office, $184,796.18; received from Marine Department, $12,725.40		197,521 58
Total income		$218,808 14
Total		$852,722 57

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses, $14,794.68	$18,385 08	
Deduct amount received for reinsurance, fire	30 03	
Net amount paid for losses		$18,355 05
Expenses of adjustment, settlement of losses		36 27
Commissions or brokerage		25 41
Salaries, fees and other charges of officers, directors, trustees, agents and employees		2,680 00
Legal expeness		5,398 55
Repairs and expenses on real estate		154 55
Taxes on real estate		1,263 22
Other disbursements: Miscellaneous, $229.16; remitted to Home Office, $225,586.02		225,815 18
Total disbursements		$253,677 41
Balance		$599,045 16

LEDGER ASSETS.

Book value of bonds and stocks	$582,620 36
Deposits in trust companies and banks not on interest	3,130 95
Deposits in trust companies and banks on interest	1,290 42
Agents' balances, representing business written prior to October 1st, last	48 48
Reinsurance due from admitted companies for conflagration loss expenses paid	1,954 95
Insurance due from Royal Insurance Company	10,000 00
Total ledger assets	$599,045 16

Non-Ledger Assets.

Interest due and accrued on bonds	3,353 33
Gross assets	$602,398 49

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$48 48	
Book value of ledger assets over market value: Bonds	62,550 36	
Total		$62,598 84
Total admitted assets		$539,799 65

LIABILITIES.

Losses in process of adjustment, or in suspense	$117 50	
Losses resisted	4,850 00	
Net amount of unpaid losses		$4,967 50
Unearned premiums pro rata on fire risks running more than one year		1,118 37
Total liabilities, except capital stock		$6,085 87
Cash capital	$25,000 00	
Surplus over liabilities	283,713 78	
Surplus to policyholders		533,713 78
Total		$539,799 65

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$3,944,572	$40,052 10
Written during the year	---------	20 13
Totals	$3,944,572	$40,072 23
Expired and terminated	2,749,590	28,104 05
In force at end of the year	$1,194,982	$11,968 18
Deduct amount reinsured	76,500	784 44
Net amount in force	$1,118,482	$11,183 74

	Marine and inland risks.	Premiums.
In force December 31, 1910	$552,690	$10,863 85
Written during the year	1,985,020	24,321 31
Totals	$2,537,710	$35,185 16
Expired and terminated	2,103,974	29,026 94
In force at end of the year	$433,736	$6,158 22
Deduct amount reinsured	20,344	420 59
Net amount in force	$413,392	$5,737 63

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Marine and inland.
Gross risks written	$1,985,020 00
Less	102,638 00
Net risks written	1,882,382 00
Gross premiums received	24,321 31
Less	1,894 58
Net premiums received	22,426 73
Net losses paid	2,738 57

THE ALLIANCE INSURANCE COMPANY OF PHILADELPHIA.

Philadelphia, Pa.

(Incorporated December 5, 1904. Commenced business in California Jan. 1, 1905.)

EUGENE L. ELLISON, President. T. HOUARD WRIGHT, Secretary.

Agent for service in California: J. C. JOHNSTON, San Francisco.

CAPITAL.

Capital stock paid in cash	$750,000 00	
Amount of ledger assets December 31st of previous year		$1,859,553 27
Increase of paid-up capital during year		250,000 00
Extended at		$2,109,553 27

INCOME.

	Fire.	Marine and inland.	
Gross premiums	$1,006,549 73	$401,637 77	
Deduct gross amount paid for reinsurance, fire, $155,149.11; marine and inland, $53,544.45; return premiums, fire, $163,413.19; marine and inland, $29,764.49	318,552 30	83,308 94	
Total premiums (other than perpetuals)	$687,987 43	$268,328 83	$956,316 26
Premiums on perpetual risks			2,185 50
Interest on bonds and dividends on stocks		$70,160 83	
Interest from other sources		2,175 18	
Total interest and rents			72,336 01
Perpetual deposit fees			3 90
Profit on sale or maturity of ledger assets			4,349 75
Total income			$1,035,191 42
Total			$3,144,744 69

DISBURSEMENTS.

	Fire.	Marine and inland.	
Gross amount paid for losses	$370,704 33	$229,711 88	
Deduct amount received for salvage, fire, $3,815.43; marine and inland, $10,693.26; reinsurance, fire, $46,663.70; marine and inland, $42,630.13	50,479 13	53,323 39	
Net amount paid for losses	$320,225 20	$176,388 49	$496,613 69
Expenses of adjustment, settlement of losses			6,915 70
Commissions or brokerage			213,415 21
Allowances to local agencies for miscellaneous agency expenses			10,752 20

Salaries and expenses of special and general agents	$18,161 39
Salaries, fees and other charges of officers, directors, trustees, agents and employees	22,350 46
Rents, including company's occupancy of its own buildings	3,866 02
Advertising, printing and stationery	8,569 81
Postage, telegrams, telephone and express	4,564 40
Legal expenses	1,577 57
Furniture and fixtures	140 15
Maps, including corrections	1,308 22
Underwriters' boards and tariff associations	8,890 94
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses	3,704 46
Inspections and surveys	1,033 36
State taxes on premiums	12,963 30
Insurance department licenses and fees	5,984 69
Federal corporation tax	1,651 34
Pennsylvania tax, capital stock	4,555 00
Municipal licenses	2,295 07
Registration of stock	100 00
Deposit premiums returned	34 00
Interest and dividends to stockholders	40,000 00
Scrip or certificates of profits redeemed in cash	194,348 16
Interest paid to scripholders	17,167 60
Agents' balances charged off	856 32
Total disbursements	$1,081,819 06
Balance	$2,062,925 63

LEDGER ASSETS.

Book value of bonds and stocks	$1,803,478 75
Cash in office	184 08
Deposits in trust companies and banks on interest	128,872 99
Agents' balances, representing business written subsequent to October 1st, last	127,342 08
Agents' balances, representing business written prior to October 1st, last	2,147 91
Bills receivable, taken for marine and inland risks	899 82
Total ledger assets	$2,062,925 63

Non-Ledger Assets.

Interest due and accrued on bonds		10,339 55
Salvage claims		2,510 00
Gross assets		$2,075,775 18

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$2,147 91	
Bonds and stocks per schedule	67,071 25	
		69,219 16
Total admitted assets		$2,006,556 02

LIABILITIES.

Losses adjusted and unpaid, due and not due	$1,671 00	
Losses in process of adjustment, or in suspense	117,357 00	
Losses resisted	10,425 00	
Total claims for losses	$129,453 00	
Deduct reinsurance	18,938 00	
Net amount of unpaid losses		$110,515 00
Unearned premiums at 50 per cent on fire risks running one year or less	$221,171 83	
Unearned premiums pro rata on fire risks running more than one year	304,328 55	

Unearned premiums at 50 per cent on inland navigation risks	$41,057 54	
Unearned premiums on marine risks	65,739 22	
Total unearned premiums as computed above		$632,297 14
Amount reclaimable by the insured on perpetual fire insurance policies, 90 per cent		13,073 18
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		6,600 00
Reinsurance premiums		2,045 45
Total liabilities, except capital stock		$764,530 77
Cash capital	$750,000 00	
Surplus over all liabilities	492,025 25	
Surplus to policyholders		1,242,025 25
Total		$2,006,556 02

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$87,627,930	$1,050,149 24
Written during the year	84,360,936	1,006,549 73
Totals	$171,988,866	$2,056,698 97
Expired and terminated	72,711,798	884,784 30
In force at end of the year	$99,277,068	$1,171,914 67
	Marine and inland risks.	Premiums.
Deduct amount reinsured	13,950,780	177,727 90
Net amount in force	$85,326,288	$994,186 77
In force December 31, 1910	$10,088,371	$256,210 26
Written during the year	41,526,770	401,637 77
Totals	$51,615,141	$657,848 03
Expired and terminated	41,387,175	421,401 23
In force at end of the year	$10,227,966	$236,446 80
Deduct amount reinsured	985,216	22,853 28
Net amount in force	$9,242,750	$213,593 52

Perpetual risks not included above, $455,900; premiums on same, $14,525.70.

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$36,150,029	$442,343 66
More than one and not more than three years to run	37,564,558	393,197 28
More than three years to run	11,611,701	158,645 83
Net amount in force December 31, 1911	$85,326,288	$994,186 77

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance, probably	$25,000 00
Losses incurred during the year: Fire, $326,004.20; marine and inland, $176,718.49	502,722 69

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.	Marine and inland.
Gross risks written	$6,207,929 00	$2,661,067 00
Less	1,848,020 00	175,386 00
Net risks written	4,359,909 00	2,485,681 00
Gross premiums received	98,912 93	47,165 80
Less	25,337 22	6,999 38
Net premiums received	73,575 71	40,166 42
Net losses paid	16,406 90	36,570 44
Net losses incurred	16,306 52	38,057 47

AMERICAN CENTRAL INSURANCE COMPANY.

St. Louis, Mo.

Commenced business in California April 15th, 1874.

Edw. T. Campbell, President. B. G. Chapman, Jr, Secretary.

Agent for service in California: Christensen & Goodwin, San Francisco.

CAPITAL.

Capital stock paid in cash	$2,000,000 00	
Amount of ledger assets December 31st of previous year		$5,602,518 15

INCOME.

	Fire.	
Gross premiums	$3,988,250 34	
Deduct gross amount paid for reinsurance, fire, $711,242.96; return premiums, fire, $677,389.68	2,599,617 70	
Total premiums (other than perpetuals)		2,599,617 70
Interest on mortgage loans	$1,794 00	
Interest on collateral loans	24,234 45	
Interest on bonds and dividends on stocks	213,056 83	
Interest from other sources	764 84	
Total interest and rents		239,850 12
Unclaimed dividends		30 00
Profit on sale or maturity of ledger assets		14,926 95
Total income		$2,854,424 77
Total		$8,456,942 92

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$2,116,764 76	
Deduct amount received for salvage, fire, $12,867.20; reinsurance, fire, $423,879.58	436,746 78	
Net amount paid for losses		$1,680,017 98
Expenses of adjustment, settlement of losses		22,175 40
Commissions or brokerage		507,003 44
Allowances to local agencies for miscellaneous agency expenses		70,679 82
Salaries and expenses of special and general agents		135,743 13
Salaries, fees and other charges of officers, directors, trustees, agents and employees		94,200 53
Rents, including company's occupancy of its own buildings		12,149 26
Advertising, printing and stationery		29,903 70
Postage, telegrams, telephone and express		23,973 16
Legal expenses		6,044 69
Furniture and fixtures		2,983 58
Maps, including corrections		7,333 63
Underwriters' boards and tariff associations		27,725 25
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		5,077 97
Inspection and surveys		15,360 47
State taxes on premiums		48,169 41
Insurance department licenses and fees		18,413 01
All other licenses, fees and taxes		8,596 85
Interest and dividends to stockholders		260,000 00
Total disbursements		$2,975,551 28
Balance		$5,481,391 64

LEDGER ASSETS.

Mortgage loans on real estate		$29,900 00
Loans secured by pledge of bonds, stocks or other collaterals		421,900 00
Book value of bonds and stocks		4,413,882 80
Cash in office		13,782 93
Deposits in trust companies and banks not on interest		108,539 80
Deposits in trust companies and banks on interest		40,000 00
Agents' balances, representing business written subsequent to October 1st, last		444,498 25
Agents' balances, representing business written prior to October 1st, last		7,594 95
Bills receivable taken for fire risks		1,292 91
Total ledger assets		$5,481,391 64

Non-Ledger Assets.

Interest due and accrued on mortgages	$358 80	
Interest due and accrued on bonds	23,296 74	
Interest due and accrued on collateral loans	875 00	
Total		$24,530 54
Market value of bonds and stocks over book value		121,753 87
Gross assets		$5,627,676 05

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$7,594 95	
	148,418 67	
Total		156,013 62
Total admitted assets		$5,471,662 43

LIABILITIES.

Losses adjusted and unpaid, due and not due	$58,613 61	
Losses in process of adjustment, or in suspense	252,917 72	
Losses resisted	10,800 00	
Total claims for losses	$322,331 33	
Deduct reinsurance	109,776 09	
Net amount of unpaid losses		$212,555 24
Unearned premiums at 50 per cent on fire risks running one year or less, $1,487,940.	$743,970 21	
Unearned premiums pro rata on fire risks running more than one year, $3,116,529.11	1,621,133 04	
Total unearned premiums as computed above		2,365,103 25
Dividends declared and unpaid, to stockholders		838 48
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		3,595 20
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		30,000 00
Total		$2,612,092 17
Total liabilities, except capital stock		$2,612,092 17
Cash capital	$2,000,000 00	
Surplus over all liabilities	859,570 26	
Surplus to policyholders		2,859,570 26
Total		$5,471,662 43

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$484,746.592	$5,476,670 78
Written during the year	347,564,227	3,988,250 34
Totals	$832,310,819	$9,464,921 12
Expired and terminated	325,222,605	3,882,846 00
In force at end of the year	$507,088,214	$5,582,075 12
Deduct amount reinsured	82,518,807	977,605 58
Net amount in force	$424,569,407	$4,605,469 54

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$100,000 00
Losses incurred during the year: Fire	1,680,017 98
Amount loaned to officers and directors	410,000 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$13,881,156 00
Less	6,390,283 00
Net risks written	7,490,873 00
Gross premiums received	221,062 04
Less	95,427 26
Net premiums received	125,634 78
Net losses paid	38,960 10
Net losses incurred	39,465 26

THE AMERICAN INSURANCE COMPANY OF NEWARK.

Newark, N. J.

(Incorporated February 20, 1846. Commenced business in California, 1883.)

P. L. HOADLEY, President. C. W. BAILEY, Secretary.

Agent for service in California: GORDON & HOADLEY, San Francisco.

CAPITAL.

Capital stock paid in cash	$1,000,000 00	
Amount of ledger assets December 31st of previous year		$9,109,928 76

INCOME.

	Fire.	
Gross premiums	$4,974,915 34	
Deduct gross amount paid for reinsurance, fire, $585,732.86; return premiums, fire, $818,184.18	1,403,917 04	
Total premiums (other than perpetuals)		$3,570,998 30
Interest on mortgage loans	$82,177 76	
Interest on bonds and dividends on stocks	275.860 70	
Interest from other sources	4.758 35	
Rents, including company's occupancy of its own buildings	24.640 53	
Total interest and rents		387,437 34
Sale of right to subscribe to new issue of Pennsylvania Railroad Company's stock		1,164 84
Agents' balances previously charged off		169 17
Total income		$3.959.769 65
Total		$13.069.698 41

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$2,197,214 72	
Deduct amount received for salvage, fire, $7,026.11; reinsurance, fire, $283,090.42	290,116 53	
Net amount paid for losses		$1,907,098 19
Expenses of adjustment, settlement of losses		52,746 24
Commissions or brokerage		878,586 68
Salaries and expenses of special and general agents		94,520 39
Salaries, fees and other charges of officers, directors, trustees, agents and employees		161,106 70
Rents, including company's occupancy of its own buildings		16,181 86
Advertising, printing and stationery		33,812 14
Postage, telegrams, telephone and express		26,440 55
Legal expenses		556 28
Furniture and fixtures		3,657 39
Maps, including corrections		6,880 66
Underwriters' boards and tariff associations		21,566 73
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		28,602 22
Inspections and surveys		21,116 77
Repairs and expenses on real estate		1,250 18
Taxes on real estate		7,613 73
State taxes on premiums		59,351 88
Insurance department licenses and fees		18,891 75
All other licenses, fees and taxes		14,974 88
Other disbursements		22,744 53
Interest and dividends to stockholders		230,054 00
Agents' balances charged off		814 63
Decrease in book value of ledger assets		24,734 22
Total disbursements		$3,633,302 60
Balance		$9,436,395 81

LEDGER ASSETS.

Book value of real estate	$468,000 00
Mortgage loans on real estate	1,658,890 75
Book value of bonds and stocks	6,099,935 84
Cash in office	617 76
Deposits in trust companies and banks not on interest	25,000 00
Deposits in trust companies and banks on interest	295,651 52
Agents' balances, representing business written subsequent to October 1st, last	548,290 95
Agents' balances, representing business written prior to October 1st, last	1,673 04
Bills receivable taken for fire risks	338,335 95
Total ledger assets	$9,436,395 81

Non-Ledger Assets.

Interest due and accrued on mortgages	$22,092 51	
Interest due and accrued on bonds	54,386 68	
Rents due and accrued on company's property	66 66	
Total		$76,545 85
Gross assets		$9,512,941 66

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$1,673 04	
Bills receivable, past due, taken for marine, inland and fire risks	46,303 23	
Market value of stocks and bonds below book value	120,530 84	
Total		168,507 11
Total admitted assets		$9,344,434 55

LIABILITIES.

Losses in process of adjustment, or in suspense	$355,759 23	
Losses resisted	32,900 00	
Total claims for losses	$388,659 23	
Deduct reinsurance	94,087 66	
Net amount of unpaid losses		$294,571 57
Unearned premiums at 50 per cent on fire risks running one year or less	$777,555 23	
Unearned premiums pro rata on fire risks running more than one year	3,735,994 74	
Total unearned premiums as computed above		4,513,549 97
Dividends declared and unpaid, to stockholders, $60,000.00; to policyholders, $105.00		60,105 00
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued, estimated		2,500 00
Estimated amount hereafter payable for federal, state, and other taxes based upon the business of the year of this statement		40,000 00
Commissions, brokerage and other charges due or to become due to agents and brokers		171,159 49
Total liabilities, except capital stock		$5,081,886 03
Cash capital	$1,000,000 00	
Surplus over all liabilities	2,962,548 52	
Surplus to policyholders		3,962,548 52
Total		$9,044,434 55
Special reserve fund held under laws of 1908, page 258 law, State of New Jersey		$300,000 00

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$914,405,959	$9,606,536 94
Written during the year	481,382,947	4,974,915 34
Totals	$1,395,788,906	$14,581,452 28
Expired and terminated	441,472,281	4,712,627 25
In force at end of the year	$954,316,625	$9,868,825 03
Deduct amount reinsured	84,483,053	920,850 40
Net amount in force	$869,833,572	$8,947,974 63

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$145,867,096	$1,555,110 47
More than one and not more than three years to run	429,469,326	3,773,758 13
More than three years to run	294,497,150	3,619,106 03
Net amount in force December 31, 1911	$869,833,572	$8,947,974 63

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

Largest amount written on any one risk not deducting reinsurance	$125,000 00
Losses incurred during the year: Fire	1,892,090 49
Amount loaned to stockholders not officers	93,100 00

MISCELLANEOUS.

	Fire.
Gross risks written	$13,419,858 00
Less	5,195,802 00
Net risks written	8,224,056 00
Gross premiums received	216,522 32
Less	81,532 14
Net premiums received	134,990 18
Net losses paid	47,517 73
Net losses incurred	47,450 69

THE AMERICAN DRUGGISTS' FIRE INSURANCE COMPANY.

Cincinnati, Ohio.

(Incorporated February, 1906. Commenced business in California August, 1910.)

CHAS. H. AVERY, President. FRANK H. FREDERICKS, Secretary.

Agent for service in California: B. C. ANSLEY, Los Angeles.

CAPITAL.

Capital stock paid in cash	$200,000 00	
Amount of ledger assets December 31st of previous year		$293,324 66

INCOME.

	Fire.	
Gross premiums	$83,863 46	
Deduct gross amount paid for return premiums, fire, $2,815.57	81,047 89	
Total premiums (other than perpetuals)		$81,047 89
Interest on bonds and dividends on stocks	11,524 48	
Interest from other sources	64 59	
Total interest and rents		11,589 07
Stock transfer fees		20 00
Agents' balances previously charged off		37 50
Increase in book value of ledger assets		46 93
Total income		$92,741 39
Total		$386,066 05

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$17,921 94	
Deduct amount received for salvage, fire, $282.89	17,639 05	
Net amount paid for losses		$17,639 05
Expenses of adjustment, settlement of losses		609 98
Commissions or brokerage		10,014 41
Salaries and expenses of special and general agents		889 80
Salaries, fees and other charges of officers, directors, trustees, agents and employees		10,416 47
Rents, including company's occupancy of its own buildings		480 00
Advertising, printing and stationery		3,376 58
Postage, telegrams, telephone and express		1,030 91
Legal expenses		10 00
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		161 22
Inspection and surveys		171 61
State taxes on premiums		1,629 64
Insurance department licenses and fees		1,683 69
All other licenses, fees and taxes		464 71
General expenses		878 05
Interest and dividends to stockholders		16,000 00
Decrease in book value of ledger assets		974 44
Total disbursements		$66,430 56
Balance		$319,635 49

LEDGER ASSETS.

Book value of bonds and stocks	$292,822 98
Cash in office	1,090 93
Deposits in trust companies and banks on interest	13,788 68
Agents' balances, representing business written subsequent to October 1st, last	11,371 30
Office furniture and fixtures	561 60
Total ledger assets	$319,635 49

Total ledger assets		$319,635 49

Non-Ledger Assets.

Interest due and accrued on bonds	$4,449 17	
Interest due and accrued on other assets	169 71	
Total		4,618 88
Gross assets		$324,254 37

Deduct Assets Not Admitted.

Furniture, fixtures and safes	$561 60	
Book value of bonds over market value	1,540 08	
Total		2,101 68
Total admitted assets		$322,152 69

LIABILITIES.

Losses in process of adjustment, or in suspense	$1,500 00	
Net amount of unpaid losses		$1,500 00
Unearned premiums at 50 per cent on fire risks running one year or less	$39,824 64	
Unearned premiums pro rata on fire risks running more than one year	2,151 05	
Total unearned premiums as computed above		$41,975 69
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		633 48
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		1,560 34
Commissions, brokerage and other charges due or to become due to agents and brokers		1,475 50
Total liabilities, except capital stock		$47,145 01
Cash capital	$200,000 00	
Surplus over all liabilities	75,007 68	
Surplus to policyholders		275,007 68
Total		$322,152 69

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$6,011,986	$66,296 61
Written during the year	8,110,297	83,863 46
Totals	$14,122,283	$150,160 07
Expired and terminated	6,188,317	66,792 28
In force at end of the year	$7,933,966	$83,367 79
Net amount in force	$7,933,966	$83,367 79

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$7,718,741	$79,649 28
More than one and not more than three years to run	182,425	3,094 06
More than three years to run	32,800	624 45
Net amount in force December 31, 1911	$7,933,966	$83,367 79

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$4,000 00
Losses incurred during the year: Fire	19,139 05

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$276,200 00
Less	2,000 00
Net risks written	274,200 00
Gross premiums received	4,339 52
Less	53 87
Net premiums received	4,285 65
Net losses paid	8 29
Net losses incurred	8 29

AMERICAN UNION FIRE INSURANCE COMPANY.

Philadelphia, Pa.

(Incorporated May 25, 1910. Commenced business in California March 22, 1911.)

JAS. F. STONE, President. R. G. VELLERS, JR., Secretary.

Agent for service in California: A. J. CHAPMAN, San Francisco.

CAPITAL.

Capital stock paid in cash	$500,000 00

INCOME.

	Fire.	
Gross premiums	$1,420,424 92	
Deduct gross amount paid for reinsurance, fire, $174,120.47; return premiums, fire, $209,629.25	1,036,675 20	
Total premiums (other than perpetuals)		$1,036,675 20
Interest on mortgage loans	$2,168 95	
Interest on bonds and dividends on stocks	7,639 77	
Interest from other sources	4,812 46	
Rents, including company's occupancy of its own buildings	579 70	
Total interest and rents		15,200 88
From capital paid up in cash	$500,000 00	
Surplus paid up in cash	373,598 16	
Demand loans	75,000 00	
Monongahela Insurance Company	17,078 41	
		965,676 57
Total income		$2,017,552 65
Total		$2,017,552 65

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$325,900 56	
Deduct amount received for salvage, fire, $396.90; reinsurance, fire, $29,578.84; discount, fire, $354.20	30,329 94	
Net amount paid for losses		$295,570 62
Expenses of adjustment, settlement of losses		7,173 03
Commissions or brokerage		348,421 77
Salaries and expenses of special and general agents		42,798 38
Salaries, fees and other charges of officers, directors, trustees, agents and employees		44,946 14
Rents, including company's occupancy of its own buildings		3,317 60
Advertising, printing and stationery		20,094 48
Postage, telegrams, telephone and express		6,718 41
Legal expenses		3,804 48
Furniture and fixtures		5,289 37

Maps, including corrections	$15,595 59
Underwriters' boards and tariff associations	1,902 58
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses	1,016 26
Inspections and surveys	526 24
Repairs and expenses on real estate	82 92
Taxes on real estate	278 35
State taxes on premiums	7,186 25
Insurance department licenses and fees	13,203 29
Tax on capital	639 40
Interest on loans, $899.30; exchange, $46.49; demand loan repaid, $75,000; incidental office expenses, $3,882.53; traveling expenses of officers, $3,215.56; mortgages expenses, $1,509.53; commissions on sale of securities, $427.50	84,980 91
Loss on sale or maturity of ledger assets	331 00
Total disbursements	$903,877 07
Balance	$1,113,675 58

LEDGER ASSETS.

Book value of real estate	$24,000 00
Mortgage loans on real estate	181,025 00
Book value of bonds and stocks	435,762 62
Cash in office	61 35
Deposits in trust companies and banks on interest	273,745 45
Agents' balances, representing business written subsequent to October 1st, last	196,443 14
Agents' balances, representing business written prior to October 1st, last	633 18
Bills receivable taken for fire risks	1,904 84
Philadelphia Fire Underwriters' Association	100 00
Total ledger assets	$1,113,675 58

Non-Ledger Assets.

Interest due and accrued on mortgages	$5,089 03	
Interest due and accrued on bonds	6,337 71	
Interest due and accrued on other assets	376 25	
Total		11,802 99
Trust funds		1,015 00
Reinsurance due on paid losses		9,731 96
Gross assets		$1,136,225 53

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$633 18	
Bills receivable, past due, taken for marine, inland and fire risks	1,904 84	
Book value of ledger assets over market value	550 12	
Carnegie Trust Company, $6,198.67; Tradesmen Trust Company, $1,319.89	7,518 56	
Total		10,606 70
Total admitted assets		$1,125,618 83

LIABILITIES.

Losses adjusted and unpaid, due and not due	$19,077 74	
Losses in process of adjustment, or in suspense	30,621 16	
Losses resisted	8,281 29	
Total claims for losses	$57,980 19	
Deduct reinsurance	17,137 25	
Net amount of unpaid losses		$40,842 94

Unearned premiums at 50 per cent on fire risks running one year or less	$248,913 14	
Unearned premiums pro rata on fire risks running more than one year	151,539 25	
Total unearned premiums as computed above		$400,452 39
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		245 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		4,000 00
Reinsurance premiums		29,283 71
Total		$474,824 04
Cash capital	$500,000 00	
Surplus over all liabilities	150,794 79	
Surplus to policyholders		650,794 79
Total		$1,125,618 83

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
Written during the year	$105,482,077	$1,420,424 92
Excess of original premiums over amount received for reinsurance		102,307 23
Totals	$105,482,077	$1,522,732 15
Expired and terminated	28,294,793	525,841 41
In force at end of the year	$77,187,284	$996,890 74
Deduct amount reinsured	15,830,788	254,007 38
Net amount in force	$61,356,496	$742,883 36

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$43,216,590	$497,826 29
More than one and not more than three years to run	15,982,477	198,735 93
More than three years to run	2,157,429	46,321 14
Net amount in force December 31, 1911	$61,356,496	$742,833 36

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$31,800 00
Losses incurred during the year: Fire	326,681 60

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$3,016,537 00
Less	585,659 00
Net risks written	2,430,878 00
Gross premiums received	58,203 95
Less	13,627 58
Net premiums received	44,576 37
Net losses paid	4,561 93
Net losses incurred	4,410 13

UNITED STATES BRANCH OF ATLAS ASSURANCE COMPANY, LTD., OF LONDON.

New York, N. Y.

(Incorporated 1808. Commenced business in California, 1886.)

Frank Lock, Manager United States Branch.

Agent for service in California: Frank J. Devlin, San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year	$2,663,648 14

INCOME.

	Fire.	
Gross premiums	$2,456,348 41	
Deduct gross amount paid for reinsurance, fire, $349,700.56; return premiums, fire, $393,727.40	743,427 66	
Total premiums (other than perpetuals)		$1,712,920 75
Interest on bonds and dividends on stocks	$8,286 84	
Interest from other sources	2,714 11	
Rents, including company's occupancy of its own buildings	3,043 13	
Total interest and rents		88,619 08
Agents' balances previously charged off		1,538 02
Total income		$1,803,077 85
Total		$4,466,725 99

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$1,175,481 06	
Deduct amount received for salvage, fire, $15,451.43; reinsurance, fire, $164,887.47; discount, fire, $938.11	181,277 01	
Net amount paid for losses		$994,204 05
Expenses of adjustment, settlement of losses		27,180 74
Commissions or brokerage		333,326 10
Allowances to local agencies for miscellaneous agency expenses		3,658 24
Salaries and expenses of special and general agents		75,800 92
Salaries, fees and other charges of officers, directors, trustees, agents and employees		105,875 93
Rents, including company's occupancy of its own buildings		16,414 41
Advertising, printing and stationery		20,401 49
Postage, telegrams, telephone and express		15,933 57
Legal expenses		608 91
Furniture and fixtures		3,808 86
Maps, including corrections		6,370 24
Underwriters' boards and tariff associations		23,017 81
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		7,969 35
Inspections and surveys		8,333 06
Repairs and expenses on real estate		2,753 45
Taxes on real estate		732 13
State taxes on premiums		32,249 98
Insurance department licenses and fees		11,784 17
All other licenses, fees and taxes		11,449 46
Auditor's fees, $3,099.92; miscellaneous, $7,868.96		10,968 88
Remitted, home office		67,283 56
Agents' balances charged off		110 06
Loss on sale or maturity of ledger assets		666 00
Decrease in book value of ledger assets		150 00
Total disbursements		$1,781,051 37
Balance		$2,685,674 62

LEDGER ASSETS.

Book value of real estate		$83,878 81
Book value of bonds and stocks		2,236,975 04
Cash in office		693 56
Deposits in trust companies and banks on interest		48,398 29
Agents' balances, representing business written subsequent to October 1st, last		307,116 38
Agents' balances, representing business written prior to October 1st, last		8,612 54
Total ledger assets		$2,685,674 62

Non-Ledger Assets.

Interest due and accrued on bonds	$21,555 81	
Rents due and accrued on company's property	230 33	
Total		21,786 14
Due from other companies for reinsurance on losses already paid		32,385 20
Gross assets		$2,739,845 96

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$8,612 54	
Book value of ledger assets over market value, viz.: Stocks and bonds, $177,770.04; real estate, $23,878.81	201,648 85	
Total		210,261 39
Total admitted assets		$2,529,584 57

LIABILITIES.

Losses adjusted and unpaid, due and not due	$4,193 01	
Losses in process of adjustment, or in suspense	148,840 00	
Losses resisted	25,832 68	
Total claims for losses	$178,865 69	
Deduct reinsurance	37,186 14	
Net amount of unpaid losses		$141,679 55
Unearned premiums at 50 per cent on fire risks running one year or less	$544,254 57	
Unearned premiums pro rata on fire risks running more than one year	941,562 87	
Total unearned premiums as computed above		1,485,817 44
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		5,000 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		36,000 00
Reinsurance premiums		54,916 79
Total		$1,723,413 78
Losses, $4,087; unearned premiums, $66,569.06		70,656 06
Total liabilities, except capital stock		$1,652,757 72
Surplus to policyholders		876,826 85
Total		$2,529,584 57

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$304,755,778	$3,144,750 26
Written during the year	243,242,278	2,456,348 41
Excess of original premiums over amount received for reinsurance		1,053 31
Totals	$547,998,056	$5,602,151 98
Expired and terminated	231,434,384	2,261,579 42
In force at end of the year	$316,563,672	$3,340,572 56
Deduct amount reinsured	50,052,934	491,644 50
Net amount in force	$266,510,738	$2,848,928 06

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$102,692,125	$1,088,509 14
More than one and not more than three years to run	120,912,022	1,209,540 30
More than three years to run	42,906,591	550,878 62
Net amount in force December 31, 1911	$266,510,738	$2,848,928 06

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$80,000 00
Losses incurred during the year: Fire	998,680 56

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$18,168,467 00
Less	4,919,729 00
Net risks written	13,248,738 00
Gross premiums received	269,496 21
Less	55,519 13
Net premiums received	213,977 08
Net losses paid	77,556 48
Net losses incurred	72,025 92

AUSTIN FIRE INSURANCE COMPANY.

Dallas, Texas.

(Incorporated June 21, 1902. Commenced business in California October, 1904.)

Geo. W. Jalonick, President. A. F. Pillet, Secretary.

Agent for service in California: John E. Anderson, 243 Sansome Street, San Francisco.

CAPITAL.

Capital stock paid in cash	$250,000 00	
Amount of ledger assets December 31st of previous year		$503,360 84
Increase of paid-up capital during year		40,000 00
Surplus paid in by stockholders		20,000 00
Extended at		$563,360 84

INCOME.

	Fire.	
Gross premiums	$352,327 32	
Deduct gross amount paid for reinsurance, fire, $56,636.51; return premiums, fire, $65,831.67	122,468 18	
Total premiums (other than perpetuals)		$229,859 14
Interest on mortgage loans	$33,178 81	
Rents, including company's occupancy of its own buildings	850 00	
Total interest and rents		34,028 81
Agents' balances previously charged off		18 17
Total income		$283,906 12
Total		$827,266 96

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$170,713 58	
Deduct amount received for reinsurance, fire	21,697 80	
Net amount paid for losses		$149,015 78
Expenses of adjustment, settlement of losses		2,528 60
Commissions or brokerage		47,740 65
Salaries and expenses of special and general agents		7,532 71
Salaries, fees and other charges of officers, directors, trustees, agents and employees		13,673 72
Rents, including company's occupancy of its own buildings		1,160 00
Advertising, printing and stationery		3,316 34
Postals, telegrams, telephone and express		2,312 88
Legal expenses		33 07
Furniture and fixtures		215 79
Maps, including corrections		429 60
Underwriters' boards and tariff associations		381 66
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		485 34
Inspections and surveys		2,209 62
Repairs and expenses on real estate		108 90
Taxes on real estate		127 56
State taxes on premiums		2,597 42
Insurance department licenses and fees		1,802 94
All other licenses, fees and taxes		1,341 38
General expenses		1,081 90
Investment expenses		133 25
Interest—bonds		18 08
Dividends to stockholders		20,458 33
Total disbursements		$258,705 52
Balance		$568,561 44

LEDGER ASSETS.

Book value of real estate	$18,502 38
Mortgage loans on real estate	474,554 58
Cash in office	7,950 19
Deposits in trust companies and banks not on interest	27,287 46
Agents' balances, representing business written subsequent to October 1st, last	40,214 00
Agents' balances, representing business written prior to October 1st, last	52 83
Total ledger assets	$568,561 44

Total ledger assets		$568,561 44

Non-Ledger Assets.

Interest due and accrued on mortgages		13,844 67
Gross assets		$582,406 11

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last		52 83
Total admitted assets		$582,353 28

LIABILITIES.

Losses adjusted and unpaid, due and not due	$3,917 78	
Losses in process of adjustment, or in suspense	18,078 83	
Losses resisted	4,400 00	
Total claims for losses	$26,396 61	
Deduct reinsurance	1,669 20	
Net amount of unpaid losses		$24,727 41
Unearned premiums at 50 per cent on fire risks running one year or less	$109,021 33	
Unearned premiums pro rata on fire risks running more than one year	64,395 51	
Total unearned premiums as computed above		173,416 84
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		1,500 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		3,500 00
Reinsurance premiums		2,091 40
All other liabilities: Reserve for contingencies		10,000 00
Voluntary reserve set aside to care for new term business (1912)		7,000 00
Total liabilities, except capital stock		$222,235 65
Cash capital	$250,000 00	
Surplus over all liabilities	110,117 63	
Surplus to policyholders		360,117 63
Total		$582,353 28

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$24,420,015	$387,759 05
Written during the year	21,673,124	352,327 32
Totals	$46,093,139	$740,086 37
Expired and terminated	22,721,665	339,530 61
In force at end of the year	$23,371,474	$400,555 76
Deduct amount reinsured	3,924,605	65,962 77
Net amount in force	$19,446,869	$334,592 99

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$10,492,992	$167,343 85
More than one and not more than three years to run	8,496,510	167,093 83
More than three years to run	457,365	10,155 31
Net amount in force December 31, 1911	$19,446,867	$334,592 99

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$12,500 00
Losses incurred during the year: Fire	150,510 84
Amount loaned to officers and directors	2,500 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$2,110,316 00
Less	384,012 00
Net risks written	1,726,304 00
Gross premiums received	38,499 07
Less	5,784 19
Net premiums received	32,714 88
Net losses paid	11,230 82
Net losses incurred	12,486 82

CALEDONIAN-AMERICAN INSURANCE COMPANY.

New York, N. Y.

(Incorporated December 24, 1897. Commenced business in California December 21, 1898.)

CHAS. H. POST, President. MILWARD PRAIN, Secretary.

Agent for service in California: THOS. J. CONROY, San Francisco.

CAPITAL.

Capital stock paid in cash	$200,000 00	
Amount of ledger assets December 31st of previous year		$260,857 92

INCOME.

	Fire.	
Gross premiums	$127,690 84	
Deduct gross amount paid for reinsurance, fire, $88,544.76; return premiums, fire, $25,137.44	14,008 64	
Total premiums (other than perpetuals)		$14,008 64
Interest on bonds and dividends on stocks	$9,446 40	
Interest from other sources	96 83	
Total interest and rents		9,543 23
Total income		$23,551 87
Total		$284,409 79

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$77,870 22	
Deduct amount received for salvage, fire, $475.67; reinsurance, fire, $66,215.61; discount, fire, $18.18	66,709 46	
Net amount paid for losses		$11,160 76
Expenses of adjustment, settlement of losses		623 44
Commissions or brokerage		3,425 62
Salaries and expenses of special and general agents		62 02
Salaries, fees and other charges of officers, directors, trustees, agents and employees		453 15
Rents, including company's occupancy of its own buildings		21 68
Advertising, printing and stationery		119 60
Postage, telegrams, telephone and express		72 07
Legal expenses		45 13
Furniture and fixtures		69
Maps, including corrections		20 84
Underwriters' boards and tariff associations		169 19
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		23 98

Inspections and surveys	$28 37
State taxes on premiums	281 92
Insurance department licenses and fees	111 50
Other disbursements: Federal corporation tax, $7.92; county and municipal licenses and taxes, $22.36	30 28
Office expenses, miscellaneous	26 94
Total disbursements	$16,677 18
Balance	$267,732 61

LEDGER ASSETS.

Book value of bonds and stocks	$239,498 99
Cash in office, $13.00; deposits in trust companies and banks not on interest, $1,543.47; deposits in trust companies and banks on interest, $9,725.37	11,281 84
Agents' balances, representing business written subsequent to October 1st, last	13,024 04
Agents' balances, representing business written prior to October 1st, last	217 68
Reinsurance due on losses paid (Caledonian)	3,710 06
Total ledger assets	$267,732 61

Non-Ledger Assets.

Interest due and accrued on bonds	2,265 83
Gross assets	$269,998 44

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$217 68	
Book value of bonds and stocks over market value	5,758 99	
Total		5,976 67
Total admitted assets		$264,021 77

LIABILITIES.

Losses adjusted and unpaid, due and not due	$3,211 42	
Losses in process of adjustment, or in suspense	14,727 47	
Losses resisted	1,520 20	
Total claims for losses	$19,459 09	
Deduct reinsurance	15,902 88	
Net amount of unpaid losses		$3,556 21
Unearned premiums at 50 per cent on fire risks running one year or less	$6,224 91	
Unearned premiums pro rata on fire risks running more than one year	7,112 42	
Total unearned premiums as computed above		13,337 33
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		100 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		200 00
Reinsurance premiums		7,193 88
Reserve for contingencies		500 00
Total liabilities, except capital stock		$24,887 42
Cash capital	$200,000 00	
Surplus over all liabilities	39,134 35	
Surplus to policyholders		239,134 35
Total		$264,021 77

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$17,036,645	$172,125 11
Written during the year	13,269,568	127,690 84
Totals	$30,306,213	$299,815 95
Expired and terminated	13,140,786	136,372 17
In force at end of the year	$17,165,427	$163,443 78
Deduct amount reinsured	14,594,156	137,667 03
Net amount in force	$2,571,271	$25,776 75

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$1,120,526	$12,449 82
More than one and not more than three years to run	1,164,888	10,193 85
More than three years to run	285,857	3,133 08
Net amount in force December 31, 1911	$2,571,271	$25,776 75

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$2,500 00
Losses incurred during the year: Fire	12,959 63

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

Gross risks written	$762,306 00
Less	360,221 00
Net risks written	402,085 00
Gross premiums received	9,536 78
Less	4,383 61
Net premiums received	5,153 17
Net losses paid	3,529 11
Net losses incurred	3,679 11

UNITED STATES BRANCH OF THE CALEDONIAN INSURANCE COMPANY.

Edinburgh, Scotland.

(Incorporated A. D. 1805. Commenced business in California July 24, 1885.)

CHAS. H. POST, President. R. C. CHRISTOPHER, Assistant U. S. Secretary.

Agent for service in California: THOS. J. CONROY, San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year	$2,060,050 19

INCOME.

	Fire.	
Gross premiums	$2,081,192 39	
Deduct gross amount paid for reinsurance, fire, $266,089.27; return premiums, fire, $335,537.02	601,626 29	
Total premiums (other than perpetuals)		$1,479,566 10
Interest on bonds and dividends on stocks	$55,343 95	
Interest from other sources	2,256 69	
Rents, including company's occupancy of its own buildings	49,576 46	
Total interest and rents		107,177 10
Agents' balances previously charged off		47 20
Profit on sale or maturity of ledger assets		1,106 25
Total income		$1,587,896 65
Total		$3,647,946 84

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$887,479 60	
Deduct amount received for salvage, fire, $5,776.24; reinsurance, fire, $125,578.62; discount, fire, $966.51	122,321 37	
Net amount paid for losses		$755,158 23
Expenses of adjustment, settlement of losses		38,510 05
Commissions or brokerage		335,845 98
Salaries and expenses of special and general agents		33,823 64
Salaries, fees and other charges of officers, directors, trustees, agents and employees		91,441 10
Rents, including company's occupancy of its own buildings		9,155 11
Advertising, printing and stationery		10,072 55
Postage, telegrams, telephone and express		12,186 35
Legal expenses		2,079 01
Furniture and fixtures		619 51
Maps, including corrections		4,913 45
Underwriters' boards and tariff associations		14,907 05
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		9,163 05
Inspections and surveys		4,821 16
Repairs and expenses on real estate		19,854 94
Taxes on real estate		7,320 54
State taxes on premiums		22,112 82
Insurance department licenses and fees		7,974 63
All other licenses, fees and taxes		7,852 63
Office expenses and miscellaneous		2,952 51
Remitted to home office		125,034 24
Agents' balances charged off		77 27
Decrease in book value of ledger assets		48 41
Total disbursements		$1,515,924 23
Balance		$2,132,022 61

LEDGER ASSETS.

Book value of real estate		$439,510 58
Book value of bonds and stocks		1,323,102 67
Cash in office		318 34
Deposits in trust companies and banks not on interest		4,156 24
Deposits in trust companies and banks on interest		140,160 27
Agents' balances, representing business written subsequent to October 1st, last		217,297 60
Agents' balances, representing business written prior to October 1st, last		4,369 85
Bills receivable taken for fire risks		6 81
other ledger assets, reinsurance due on losses paid		3,100 25
Total ledger assets		$2,132,022 61

Non-Ledger Assets.

Interest due and accrued on bonds	$8,006 62	
Market value of real estate over book value	85,489 42	
		93,496 04
Gross assets		$2,225,518 65

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$4,369 85	
Bills receivable, past due, taken for marine, inland and fire risks	6 81	
Book value of ledger assets over market value, viz.: book value of bonds and stocks	55,042 67	
Due from unauthorized companies	314 34	
Total		59,733 67
Total admitted assets		$2,165,784 98

LIABILITIES.

Losses adjusted and unpaid, due and not due	$30,410 27	
Losses in process of adjustment, or in suspense	115,666 75	
Losses resisted	23,253 13	
Total claims for losses	$169,330 15	
Deduct reinsurance	28,530 97	
Net amount of unpaid losses		$140,799 18
Unearned premiums at 50 per cent on fire risks running one year or less	$462,443 28	
Unearned premiums pro rata on fire risks running more than one year	939,879 20	
Total unearned premiums as computed above		1,402,322 48
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		2,000 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		25,000 00
Commissions, brokerage and other charges due or to become due to agents and brokers: reinsurance premiums		25,213 57
Reserve for contingencies		10,000 00
Total liabilities, except capital		$1,605,335 23
Surplus to policyholders		560,449 75
Total		$2,165,784 98

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$266,954,592	$2,939,542 65
Written during the year	186,978,737	2,081,192 39
Excess of original premiums over amount received for reinsurance		47,935 03
Totals	$453,933,329	$5,068,670 07
Expired and terminated	172,485,163	1,973,964 17
In force at end of the year	$281,448,166	$3,094,705 90
Deduct amount reinsured	34,546,580	395,165 12
Net amount in force	$246,901,586	$2,699,540 78

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$77,200,424	$924,886 58
More than one and not more than three years to run	119,908,730	1,176,952 83
More than three years to run	49,792,432	597,701 37
Net amount in force December 31, 1911	246,901,586	2,699,540 78

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$92,000 00
Losses incurred during the year: Fire	755,522 33

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$13,487,432 00
Less	6,496,615 00
Net risks written	6,990,817 00
Gross premiums received	224,277 28
Less	89,385 13
Net premiums received	134,892 15
Net losses paid	50,029 33
Net losses incurred	52,949 41
Home office statement shows—	
Capital (paid up)	$537,500 00
Assets	5,439,561 76
Liabilities	2,557,383 23

CALIFORNIA INSURANCE COMPANY.

San Francisco, Cal.

(Incorporated 1861. Commenced business in California, 1905.)

W. E. Dean, President. Geo. W. Brooks, Secretary.

CAPITAL.

Capital stock paid in cash	$400,000 00	
Amount of ledger assets December 31st of previous year		$1,191,919 84

INCOME.

	Fire.	
Gross premiums	$1,247,861 08	
Deduct gross amount paid for reinsurance, fire, $235,432.71; return premiums, fire, $261,813.22	497,245 93	
Total premiums (other than perpetuals)		$750,615 15
Interest on mortgage loans	$19,786 87	
Interest on collateral loans	2,530 63	
Interest on bonds and dividends on stocks	31,626 94	
Interest from other sources	2,741 91	
Rents, including company's occupancy of its own buildings	8,590 00	
Total interest and rents		65,276 35
Profit on sale or maturity of ledger assets		2,198 34
Increase in book value of ledger assets		5,165 90
Total income		$823,255 74
Total		$2,015,175 58

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$350,352 28	
Deduct amount received from reinsurance, fire	73,608 69	
Net amount paid for losses		$276,743 59
Expenses of adjustment, settlement of losses		7,720 84
Commissions or brokerage		136,697 92
Allowances to local agencies for miscellaneous agency expenses		1,684 11
Salaries and expenses of special and general agents		44,862 11
Salaries, fees and other charges of officers, directors, trustees, agents and employees		53,235 86
Rents, including company's occupancy of its own buildings		6,220 97
Advertising, printing and stationery		13,942 64
Postage, telegrams, telephone and express		6,801 11
Legal expenses		533 00
Furniture and fixtures		1,152 62
Maps, including corrections		5,697 01
Underwriters' boards and tariff associations		8,078 56
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		5,272 74
Inspections and surveys		3,698 07
Repairs and expenses on real estate		3,587 63
Taxes on real estate		485 54
State taxes on premiums		6,670 55
Insurance department licenses and fees		6,355 50
All other licenses, fees and taxes		2,121 05
Other disbursements: Auditing, $360.00; investment expenses, $4,573.08; miscellaneous expenses, $289.33; paid stockholders for dividends, $60,000		65,222 41
Agents' balances charged off		383 93
Decrease in book value of ledger assets		36,688 75
Total disbursements		$693,856 51
Balance		$1,321,319 07

LEDGER ASSETS.

Book value of real estate	$92,714 81
Mortgage loans on real estate	391,000 00
Loans secured by pledge of bonds, stocks or other collaterals	48,400 00
Book value of bonds and stocks	500,977 09
Cash in office	8,777 87
Deposits in trust companies and banks not on interest	10,802 77
Deposits in trust companies and banks on interest	65,745 78
Agents' balances, representing business written subsequent to October 1st, last	177,787 88
Agents' balances, representing business written prior to October 1st, last	2,961 21
Bills receivable taken for fire risks	402 50
Maps	13,755 17
Furniture and fixtures	5,493 99
Due from Atlanta-Birmingham Insurance Company	2,500 00
Total ledger assets	$1,321,319 07

Non-Ledger Assets.

Interest due and accrued on mortgages	$1,602 18	
Interest due and accrued on bonds	3,359 16	
Interest due and accrued on collateral loans	70 95	
Interest due and accrued on other assets, banks	401 78	
Total		5,434 07
Market value of real estate over book value		7,285 19
Market value of bonds and stocks over book value		11,540 41
Gross assets		$1,345,578 74

Deduct Assets Not Admitted.

Supplies, printed matter and stationery, maps	$13,755 17	
Furniture, fixtures and safes	5,493 99	
Agents' balances, representing business written prior to October 1st, last	2,961 21	
Bills receivable, past due, taken for marine, inland and fire risks	402 50	
Due from Atlanta-Birmingham Insurance Company	2,500 00	
Total		25,112 87
Total admitted assets		$1,320,465 87

LIABILITIES.

Losses adjusted and unpaid, due and not due	$4,101 83	
Losses in process of adjustment, or in suspense	49,774 78	
Losses resisted	1,885 00	
Total claims for losses	$55,761 61	
Deduct reinsurance	8,076 42	
Net amount of unpaid losses		$47,685 19
Unearned premiums at 50 per cent on fire risks running one year or less	$250,491 07	
Unearned premiums pro rata on fire risks running more than one year	368,913 88	
Total unearned premiums as computed above		619,404 05
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		500 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		9,500 00
Reinsurance premiums		25,239 24
Total liabilities, except capital stock		$702,329 38
Cash capital	$400,000 00	
Surplus over all liabilities	218,136 49	
Surplus to policyholders		618,136 49
Total		$1,320,465 87

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$98,642,371	$1,304,504 57
Written during the year	92,934,901	1,247,861 08
Totals	$191,577,272	$2,552,365 65
Expired and terminated	77,508,180	1,082,933 08
In force at end of the year	$114,069,092	$1,469,432 57
Deduct amount reinsured	22,883,906	322,412 55
Net amount in force	$91,185,186	$1,147,020 02

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$36,365,971	$500,982 14
More than one and not more than three years to run	46,746,072	541,672 84
More than three years to run	8,073,143	104,365 04
Net amount in force December 31, 1911	$91,185,186	$1,147,020 02

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$20,000 00
Losses incurred during the year: Fire	287,112 12
Amount loaned to officers and directors	52,000 00
Amount loaned to stockholders not officers	1,400 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$25,872,741 00
Less	9,854,199 00
Net risks written	16,018,542 00
Gross premiums received	410,987 88
Less	130,552 69
Net premiums received	280,435 19
Net losses paid	68,668 15
Net losses incurred	73,316 17

CAMDEN FIRE INSURANCE ASSOCIATION.

Camden, N. J.

(Incorporated March, 1841. Commenced business in California, 1909.)

EDMUND E. READ, JR., President. JOSEPH K. SHARP, Secretary.

Agent for service in California: MACDONALD & MILES, San Francisco.

CAPITAL.

Capital stock paid in cash	$500,000 00	
Amount of ledger assets December 31st of previous year		$2,448,394 66

INCOME.

	Fire.	
Gross premiums	$1,895,379 12	
Deduct gross amount paid for reinsurance, fire, $205,897.41; return premiums, fire, $383,907.30	589,804 71	
Total premiums (other than perpetuals)		$1,305,574 41
Deposit premiums on perpetual risks		1,478 00
Interest on mortgage loans	$33,872 33	
Interest on collateral loans	1,648 14	
Interest on bonds and dividends on stocks	67,335 02	

Interest from other sources	$1,340 61	
Rents, including company's occupancy of its own buildings	3,318 80	
Total interest and rents		$107,514 90
From other sources, fees		14 00
Brokerage		20 05
Borrowed on note		30,000 00
Profits of Truscott and Sharp Agency		2,058 05
Profit on sale or maturity of ledger assets		75
Total income		$1,446,660 16
Total		$3,895,054 82

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$854,270 79	
Deduct amount received for salvage, fire, $9,882.15; reinsurance, fire, $117,026.79; discount, fire, $1,005.77	127,914 71	
Net amount paid for losses		$726,356 08
Expenses of adjustment, settlement of losses		10,514 72
Commissions or brokerage		340,524 69
Allowances to local agencies for miscellaneous agency expenses		5,760 01
Salaries and expenses of special and general agents		20,020 46
Salaries, fees and other charges of officers, directors, trustees, agents and employees		53,031 20
Rents, including company's occupancy of its own buildings		3,000 00
Advertising, printing and stationery		13,679 68
Postage, telegrams, telephone and express		6,073 65
Legal expenses		1,535 05
Furniture and fixtures		888 27
Maps, including corrections		4,142 79
Underwriters' boards and tariff associations		11,034 77
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		8,445 18
Inspections and surveys		3,927 85
Repairs and expenses on real estate		318 60
Taxes on real estate		647 00
State taxes on premiums		13,831 55
Insurance department licenses and fees		6,389 09
All other licenses, fees and taxes		5,682 12
Other disbursements		34,038 18
Deposit premiums returned		375 00
Interest and dividends to stockholders		59,979 60
Agents' balances charged off		1,789 80
Loss on sale or maturity of ledger assets		1,603 50
Total disbursements		$1,333,588 84
Balance		$2,561,465 98

LEDGER ASSETS.

Book value of real estate	$54,154 36
Mortgage loans on real estate	652,775 00
Loans secured by pledge of bonds, stocks or other collaterals	51,000 00
Book value of bonds and stocks	1,514,993 01
Cash in office	1,562 38
Deposits in trust companies and banks not on interest	1,476 01
Deposits in trust companies and banks on interest	86,136 59
Agents' balances, representing business written subsequent to October 1st, last	199,244 76
Agents' balances, representing business written prior to October 1st, last	23 87
Cash deposit with Philadelphia Underwriters' Association	100 00
Total ledger assets	$2,561,465 98

Total ledger assets		$2,561,465 98

Non-Ledger Assets.

Interest due and accrued on mortgages	$9,254 45	
Interest due and accrued on bonds	15,246 64	
Interest due and accrued on collateral loans	621 02	
Interest due and accrued on other assets	679 02	
Total		25,801 13
Gross assets		$2,587,267 11

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$23 87	
Book value of ledger assets over market value: Bonds and stocks, $19,785.01; real estate, $5,954.36	25,739 37	
Total		25,763 24
Total admitted assets		$2,561,503 87

LIABILITIES.

Losses in process of adjustment, or in suspense	$120,076 00	
Total claims for losses	$120,076 00	
Deduct reinsurance	19,986 42	
Net amount of unpaid losses		$100,089 58
Unearned premiums at 50 per cent on fire risks running one year or less	$425,446 37	
Unearned premiums pro rata on fire risks running more than one year	734,506 96	
Total unearned premiums as computed above		1,159,953 33
Amount reclaimable by the insured on perpetual fire insurance policies		26,688 40
Dividends declared and unpaid, to stockholders		317 90
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		1,002 95
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		20,000,00
All other liabilities: Interest paid in advance (mortgage 583), $25; reserve for future contingencies, $10,000		10,025 00
Total liabilities, except capital stock		$1,318,077 16
Cash capital	$500,000 00	
Surplus over all liabilities	743,426 71	
Surplus to policyholders		1,243,426 71
Total		$2,561,503 87

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$218,942,956	$2,428,226 26
Written during the year	166,192,149	1,895,379 12
Excess of original premiums over amount received for reinsurance		20,456 67
Totals	$385,135,105	$4,344,068 05
Expired and terminated	155,563,000	1,793,244 29
In force at end of the year	$229,578,105	$2,550,817 76
Deduct amount reinsured	23,908,252	287,328 47
Net amount in force	$205,663,853	$2,263,489 29

Perpetual risks not included above, $1,241,566; premiums on same, $29,653,78.

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$69,766,709	$850,892 74
More than one and not more than three years to run	93,304,410	916,535 07
More than three years to run	43,834,300	525,715 26
Net amount in force December 31, 1911	$206,905,419	$2,293,143 07

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$127,000 00
Losses incurred during the year: Fire	713,436 93
Amount loaned to officers and directors	10,600 00
Amount loaned to stockholders not officers	30,000 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$7,149,569 00
Less	1,573,515 50
Net risks written	5,576,053 50
Gross premiums received	103,578 51
Less	24,506 53
Net premiums received	79,071 98
Net losses paid	35,755 29
Net losses incurred	32,930 29

THE CENTRAL MANUFACTURERS' MUTUAL INSURANCE COMPANY.

Van Wert, Ohio.

(Incorporated April 7, 1876. Commenced business in California November 28, 1911.)

H. V. OLNEY, President. C. A. L. PURMORT, Secretary.

Agent for service in California: A. C. BAKER, Los Angeles.

CAPITAL.

Amount of ledger assets December 31st of previous year	$505,833 85

INCOME.

	Fire.	
Gross premiums	$452,550 87	
Deduct gross amount paid for return premiums, fire	76,985 56	
Total premiums (other than perpetuals)		$375,565 31
Interest on mortgage loans	5,126 84	
Interest on bonds and dividends on stocks	12,054 42	
Rents, including company's occupancy of its own buildings	3,116 00	
Total interest and rents		20,297 26
Total income		$395,862 57
Total		$901,696 42

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$202,542 84	
Deduct amount received for salvage, fire, $973.04; discount, fire, $681.18	1,654 22	
Net amount paid for losses		$200,888 62
Expenses of adjustment, settlement of losses		2,281 25
Commissions or brokerage		41,481 71

Salaries and expenses of special and general agents	$5,868 12
Salaries, fees and other charges of officers, directors, trustees, agents and employees	18,906 50
Rents, including company's occupancy of its own buildings	1,200 00
Advertising, printing and stationery	2,369 25
Postage, telegrams, telephone and express	1,393 71
Legal expenses	335 27
Furniture and fixtures	37 25
Maps, including corrections	231 50
Underwriters' boards and tariff associations	132 55
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses	349 34
Inspections and surveys	12,219 09
Taxes on real estate	571 46
State taxes on premiums	4,024 34
Insurance department licenses and fees	979 72
Other disbursements: Van Wert County on personal property, $730.57; fuel and janitor, $847.86; supplies, $256.50; premium on bonds, $680.85; general expenses, $2,353.60	4,869 38
Dividends paid policyholders	61,999 19
Total disbursements	$360,138 25
Balance	$541,558 17

LEDGER ASSETS.

Book value of real estate	$40,000 00
Mortgage loans on real estate	72,875 00
Book value of bonds and stocks	342,300 00
Cash in office	3,531 47
Deposits in trust companies and banks not on interest	36,821 36
Agents' balances, representing business written subsequent to October 1st, last	46,030 34
Total ledger assets	$541,558 17

Non-Ledger Assets.

Interest due and accrued on mortgages	$1,386 82	
Interest due and accrued on bonds	3,305 72	
Total		4,692 54
Market value of bonds and stocks over book value		2,438 00
Total admitted assets		$548,688 71

LIABILITIES.

Losses in process of adjustment, or in suspense	$17,196 60	
Losses resisted	2,500 00	
Total claims for losses		$19,969 60
Unearned premiums at 50 per cent on fire risks running one year or less	$178,991 55	
Unearned premiums pro rata on fire risks running more than one year	7,799 72	
Total unearned premiums as computed above		186,791 27
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		200 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		4,800 00
Commission, brokerage and other charges due or to become due to agents and brokers		2,480 50
Total liabilities		$213,968 37
Surplus over all liabilities		334,720 34
Total		$548,688 71

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$24,106,078	$331,887 01
Written during the year	31,136,909	452,550 87
Totals	$55,242,987	$784,437 88
Expired and terminated	30,143,401	416,444 21
In force at end of the year	$25,099,586	$367,993 67
Net amount in force	$25,099,586	$367,993 67

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$24,513,173	$357,983 10
More than one and not more than three years to run	419,963	7,561 20
More than three years to run	166,450	2,449 37
Net amount in force December 31, 1911	$25,099,586	$367,993 67

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$25,000 00
Losses incurred during the year: Fire	200,608 69

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$73,300 00
Less	18,000 00
Net risks written	55,300 00
Gross premiums received	1,024 95
Less	129 20
Net premiums received	895 75

CITIZENS INSURANCE COMPANY OF MISSOURI.

St. Louis, Mo.

(Incorporated 1837. Commenced business in California, 1901.)

CHARLES E. CHASE, President. P. O. CROCKER, Secretary.

Agent for service in California: PALACHE & HEWITT, San Francisco.

CAPITAL.

Capital stock paid in cash	$200,000 00	
Amount of ledger assets December 31st of previous year		$885,712 99

INCOME.

	Fire.	Marine and inland.	
Gross premiums	$2,134,269 96	$153 37	
Deduct gross amount paid for reinsurance, fire, $1,277,946.73; marine and inland, $95.85; return premiums, fire, $315,054.40	1,593,001 13	95 85	
	$541,268 83	$47 52	
Total premiums (other than perpetuals)			541,326 35
Interest on mortgage loans		$4,604 15	
Interest on bonds and dividends on stocks		24,685 41	
Interest from other sources		1,128 31	
Total interest and rents			30,417 87
Total income			$571,744 22
Total			$1,457,457 21

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$1,166,077 17	
Deduct amount received for salvage, fire, $22,048.68; reinsurance, fire, $799,640.91	821,689 59	
Net amount paid for losses		$344,387 58
Expenses of adjustment, settlement of losses		5,897 51
Commissions or brokerage		96,193 76
Salaries and expenses of special and general agents		39,687 60
Salaries, fees and other charges of officers, directors, trustees, agents and employees		18,886 79
Rents, including company's occupancy of its own buildings		2,898 60
Advertising, printing and stationery		4,190 96
Postage, telegrams, telephone and express		7,577 91
Legal expenses		534 98
Furniture and fixtures		42 28
Maps, including corrections		204 98
Underwriters' boards and tariff associations		9,245 63
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		2,993 58
Inspections and surveys		1,646 58
State taxes on premiums		11,631 93
Insurance department licenses and fees		4,855 07
All other licenses, fees and taxes		5,169 99
Other disbursements: Commercial ratings, $459.79; toilet supplies, ice and water, $121.56; insurance of all kinds, $31.30		612 65
Interest and dividends to stockholders		24,000 00
Agents' balances charged off		215 69
Total disbursements		$580,874 07
Balance		$876,583 14

LEDGER ASSETS.

Mortgage loans on real estate		$97,200 00
Book value of bonds and stocks		570,493 75
Cash in office		113 72
Deposits in trust companies and banks not on interest		31,501 10
Deposits in trust companies and banks on interest		120,640 34
Agents' balances, representing business written subsequent to October 1st, last		55,731 17
Agents' balances, representing business written prior to October 1st, last		903 06
Total ledger assets		$876,583 14

Non-Ledger Assets.

Interest due and accrued on mortgages	$1,171 16	
Interest due and accrued on bonds	8,895 14	
Total		10,066 30
Gross assets		$886,649 44

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$903 06	
Book value of ledger assets over market value	13,048 75	
Total		13,951 81
Total admitted assets		$872,697 63

LIABILITIES.

Losses adjusted and unpaid, due and not due	$48,105 96	
Losses in process of adjustment, or in suspense	121,146 99	
Losses resisted	10,557 21	
Total claims for losses	$179,810 16	
Deduct reinsurance	129,990 58	
Net amount of unpaid losses		$49,819 58
Unearned premiums at 50 per cent on fire risks running one year or less	$191,046 08	
Unearned premiums pro rata on fire risks running more than one year	266,244 42	
Total unearned premiums as computed above		457,290 50
Total liabilities, except capital stock		$512,285 08
Estimated amount hereafter payable for federal, state and other taxes, based upon the business of the year of this statement		5,175 00
Cash capital	$200,000 00	
Surplus over all liabilities	160,412 55	
Surplus to policyholders		360,412 55
Total		$872,697 63

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$233,215,566	$2,896,729 59
Written during the year	170,677,188	2,134,269 96
Totals	$403,892,754	$5,030,999 55
Expired and terminated	179,954,651	2,211,588 08
In force at end of the year	$223,938,103	$2,819,411 47
Deduct amount reinsured	149,471,820	1,944,458 25
Net amount in force	$74,466,283	$874,953 22

	Marine and inland risks.	Premiums.
Written during the year	$32,174	$153 37

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$29,721,478	$382,092 15
More than one and not more than three years to run	34,215,596	364,265 39
More than three years to run	10,529,209	128,595 68
Net amount in force December 31, 1911	$74,466,283	$874,953 22

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$25,000 00
Losses incurred during the year: Fire	342,701 07

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$6,531,905 00
Less	2,298,810 00
Net risks written	4,233,095 00
Gross premiums received	115,220 32
Less	36,411 45
Net premiums received	78,808 87
Net losses paid	41,230 26
Net losses incurred	40,591 98

CITY OF NEW YORK INSURANCE COMPANY.

New York, N. Y.

(Incorporated 1905. Commenced business in California 1910.)

MAJOR A. WHITE, President. J. CARROLL FRENCH, Secretary.

Agent for service in California: WATSON & TAYLOR, San Francisco.

CAPITAL.

Capital stock paid in cash	$500,000 00	
Amount of ledger assets December 31st of previous year		$1,512,980 99

INCOME.

	Fire.	
Gross premiums	$1,081,166 84	
Deduct gross amount paid for reinsurance, fire, $248,162.80; return premiums, fire, $222,600.11	470,762 19	
Total premiums (other than perpetuals)		$610,403 73
Interest on mortgage loans	$11,336 11	
Interest on bonds and dividends on stocks	41,441 35	
Interest from other sources	1,686 28	
Total interest and rents		54,463 74
Agents' balances previously charged off		6 68
Profit on sale or maturity of ledger assets		15,135 50
Total income		$680,009 65
Total		$2,192,990 64

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$458,010 47	
Deduct amount received for salvage, fire, $3,277.91; reinsurance, fire, $143,526.85; discount, fire, $650.85	147,455 61	
Net amount paid for losses		$310,554 86
Expenses of adjustment, settlement of losses		6,684 86
Commissions or brokerage		125,428 70
Salaries and expenses of special and general agents		24,475 43
Salaries, fees and other charges of officers, directors, trustees, agents and employees		64,053 75
Rents, including company's occupancy of its own buildings		11,549 62
Advertising, printing and stationery		7,021 13
Postage, telegrams, telephone and express		6,440 25
Legal expenses		170 25
Furniture and fixtures		2,828 47
Maps, including corrections		3,610 62
Underwriters' boards and tariff associations		4,951 23
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		3,845 84
Inspections and surveys		1,746 05
State taxes on premiums		12,325 98
Insurance department licenses and fees		6,266 36
All other licenses, fees and taxes		3,004 38
Other disbursements		3,077 47
Interest and dividends to stockholders		50,000 00
Agents' balances charged off		41 94
Loss on sale or maturity of ledger assets		954 50
Total disbursements		$649,031 69
Balance		$1,543,958 95

LEDGER ASSETS.

Mortgage loans on real estate		$246,000 00
Book value of bonds and stocks		1,062,201 63
Cash in office		5,938 54
Deposits in trust companies and banks not on interest		6,939 32
Deposits in trust companies and banks on interest		57,440 51
Agents' balances, representing business written subsequent to October 1st, last		160,487 39
Agents' balances, representing business written prior to October 1st, last		4,951 56
Total ledger assets		$1,543,958 95

Non-Ledger Assets.

Interest due and accrued on mortgages	$1,957 50	
Interest due and accrued on bonds	5,395 83	
Total		7,353 33
Gross assets		$1,551,312 28

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$4,951 56	
Stocks and bonds	82,151 63	
Total		87,103 19
Total admitted assets		$1,464,209 09

LIABILITIES.

Losses adjusted and unpaid, due and not due	$3,538 00	
Losses in process of adjustment, or in suspense	54,633 00	
Losses resisted	11,460 00	
Total claims for losses	$69,631 00	
Deduct reinsurance	20,739 86	
Net amount of unpaid losses		$48,891 14
Unearned premiums at 50 per cent on fire risks running one year or less	$190,796 47	
Unearned premiums pro rata on fire risks running more than one year	323,677 86	
Total unearned premiums as computed above		514,474 33
Dividends declared and unpaid, to policyholders		12,500 00
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		1,000 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		7,500 00
Reinsurance premiums		51,581 97
Total liabilities, except capital stock		$635,947 44
Cash capital	$500,000 00	
Surplus over all liabilities	328,261 65	
Surplus to policyholders		828,261 65
Total		$1,464,209 09

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$107,465,106	$1,053,562 37
Written during the year	111,810,978	1,081,166 64
Totals	$219,276,084	$2,134,729 01
Expired and terminated	82,618,520	818,732 41
In force at end of the year	$136,657,564	$1,315,996 60
Deduct amount reinsured	39,277,352	384,261 61
Net amount in force	$97,380,212	$931,734 99

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$75,000 00
Losses incurred during the year: Fire	327,918 19

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$2,787,009 00
Less	482,203 00
Net risks written	2,304,800 00
Gross premiums received	42,347 92
Less	7,336 62
Net premiums received	35,011 30
Net losses paid	1,357 19
Net losses incurred	1,436 19

UNITED STATES BRANCH OF THE COMMERCIAL UNION ASSURANCE COMPANY, LTD.

of London, England.

Located in United States, corner of Pine and William sts., New York, N. Y.

(Incorporated September 28, 1861. Commenced business in California June 22, 1870.)

A. H. WRAY, Manager.

Agent for service in California: E. T. NIEBLING, San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year	$7,367,797 83

INCOME.

	Fire.	Marine and inland.	
Gross premiums	$5,786,286 07	$1,416,348 99	
Deduct gross amount paid for reinance, fire, $691,092.50; marine and inland, $612,744.52; return premiums, fire, $1,062,935.28; marine and inland, $175.617.36	$1.754,027 78	$788.461 88	
Total premiums (other than perpetuals)	$4.032.258 29	$627.987 11	$4.660.245 40
Deposit premiums on perpetual risks			765 97
Interest on mortgage loans		545 00	
Interest on bonds and dividends on stocks		218.151 52	
Rents, including company's occupancy of its own buildings		66.536 52	
Total interest and rents			285.233 04
Received from Home Office			176.545 94
Total income			$5.122.790 35
Total			$12.490,588 18

DISBURSEMENTS.

	Fire.	Marine and inland.	
Gross amount paid for losses	$2.529.936 05	$697.045 65	
Deduct amount received for salvage, fire, $31,593.03; marine and inland, $81,307.85; reinsurance, fire, $186,092.59; marine and inland, $299,896.87	217.685 62	381.204 72	
Net amount paid for losses	$2.312.250 43	$315.840 93	$2.628.091 36

Expenses of adjustment, settlement of losses		$65,662 26
Commissions or brokerage		1,028,995 85
Allowances to local agencies for miscellaneous agency expenses		3,923 55
Salaries and expenses of special and general agents		78,523 52
Salaries, fees and other charges of officers, directors, trustees, agents and employees		176,610 62
Rents, including company's occupancy of its own buildings		23,736 24
Advertising, printing and stationery		36,445 82
Postage, telegrams, telephone and express		25,013 42
Legal expenses		6,197 92
Furniture and fixtures		1,371 27
Maps, including corrections		4,945 62
Underwriters' boards and tariff associations		46,392 37
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		34,002 31
Inspections and surveys		22,392 93
Repairs and expenses on real estate		26,033 93
Taxes on real estate		16,663 21
State taxes on premiums		78,553 81
Insurance department licenses and fees		16,165 51
All other licenses, fees and taxes		27,243 88
Remitted to Home Office	$648,054 59	
Exchange	4,787 17	
		652,841 76
Deposit premiums returned		3,649 93
Agents' balances charged off		2,131 69
Decrease in book value of ledger assets		6,860 91
Total disbursements		$5,012,449 69
Balance		$7,478,138 49

LEDGER ASSETS.

Book value of real estate	$698,163 62
Mortgage loans on real estate	23,000 00
Book value of bonds and stocks	5,207,652 12
Cash in office	495 27
Deposits in trust companies and banks not on interest	155,442 32
Deposits in trust companies and banks on interest	315,503 21
Agents' balances, representing business written subsequent to October 1st, last	1,045,790 84
Agents' balances, representing business written prior to October 1st, last	31,879 11
Bills receivable, taken for marine and inland risks	212 00
Total ledger assets	$7,478,138 49

Non-Ledger Assets.

Interest due and accrued on mortgages	$466 25	
Interest due and accrued on bonds	68,745 00	
Rents due and accrued on company's property	9,237 14	
Total		78,448 39
Market value of real estate over book value		189,836 38
Gross assets		$7,746,423 26

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$31,879 11	
Bills receivable, past due, taken for marine, inland and fire risks	212 00	
Bonds and stocks	126,892 12	
Special deposits to secure liabilities in Virginia, Georgia and New Mexico	70,340 00	
Total		229,323 23
Total admitted assets		$7,517,100 03

LIABILITIES.

Losses adjusted and unpaid, due and not due	$51,480 95	
Losses in process of adjustment, or in suspense	497,652 96	
Losses resisted	44,394 00	
Total claims for losses	$593,527 91	
Deduct reinsurance	100,257 57	
Net amount of unpaid losses		$493,270 34
Unearned premiums at 50 per cent on fire risks running one year or less	$1,537,654 84	
Unearned premiums pro rata on fire risks running more than one year	2,206,018 96	
Unearned premiums at 50 per cent on inland navigation risks	79,325 11	
Unearned premiums at ---- per cent on marine risks	76,986 24	
Total unearned premiums as computed above		3.899.985 15
Amount reclaimable by the insured on perpetual fire insurance policies		91,723 05
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		25,708 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		89,126 00
Commissions, brokerage and other charges due or to become due to agents and brokers		102,708 00
Return premiums, $15,530; reinsurance premiums, $59,742.51		75,272 51
Total		$4.777.793 05
Losses, $13.040; unearned premiums, $187,704.82		200,744 82
Total liabilities, except capital stock		$4.577.048 23
Surplus to policyholders		2.940.051 80
Total		$7,517,100 03

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$751,575,630	$7,589,785 20
Written or renewed in 1911	590,014,465	5,786,286 07
Excess of original premiums over amount received for reinsurance		138,968 75
Totals	$1,341,590,095	$13,515,040 02
Deduct expirations and cancellations	559,704,239	5,525,330 21
In force December 31, 1911	$781,885,856	$7,989,709 81
Deduct amount reinsured	71,917,352	709,054 35
Net amount in force	$709,968,504	$7,280,655 46

	Marine and inland risks.	Premiums.
In force December 31, 1910	$32,498,685	$470,156 75
Written or renewed in 1911	534,240,958	1,416,348 99
Totals	$566,739,643	$1,886,505 74
Deduct expirations and cancellations	545,060,499	1,529,443 93
In force December 31, 1911	$21,679,144	$357,061 81
Deduct amount reinsured	6,357,745	60,330 94
Net amount in force	$15,321,399	$296,730 87

Perpetual risks not included above, $4,771,787; deposit premiums on same, $101,914.50.

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$250,000 00
Losses incurred during the year: Fire, $2,266,009.29; marine and inland, $136,693.20; tornado, $136,314.90	2,539,017 39

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.	Marine and inland.
Gross risks written	$16,757,568 00	$55,584,711 00
Less	5,518,666 00	2,112,026 00
Net risks written	11,238,902 00	53,472,685 00
Gross premiums received	235,730 58	63,934 16
Less	62,349 68	27,869 53
Net premiums received	173,380 90	36,064 63
Net losses paid	64,043 23	22,712 17
Net losses incurred	67,468 43	23,257 17

THE COMMERCIAL UNION FIRE INSURANCE COMPANY OF NEW YORK.

New York, N. Y.

(Incorporated October 30, 1890. Commenced business in California June 1, 1896.)

A. H. Wray, President. C. J. Holman, Secretary.

Agent for service in California: E. T. Niebling, San Francisco.

CAPITAL.

Capital stock paid in cash	$200,000 00	
Amount of ledger assets December 31st of previous year		$893,786 98

INCOME.

	Fire.	
Gross premiums	$625,938 64	
Deduct gross amount paid for reinsurance, fire, $139,406.27; return premiums, fire, $120,805.81	365,726 56	
Total premiums (other than perpetuals)		$365,726 56
Interest on bonds and dividends on stocks	$29,650 77	
Interest from other sources	463 69	
Total interest and rents		30,114 46
Profit on sale or maturity of ledger assets		736 75
Total income		$396,577 77
Total		$1,290,364 75

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$282,147 92	
Deduct amount received for salvage, fire, $5,316.05; reinsurance, fire, $88,117.91	93,433 96	
Net amount paid for losses		$188,713 96
Expenses of adjustment, settlement of losses		2,915 28
Commissions or brokerage		79,701 63
Salaries and expenses of special and general agents		5,202 88
Salaries, fees and other charges of officers, directors, trustees, agents and employees		5,574 04
Advertising, printing and stationery		2,497 48
Postage, telegrams, telephone and express		1,422 70
Maps, including corrections		549 94
Underwriters' boards and tariff associations		3,467 23
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		4,122 95
Inspections and surveys		1,591 38

State taxes on premiums	$5,644 00
Insurance department licenses and fees	2,397 81
All other licenses, fees and taxes	2,712 97
Exchange	293 42
Interest and dividends to stockholders	20,000 00
Decrease in book value of ledger assets	29,775 60
Total disbursements	$356,583 33
Balance	$933,781 42

LEDGER ASSETS.

Book value of bonds and stocks	$776,855 72
Cash in office	16 07
Deposits in trust companies and bank on interest	31,607 59
Agents' balances, representing business written subsequent to October 1st, last	119,600 81
Agents' balances, representing business written prior to October 1st, last	5,701 23
Total ledger assets	$933,781 42

Non-Ledger Assets.

Interest due and accrued on bonds	6,325 00
Gross assets	$940,106 42

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$5,701 23	
Bonds and stocks	9,845 72	
Total		15,546 95
Total admitted assets		$924,559 47

LIABILITIES.

Losses adjusted and unpaid, due and not due	$5,925 00	
Losses in process of adjustment, or in suspense	32,562 00	
Losses resisted	2,850 00	
Total claims for losses	$41,337 00	
Deduct reinsurance	10,313 00	
Net amount of unpaid losses		$31,024 00
Unearned premiums at 50 per cent on fire risks running one year or less	$130,351 93	
Unearned premiums pro rata on fire risks running more than one year	212,014 34	
Total unearned premiums as computed above		342,366 27
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		7,510 90
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		6,400 00
Commissions, brokerage and other charges due or to become due to agents and brokers		9,438 00
Return premiums, $333.19; reinsurance premiums, $17,428.45		17,761 64
Total		$414,500 81
Cash capital	$200,000 00	
Surplus over all liabilities	310,058 66	
Surplus to policyholders		510,058 66
Total		$924,559 47

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$67,758,204	$761,009 47
Written during the year	61,939,777	625,938 64
Totals	$129,697,981	$1,386,948 11
Expired and terminated	49,014,938	550,932 47
In force at end of the year	$80,683,043	$836,015 64
Deduct amount reinsured	16,035,029	192,677 01
Net amount in force	$64,648,014	$643,338 63

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$25,000 00
Losses incurred during the year: Fire	181,767 87

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$2,728,339 00
Less	1,310,734 00
Net risks written	1,417,605 00
Gross premiums received	39,864 77
Less	18,862 85
Net premiums received	21,001 92
Net losses paid	6,198 34
Net losses incurred	7,006 34

COMMONWEALTH FIRE INSURANCE COMPANY.

Dallas, Texas.

(Incorporated July, 1903. Commenced business in California October 25, 1907.)

I. Jalonick, President. J. B. Adone, Secretary.

Agent for service in California: John E. Anderson, San Francisco.

CAPITAL.

Capital stock paid in cash	$250,000 00		
Amount of ledger assets December 31st of previous year		$495,638 34	
Increase of paid-up capital during year		20,000 00	
Surplus paid in by stockholders		10,000 00	
Extended at			$525,638 34

INCOME.

	Fire.	
Gross premiums	$361,318 48	
Deduct gross amount paid for reinsurance, fire, $56,621.93; return premiums, fire, $68,135.73	124,757 66	
Total premiums (other than perpetuals)		$236,560 82
Interest on mortgage loans	31,502 70	
Rents, including company's occupancy of its own buildings	800 00	
Total interest and rents		32,302 70
Increase in book value of ledger assets		268,863 52
Total		$794,501 86

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$171.924 36	
Deduct amount received for reinsurance, fire	30.825 10	
Net amount paid for losses		$141.099 26
Expenses of adjustment, settlement of losses		2.007 26
Commissions or brokerage		50,786 36
Salaries and expenses of special and general agents		7,665 46
Salaries, fees and other charges of officers, directors, trustees, agents and employees		13.431 00
Rents, including company's occupancy of its own buildings		1.160 00
Advertising, printing and stationery		3.205 69
Postage, telegrams, telephone and express		2.591 31
Legal expenses		83 70
Furniture and fixtures		215 76
Maps, including corrections		420 09
Underwriters' boards and tariff associations		1.786 27
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		259 25
Inspections and surveys		668 61
Repairs and expenses on real estate		109 40
Taxes on real estate		17 57
State taxes on premiums		2,240 12
Insurance department licenses and fees		1.084 87
General expense		1.754 90
Interest on bank draft		161 01
Investment expenses		132 75
Interest and dividends to stockholders		23.000 00
Total disbursements		$255.618 76
Balance		$538.883 10

LEDGER ASSETS.

Book value of real estate	$10.000 00
Mortgage loans on real estate	448.461 79
Cash in office	5.410 36
Deposits in trust companies and banks not on interest	35.888 48
Agents' balances, representing business written subsequent to October 1st, last	38.935 05
Agents' balances, representing business written prior to October 1st, last	187 42
Total ledger assets	$538.883 10

Non-Ledger Assets.

Interest due and accrued on mortgages	14.223 17
Other non-ledger assets: Due from reinsuring companies on paid loss	1 66
Gross assets	$553.107 93

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	187 42
Total admitted assets	$552.920 51

LIABILITIES.

Losses adjusted and unpaid, due and not due	$4.397 52	
Losses in process of adjustment, or in suspense	21.542 54	
Total claims for losses	$25.940 06	
Deduct reinsurance	5.697 24	
Net amount of unpaid losses		$20.242 82

Unearned premiums at 50 per cent on fire risks running one year or less	$84,479 08	
Unearned premiums pro rata on fire risks running more than one year	89,875 41	
Total unearned premiums as computed above		$174,354 49
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		1,500 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		3,500 00
Reinsurance premiums		3,101 40
Reserve for contingencies		7,500 00
Total liabilities, except capital stock		$210,198 71
Cash capital	$250,000 00	
Surplus over all liabilities	92,721 80	
Surplus to policyholders		342,721 80
Total		$552,920 51

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$25,725,597	$410,578 61
Written during the year	22,468,021	361,318 48
Totals	$48,193,618	$771,897 09
Expired and terminated	23,725,155	372,440 98
In force at end of the year	$24,468,463	$399,456 11
Deduct amount reinsured	4,106,593	68,335 89
Net amount in force	$20,361,870	$331,120 22

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$13,716,660	$209,525 92
More than one and not more than three years to run	6,193,639	114,826 31
More than three years to run	451,571	6,767 99
Net amount in force December 31, 1911	$20,361,870	$331,120 22

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$20,000 00
Losses incurred during the year: Fire	133,975 95

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$2,110,316 00
Less	384,012 00
Net risks written	1,726,304 00
Gross premiums received	38,499 03
Less	5,784 19
Net premiums received	32,714 88
Net losses paid	11,230 82
Net losses incurred	12,486 82

CONCORDIA FIRE INSURANCE COMPANY.

Milwaukee, Wis.

(Incorporated 1870. Commenced business in California May 9, 1903.)

GUSTAV WOLLAEGER, JR., President. FRANK DAMKOEHLER, Secretary.

Agent for service in California: DICKSON & THIEME, San Francisco.

CAPITAL.

Capital stock paid in cash	$300,000 00	
Amount of ledger assets December 31st of previous year		$1,622,391 99

INCOME.

	Fire.	
Gross premiums	$1,652,903 90	
Deduct gross amount paid for reinsurance, fire $353,535.23; return premiums, fire, $212,144.29	565,679 38	
Total premiums (other than perpetuals)		$1,087,224 38
Interest on mortgage loans	$36,588 28	
Interest on bonds and dividends on stocks	$24,978 28	
Interest from other sources	356 88	
Total interest and rents		61,923 44
Loan at bank (Second Ward Savings Bank, Milwaukee, Wis.)		15,000 00
Agents' balances previously charged off		430 72
Increase in book value of ledger assets		637 50
Total income		$1,165,216 04
Total		$2,787,608 03

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$713,070 61	
Deduct amount received for salvage, fire, $3,215.24; reinsurance, fire, $158,287.90; discount, fire, $1,387.78	162,890 92	
Net amount paid for losses		$550,179 69
Expenses of adjustment, settlement of losses		10,829 43
Commissions or brokerage		286,947 77
Allowances to local agencies for miscellaneous agency expenses		1,292 90
Salaries and expenses of special and general agents		36,112 85
Salaries, fees and other charges of officers, directors, trustees, agents and employees		37,753 27
Rents, including company's occupancy of its own buildings		4,420 00
Advertising, printing and stationery		10,866 64
Postage, telegrams, telephone and express		9,521 00
Legal expenses		3,118 71
Furniture and fixtures		1,559 02
Maps, including corrections		3,644 21
Underwriters' boards and tariff associations		9,629 21
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		11,901 21
State taxes on premiums		25,518 17
Insurance department licenses and fees		5,938 13
All other licenses, fees and taxes		2,367 70
Other disbursements		20,194 42
Interest and dividends to stockholders		30,000 00
Agents' balances charged off		13,562 09
Decrease in book value of ledger assets		2,447 45
Total disbursements		$1,077,803 87
Balance		$1,709,804 16

LEDGER ASSETS.

Mortgage loans on real estate	$707,225 00
Book value of bonds and stocks	643,381 56
Cash in office	18,079 93
Deposits in trust companies and banks not on interest	36,302 26
Deposits in trust companies and banks on interest	32,378 88
Agents' balances, representing business written subsequent to October 1st, last	268,712 64
Agents' balances, representing business written prior to October 1st, last	3,123 89
Western Sprinkler Risk Association, Chicago, Ill., deposit	500 00
Milwaukee Board of Fire Underwriters of Milwaukee, Wis., deposit	100 00
Total ledger assets	$1,709,804 16

Non-Ledger Assets.

Interest due and accrued on mortgages	$6,208 26	
Interest due and accrued on bonds	11,033 20	
Total		17,241 96
Other non-ledger assets		16,610 24
Gross assets		$1,743,656 36

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	3,123 89
Total admitted assets	$1,740,532 47

LIABILITIES.

Losses adjusted and unpaid, due and not due	$36,825 60	
Losses in process of adjustment, or in suspense	41,756 16	
Losses resisted	7,008 49	
Total claims for losses	$85,590 25	
Deduct reinsurance	21,223 30	
Net amount of unpaid losses		$64,366 95
Unearned premiums at 50 per cent on fire risks running one year or less	$312,719 71	
Unearned premiums pro rata on fire risks running more than one year	712,448 13	
Total unearned premiums as computed above		1,025,167 84
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		25,000 00
Commissions, brokerage and other charges due or to become due to agents and brokers		49,163 87
Reinsurance premiums		32,299 30
Total liabilities, except capital stock		$1,195,997 96
Cash capital	$300,000 00	
Surplus over all liabilities	244,534 51	
Surplus to policyholders		544,534 51
Total		$1,740,532 47

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$196,159,487	$2,219,296 26
Written during the year	136,477,725	1,652,903 90
Totals	$332,637,212	$3,872,200 16
Expired and terminated	116,412,227	1,414,053 74
In force at end of the year	$216,224,985	$2,458,146 42
Deduct amount reinsured	38,013,893	507,352 95
Net amount in force	$178,211,092	$1,950,793 47

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$30,000 00
Amount loaned to officers and directors, on mortgage	8,000 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$7,016,734 00
Less	2,584,308 00
Net risks written	4,432,426 00
Gross premiums received	132,902 26
Less	48,177 07
Net premiums received	84,725 19
Net losses paid	26,485 18
Net losses incurred	27,958 76

CONNECTICUT FIRE INSURANCE COMPANY.

Hartford, Conn.

(Incorporated 1846. Commenced business in California 1873.)

J. D. Browne, President. W. T. Howe, Secretary.

Agent for service in California: B. J. Smith, San Francisco.

CAPITAL.

Capital stock paid in cash	$1,000,000 00	
Amount of ledger assets December 31st of previous year		$7,351,203 95

INCOME.

	Fire.	
Gross premiums	$4,990,447 47	
Deduct gross amount paid for reinsurance, fire, $641,746.66; return premiums, fire, $600,404.28	1,242,150 94	
Total premiums (other than perpetuals)		$3,748,296 53
Interest on mortgage loans	$43,730 93	
Interest on collateral loans	4,259 99	
Interest on bonds and dividends on stocks	232,189 95	
Interest from other sources	4,978 92	
Rents, including company's occupancy of its own buildings	11,168 00	
Total interest and rents		296,327 79
Agents' balances previously charged off		52 37
Profit on sales or maturity of ledger assets		770 45
Total income		$4,045,447 14
Total		$11,396,651 09

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$2,707,937 58	
Deduct amount received for salvage, fire, $16,157.19; reinsurance, fire, $427,278.98; discount, fire, $2,747.57	446,183 74	
Net amount paid for losses		$2,261,753 84
Expenses of adjustment, settlement of losses		35,882 95
Commissions or brokerage		796,016 27
Allowances to local agencies for miscellaneous agency expenses		17,598 31
Salaries and expenses of special and general agents		133,993 59

Salaries, fees and other charges of officers, directors, trustees, agents and employees	$199,076 66
Rents, including company's occupancy of its own buildings	29,189 54
Advertising, printing and stationery	55,412 63
Postage, telegrams, telephone and express	20,603 12
Legal expenses	8,806 49
Furniture and fixtures	4,011 51
Maps, including corrections	9,650 16
Underwriters' boards and tariff associations	21,396 60
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses	27,653 98
Inspections and surveys	25,068 85
Repairs and expenses on real estate	831 91
Taxes on real estate	1,864 37
State taxes on premiums	62,432 72
Insurance department licenses and fees	17,900 47
All other licenses, fees and taxes	11,982 24
Interest and dividends to stockholders, $160,000.00; paid tax for stockholders, $30,452.50	190,452 50
Agents' balances charged off	1,990 85
Loss on sale or maturity of ledger assets	2,943 75
Total disbursements	$3,936,513 31
Balance	$7,460,137 78

LEDGER ASSETS.

Book value of real estate	$189,200 00
Mortgage loans on real estate	948,450 00
Loans secured by pledge of bonds, stocks or other collaterals	59,000 00
Book value of bonds and stocks	5,649,100 43
Cash in office	213 86
Deposits in trust companies and banks not on interest	16,403 94
Deposits in trust companies and banks on interest	355,798 08
Agents' balances, representing business written subsequent to October 1st, last	191,979 96
Agents' balances, representing business written prior to October 1st, last	7,713 37
Bills receivable taken for fire risks	42,278 14
Total ledger assets	$7,460,137 78

Non-Ledger Assets.

Interest due and accrued on mortgages	$10,638 93	
Interest due and accrued on bonds	30,080 61	
Interest due and accrued on collateral loans	464 30	
Total		41,183 84
Other non-ledger assets: Gross premiums, in course of collection, not over three months due, $377,000.00; less return premiums, $46,000.00, and reinsurance, $39,000.00	$292,000 00	
Less commission, brokerage and all other expenses thereon	130,000 00	
Total		162,000 00
Gross assets		$7,663,321 62

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$7,713 37	
Bills receivable, past due, taken for marine, inland and fire risks	15,915 41	
Bonds and stocks	122,601 43	
Total		146,230 21
Total admitted assets		$7,517,091 41

LIABILITIES.

Losses adjusted and unpaid, due and not due	$104,427 51	
Losses in process of adjustment, or in suspense	218,475 58	
Losses resisted	48,720 12	
Total claims for losses	$371,623 21	
Deduct reinsurance	70,601 93	
Net amount of unpaid losses		$301,021 28
Unearned premiums at 50 per cent on fire risks running one year or less	$913,740 23	
Unearned premiums pro rata on fire risks running more than one year	3,145,043 51	
Total unearned premiums as computed above		4,058,783 74
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		40,000 00
Total liabilities, except capital stock		$4,399,805 02
Cash capital	$1,000,000 00	
Surplus over all liabilities	2,117,286 39	
Surplus to policyholders		3,117,286 39
Total		$7,517,091 41

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$751,282,948	$8,486,763 73
Written during the year	442,179,005	4,990,447 47
Excess of original premiums over amount received for reinsurance		1,837 86
Totals	$1,193,461,953	$13,479,049 06
Expired and terminated	395,130,666	4,668,906 69
In force at end of the year	$798,331,287	$8,810,142 37
Deduct amount reinsured	78,711,899	944,195 44
Net amount in force	$719,619,388	$7,865,946 93

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$146,306,959	$1,827,480 46
More than one and not more than three years to run	406,355,353	4,053,159 15
More than three years to run	166,957,076	1,985,307 32
Net amount in force December 31, 1911	$719,619,388	$7,865,946 93

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$125,000 00
Losses incurred during the year: Fire	2,203,718 04
Amount loaned to officers and directors	37,500 00
Amount loaned to stockholders not officers	40,000 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$20,824,204 00
Less	4,795,770 00
Net risks written	16,028,434 00
Gross premiums received	327,818 04
Less	59,465 09
Net premiums received	268,352 95
Net losses paid	68,750 74
Net losses incurred	61,688 44

THE CONTINENTAL INSURANCE COMPANY.

New York, N. Y.

(Incorporated January, 1853. Commenced business in California September 1, 1872.)

HENRY EVANS, President. J. E. LOPER, Secretary.

Agent for service in California: A. G. NASON, San Francisco.

CAPITAL.

Capital stock paid in cash	$2,000,000 00	
Amount of ledger assets December 31st of previous year		$24,032,115 36

INCOME.

	Fire.	Marine and inland.	
Gross premiums	$9,808,271 05	$43,187 03	
Deduct gross amount paid for reinsurance, fire, $966,938.91; marine and inland, $12,236.87; return premiums, fire, $1,092,391.12; marine and inland, $5,122.49	2,059,330 03	17,359 36	
Total premiums (other than perpetuals)	$7,748,941 02	$25,827 67	$7,774,768 69
Interest on mortgage loans		$135 00	
Interest on bonds and dividends on stocks		934,413 20	
Interest from other sources		80,058 95	
Rents, including company's occupancy of its own buildings		125,269 86	
Total interest and rents			1,139,877 01
From other sources: Reinstating bills receivable, not more than five years past due, previously charged off. Item included in "Assets" and deducted in "Assets" not admitted			94,993 18
Increase in liabilities during the year on account of reinsurance treaties			17,476 20
Agents' balances previously charged off			1,911 47
Profit on sale or maturity of ledger assets			367,549 00
Increase in book value of ledger assets			332,277 00
Total income			$9,728,852 55
Total			$33,760,968 41

DISBURSEMENTS.

	Fire.	Marine and inland.	
Gross amount paid for losses	$4,265,302 17	$1,262 80	
Deduct amount received for salvage, fire, $17,024.54; reinsurance, fire, $426,854.59; discount, fire, $14.81	443,893 94		
Net amount paid for losses	$3,821,408 23	$1,262 80	$3,822,671 03
Expenses of adjustment, settlement of losses			112,774 60
Commissions or brokerage			1,654,762 80
Allowances to local agencies for miscellaneous agency expenses			3,745 25
Salaries and expenses of special and general agents			237,831 18
Salaries, fees and other charges of officers, directors, trustees, agents and employees			448,582 35
Rents, including company's occupancy of its own buildings			71,523 92
Advertising, printing and stationery			93,258 54
Postage, telegrams, telephone and express			69,283 00
Legal expenses			1,387 83
Furniture and fixtures			20,233 78
Maps, including corrections			37,983 83

Underwriters' boards and tariff associations	$70,684 68
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses	26,920 51
Inspections and surveys	8,169 85
Repairs and expenses on real estate	30,231 52
Taxes on real estate	24,580 46
State taxes on premiums	142,450 59
Insurance department licenses and fees	32,308 11
Mercantile agencies, $11,161.52; miscellaneous, $1,054.87; subscriptions to papers, $3,174.64; exchange, $11,265.42; bills receivable, past due charged off, $12,131.09; investment expenses: legal expenses, $270; rent of safe deposit boxes, $260.08; transfer taxes and notary fees, $437.55	39,755 17
Interest and dividends to stockholders (amount declared during the year)	1,000.000 00
Scrip or certificates of profits redeemed in cash	93 00
Interest paid to scripholders	4 50
Agents' balances charged off	507 59
Loss on sale or maturity of ledger assets	129.251 00
Decrease in book value of ledger assets	147,750 00
Total disbursements	$8.257.844 97
Balance	$25,503,123 44

LEDGER ASSETS.

Book value of real estate	$1,200,000 00
Mortgage loans on real estate	2,700 00
Book value of bonds and stocks	18.182.165 00
Cash in office	2,002 20
Deposits in trust companies and banks not on interest	415 26
Deposits in trust companies and banks on interest	4,902,989 32
Agents' balances, representing business written subsequent to October 1st, last	1,004.810 93
Agents' balances, representing business written prior to October 1st, last	2,999 03
Bills receivable taken for fire risks	205,041 70
Total ledger assets	$25.503.123 44

Non-Ledger Assets.

Interest due and accrued on bonds	$52.695 41	
Interest due and accrued on other assets	121.193 71	
Total		173.889 12
Gross assets		$25,677.012 56

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$2.999 03	
Bills receivable, past due, taken for marine, inland and fire risks	97,434 40	
Total		100.433 43
Total admitted assets		$25.576.579 13

LIABILITIES.

Losses in process of adjustment, or in suspense	$466.560 54	
Losses resisted	39,775 00	
Total claims for losses	$506,335 54	
Deduct reinsurance	45,394 46	
Net amount of unpaid losses		$460.941 08

Unearned premiums at 50 per cent on fire risks running one year or less	$2,114,371 94	
Unearned premiums pro rata on fire risks running more than one year	6,397,826 57	
Unearned premiums at 50 per cent on inland navigation risks	10,586 90	
Total unearned premiums as computed above		$8,522,785 41
Principal unpaid on scrip or certificates of profits authorized or ordered to be redeemed		26,700 00
Interest due or accrued, remaining unpaid on scrip		6,063 90
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		22,500 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		141,500 00
Commissions, brokerage and other charges due or to become due to agents and brokers		77,466 94
Reinsurance premiums		43,050 85
All other liabilities: The First Bulgarian Insurance Company reserve, $25,379.62; interest due or accrued on First Bulgarian Insurance Company reserve, $359.20; reserve for contingencies, $250,000.00		275,738 82
Total liabilities, except capital stock		$9,576,747 00
Cash capital	$2,000,000 00	
Surplus over all liabilities	13,999,832 13	
Surplus to policyholders		15,999,832 13
Total		$25,576,579 13
Special reserve fund held under New York insurance law		$600,000 00

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$1,511,120,574	$15,964,506 26
Written during the year	953,300,087	9,808,271 05
Totals	$2,464,420,661	$25,772,777 31
Expired and terminated	786,051,387	8,320,605 27
In force at end of the year	$1,678,369,274	$17,452,172 04
Deduct amount reinsured	107,720,205	1,206,159 11
Net amount in force	$1,570,649,069	$16,246,012 93

	Marine and inland risks.	Premiums.
Written during the year	$1,485,607	$43,187 03
Totals	$1,485,607	$43,187 03
Expired and terminated	218,750	6,984 90
In force at end of the year	$1,266,857	$36,202 13
Deduct amount reinsured	519,052	15,028 33
Net amount in force	$747,805	$21,173 80

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$392,294,054	$4,228,743 88
More than one and not more than three years to run	762,055,665	6,986,293 69
More than three years to run	416,299,350	5,030,975 36
Net amount in force December 31, 1911	$1,570,649,069	$16,246,012 93

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$425,000 00
Losses incurred during the year: Fire, $3,759,014.91; marine and inland, $1,974.39	3,760,989 30

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.	Marine and inland.
Gross risks written	$33,761,977 00	$100,750 00
Less	5,903,793 00	30,667 00
Net risks written	27,858,184 00	70,083 00
Gross premiums received	472,315 06	2,779 60
Less	77,836 08	660 95
Net premiums received	394,478 98	2,118 65
Net losses paid	131,600 06	----------
Net losses incurred	123,557 67	----------

DETROIT FIRE AND MARINE INSURANCE COMPANY.

Detroit, Mich.

(Incorporated February 1, 1866. Commenced business in California 1911.)

WM. H. BUTLER, President. A. H. McDONELL, Secretary.

Agent for service in California: A. W. THORNTON, San Francisco.

CAPITAL.

Capital stock paid in cash	$500,000 00	
Amount of ledger assets December 31st of previous year		$2,070,941 22

INCOME.

	Fire.	Marine and inland.	
Gross premiums	$807,194 79	$21,292 45	
Deduct gross amount paid for reinsurance, fire, $107,394.87; marine and inland, $5,933.85; return premiums, fire, $110,937.26; marine and inland, $270.02	218,332 13	6,203 87	
Total premiums (other than perpetuals)	$588,862 66	$15,088 58	$603,951 24
Interest on mortgage loans		38,741 94	
Interest on collateral loans		1,335 90	
Interest on bonds and dividends on stocks		44,389 41	
Interest from other sources		10,743 98	
Rents, including company's occupancy of its own buildings		867 50	
Total interest and rents			96,078 73
From other sources, final dividend from Traders' Insurance Company			360 24
Agents' balances previously charged off			25 00
Profit on sale or maturity of ledger assets			528 38
Increase in book value of ledger assets			50 00
Total income			$700,993 59
Total			$2,771,934 81

DISBURSEMENTS.

	Fire.	Marine and inland.	
Gross amount paid for losses	$384,699 43	$18,055 96	
Deduct amount received for salvage, fire, $2,155.32; marine and inland, $1,955.96; reinsurance, fire, $63,115.28; marine and inland, $3,333.50; discount, fire, $606.43	65,877 03	5,289 46	
Net amount paid for losses	$318,822 40	$12,766 50	$331,588 90

Expenses of adjustment, settlement of losses	$5,080 19
Commissions or brokerage	130,254 48
Salaries and expenses of special and general agents	17,899 96
Salaries, fees and other charges of officers, directors, trustees, agents and employees	44,532 77
Rents, including company's occupancy of its own buildings	4,939 32
Advertising, printing and stationery	7,178 71
Postage, telegrams, telephone and express	5,252 27
Legal expenses	900 00
Furniture and fixtures	227 41
Maps, including corrections	2,204 10
Underwriters' boards and tariff associations	6,785 72
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses	6,189 62
Inspections and surveys	514 16
Repairs and expenses on real estate	201 29
Taxes on real estate	188 55
State taxes on premiums	7,380 89
Insurance department licenses and fees	3,582 87
All other licenses, fees and taxes	7,323 65
Other disbursements	2,049 34
Interest and dividends to stockholders	72,500 00
Agents' balances charged off	9 40
Loss on sale or maturity of ledger assets	120 00
Decrease in book value of ledger assets	1,448 78
Total disbursements	$658,352 38
Balance	$2,113,582 43

LEDGER ASSETS.

Book value of real estate	$174,783 51
Mortgage loans on real estate	707,433 85
Loans secured by pledge of bonds, stocks or other collaterals	20,000 00
Book value of bonds and stocks	1,021,249 47
Cash in office	1,810 99
Deposits in trust companies and banks on interest	96,143 03
Agents' balances, representing business written subsequent to October 1st, last	90,525 18
Agents' balances, representing business written prior to October 1st, last	1,441 68
Reinsurance due from other companies on losses paid	194 72
Total ledger assets	$2,113,582 43

Non-Ledger Assets.

Interest due and accrued on mortgages	$8,684 49	
Interest due and accrued on bonds	15,615 81	
Interest due and accrued on collateral loans	596 67	
Interest due and accrued on other assets (land contracts)	1,021 65	
Total		25,918 62
Market value of bonds and stocks over book value		759 34
Gross assets		$2,140,260 39

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	1,441 68
Total admitted assets	$2,138,818 71

LIABILITIES.

Losses adjusted and unpaid, due and not due	$3,806 79	
Losses in process of adjustment, or in suspense	53,490 16	
Losses resisted	8,199 00	
Total claims for losses	$65,495 95	
Deduct reinsurance	4,085 50	
Net amount of unpaid losses		$61,410 45
Unearned premiums at 50 per cent on fire risks running one year or less	$187,777 03	
Unearned premiums pro rata on fire risks running more than one year	333,971 75	
Total unearned premiums as computed above		$521,148 78
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		7,500 00
Commissions, brokerage and other charges due to agents and brokers		249 20
Total liabilities, except capital stock		$590,908 43
Cash capital	$500,000 00	
Surplus over all liabilities	1,047,910 28	
Surplus to policyholders		1,547,910 28
Total		$2,138,818 71

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$96,459,060	$1,066,004 44
Written during the year	69,966,289	807,194 79
Excess of original premiums over amount received for reinsurance		657 51
Totals	$166,425,349	$1,873,856 74
Expired and terminated	62,350,409	732,413 23
In force at end of the year	$104,074,940	$1,141,443 51
Deduct amount reinsured	10,216,269	126,348 39
Net amount in force	$93,858,671	$1,015,095 12

	Marine and inland risks.	Gross premiums thereon.
In force December 31, 1910	$80,000	$2,700 00
Written during the year	4,331,576	21,292 45
Totals	$4,411,576	$23,992 45
Expired and terminated	4,331,576	21,637 95
In force at end of the year	$80,000	$2,354 50

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$30,366,876	$375,554 05
More than one and not more than three years to run	48,338,176	456,884 15
More than three years to run	15,053,619	182,656 92
Net amount in force December 31, 1911	$93,858,671	$1,015,095 12

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$50,000 00
Losses incurred during the year: Fire, $312,455.33; marine and inland, $7,542.23	319,997 56
Amount loaned to officers and directors	26,000 00
Amount loaned to stockholders not officers	19,000 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$630,879 00
Less	261,911 00
Net risks written	368,968 00
Gross premiums received	10,737 59
Less	4,357 97
Net premiums received	6,379 62

DIXIE FIRE INSURANCE COMPANY.

Greensboro, N. C.

(Incorporated March 14, 1906. Commenced business in California July 6, 1908.]

H. R. Bush, President. F. M. Garner, Secretary.

Agent for service in California: James F. Cobb, San Francisco.

CAPITAL.

Capital stock paid in cash	$500,000 00	
Amount of ledger assets December 31st of previous year		$1,321,834 61

INCOME.

	Fire.	
Gross premiums	$995,037 99	
Deduct gross amount paid for reinsurance, fire, $232,433.27; return premiums, fire, $229,980.30	462,413 57	
Total premiums (other than perpetuals)		$532,624 42
Interest on mortgage loans	$19,175 56	
Interest on collateral loans	3,502 19	
Interest on bonds and dividends on stocks	22,168 91	
Interest from other sources	2,146 40	
Rents, including company's occupancy of its own buildings	9,603 15	
Total interest and rents		56,596 21
Agents' balances previously charged off		10 00
Profit on sale or maturity of ledger assets		9,101 00
Total income		$598,331 63
Total		$1,920,166 24

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$540,679 28	
Deduct amount received for salvage, fire, $3,186.03; reinsurance, fire, $57,753.84	60,939 87	
Net amount paid for losses		$479,739 41
Expenses of adjustment, settlement of losses		11,098 52
Commissions or brokerage		117,060 15
Salaries and expenses of special and general agents		21,941 57
Salaries, fees and other charges of officers, directors, trustees, agents and employees		35,294 51
Rents, including company's occupancy of its own buildings		1,500 00
Advertising, printing and stationery		7,653 76
Postage, telegrams, telephone and express		4,858 12
Legal expenses		5,183 31
Furniture and fixtures		796 30
Maps, including corrections		1,332 66

Underwriters' boards and tariff associations	$9,605 74
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses	6,204 50
Inspections and surveys	874 00
Repairs and expenses on real estate	5,070 19
Taxes on real estate	1,105 00
State taxes on premiums	9,093 79
Insurance department licenses and fees	5,728 35
All other licenses, fees and taxes	14,163 70
Other disbursements: Office expenses, $193.11; traveling expenses, $1,670.98; auditing, $1,441.76; bonding account treasurer of company, $339.06; Delta Yazoo levee tax, $150	3,794 91
Agents' balances charged off	3,901 96
Total disbursements	$746,000 45
Balance	$1,174,165 79

LEDGER ASSETS.

Book value of real estate	$100,000 00
Mortgage loans on real estate	325,327 48
Loans secured by pledge of bonds, stocks or other collaterals	47,100 00
Book value of bonds and stocks	484,591 84
Cash in office	447 93
Deposits in trust companies and banks not on interest	2,026 21
Deposits in trust companies and banks on interest	68,545 89
Agents' balances, representing business written subsequent to October 1st, last	116,401 26
Agents' balances, representing business written prior to October 1st, last	26,166 05
Western Sprinkler Risk Association	500 00
Reinsurance recoverable on paid losses	3,059 13
Total ledger assets	$1,174,165 79

Non-Ledger Assets.

Interest due and accrued on mortgages	$5,728 16	
Interest due and accrued on bonds	7,257 07	
Interest due and accrued on collateral loans	610 88	
Rents due and accrued on company's property	1,402 75	
Total		14,998 86
Other non-ledger assets: Furniture, fixtures and maps, $12,000.00; supplies, printed matter and stationery, $1,500.00		13,500 00
Gross assets		$1,202,664 65

Deduct Assets Not Admitted.

Supplies, printed matter and stationery	$1,500 00	
Furniture, fixtures and safes	12,000 00	
Agents' balances, representing business written prior to October 1st, last	26,166 05	
Book value of ledger assets over market value	10,896 84	
Total		50,562 89
Total admitted assets		$1,152,101 76

LIABILITIES.

Losses adjusted and unpaid, due and not due	$11,695 82	
Losses in process of adjustment, or in suspense	39,138 00	
Losses resisted	4,440 00	
Total claims for losses	$55,273 82	
Deduct reinsurance	7,724 89	
Net amount of unpaid losses		$47,548 93

Unearned premiums at 50 per cent on fire risks running one year or less	$178,248 43	
Unearned premiums pro rata on fire risks running more than one year	200,916 23	
Total unearned premiums as computed above		$379,164 66
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		10,000 00
Total liabilities, except capital stock		$436,713 59
Cash capital	$500,000 00	
Surplus over all liabilities	215,388 17	
Surplus to policyholders		715,388 17
Total		$1,152,101 76

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$74,229,090	$1,080,811 52
Written during the year	68,037,706	995,037 99
Totals	$142,266,796	$2,075,849 51
Expired and terminated	65,058,906	973,299 58
In force at end of the year	$77,207,890	$1,102,549 93
Deduct amount reinsured	29,338,558	353,191 75
Net amount in force	$47,869,332	$749,358 18

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$24,058,951	$356,496 85
More than one and not more than three years to run	20,686,318	335,888 48
More than three years to run	3,124,063	56,972 85
Net amount in force December 31, 1911	47,869,332	749,358 18

MISCELLANEOUS.

Losses incurred during the year: Fire	$454,249 30
Amount loaned to officers and directors	2,500 00
Amount loaned to stockholders not officers	45,614 25

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$5,024,939 00
Less	1,887,409 00
Net risks written	3,137,530 00
Gross premiums received	99,082 53
Less	35,028 86
Net premiums received	64,053 67
Net losses paid	30,619 82
Net losses incurred	28,330 42

DUBUQUE FIRE AND MARINE INSURANCE COMPANY.

Dubuque, Iowa.

(Incorporated July 18, 1883. Commenced business in California February, 1907.)

JOHN ELLWANGER, President. N. J. SCHIMP, Secretary.

Agent for service in California: CLARENCE DE VEUVE, San Francisco.

CAPITAL.

Capital stock paid in cash	$200,000 00	
Amount of ledger assets December 31st of previous year		$1,262,106 52

INCOME.

	Fire.	
Gross premiums	$930,609 34	
Deduct gross amount paid for reinsurance, fire, $72,975.16; return premiums, fire, $143,380.19	216,355 35	
Total premiums (other than perpetuals)		$714,253 99
Interest on mortgage loans	$52,291 98	
Interest on collateral loans	453 00	
Interest on bonds and dividends on stocks	15,036 10	
Interest from other sources	2,588 89	
Rents, including company's occupancy of its own buildings	220 00	
Total interest and rents		70,589 97
Profit on sale or maturity of ledger assets		1,568 75
Total income		$786,412 71
Total		$2,048,519 23

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$421,384 46	
Deduct amount received for salvage, fire, $1,878.38; reinsurance, fire, $52,260.96; discount, fire, $873.41	55,012 75	
Net amount paid for losses		$366,371 71
Expenses of adjustment, settlement of losses		9,797 56
Commission or brokerage		193,892 55
Salaries and expenses of special and general agents		32,530 81
Salaries, fees and other charges of officers, directors, trustees, agents and employees		25,764 80
Rents, including company's occupancy of its own buildings		2,215 00
Advertising, printing and stationery		4,945 13
Postage, telegrams, telephone and express		6,927 63
Legal expenses		55 42
Maps, including corrections		1,698 61
Underwriters' boards and tariff associations		773 91
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		7,860 80
Inspections and surveys		3,275 24
Taxes on real estate		30 55
State taxes on premiums		12,683 89
Insurance department licenses and fees		4,761 81
All other licenses, fees and taxes		2,426 73
Office expense and supplies		2,641 40
Interest and dividends to stockholders		40,000 00
Total disbursements		$718.653 55
Balance		$1,329,865 68

LEDGER ASSETS.

Book value of real estate	$2,900 00
Mortgage loans on real estate	859,883 00
Loans secured by pledge of bonds, stocks or other collaterals	9,900 00
Book value of bonds and stocks	274,543 75
Cash in office	1.820 86
Deposits in trust companies and banks not on interest	4.048 64
Deposits in trust companies and banks on interest	69,807 58
Agents' balances, representing business written subsequent to October 1st, last	101,626 05
Agents' balances, representing business written prior to October 1st, last	5,335 80
Total ledger assets	$1,329.865 68

Non-Ledger Assets.

Interest due and accrued on mortgages	$14,569 78	
Interest due and accrued on bonds	3,388 25	
Interest due and accrued on collateral loans	781 85	
Rents due and accrued on company's property	20 00	
Total		$18,759 88
Market value of bonds and stocks over book value		14,606 25
Other non-ledger assets: deposit in bank, commission of local agency		5,572 29
Gross assets		$1,368,804 10

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	5,335 80
Total admitted assets	$1,363,468 30

LIABILITIES.

Losses in process of adjustment, or in suspense	$34,821 26	
Deduct reinsurance	6,388 20	
Net amount of unpaid losses		$28,433 06
Unearned premiums at 50 per cent on fire risks running one year or less	$164,472 87	
Unearned premiums pro rata on fire risks running more than one year	596,255 43	
Total unearned premiums as computed above		760,728 30
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		20,000 00
Total liabilities, except capital stock		$809,161 36
Cash capital	$200,000 00	
Surplus over all liabilities	354,306 94	
Surplus to policyholders		554,306 94
Total		$1,363,468 30

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$112,748,546	$1,386,399 24
Written during the year	76,240,921	930,609 34
Totals	$188,989,467	$2,317,008 58
Expired and terminated	62,570,265	790,992 88
In force at end of the year	$126,419,202	$1,526,015 70
Deduct amount reinsured	6,607,961	102,858 32
Net amount in force December 31, 1911	$119,811,241	$1,423,157 38

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$25,888,765	$328,945 73
More than one and not more than three years to run	59,862,443	629,493 59
More than three years to run	34,060,033	464,718 06
Net amount in force December 31, 1911	$119,811,241	$1,423,157 38

MISCELLANEOUS.

Largest amount written on any one risk, not deducting reinsurance	$25,000 00
Losses incurred during the year: Fire	353,738 65
Amount loaned to stockholders not officers	7,900 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$5,280,306 00
Less	1,939,669 00
Net risks written	3,340,637 00
Gross premiums received	92,242 20
Less	32,475 13
Net premiums received	59,767 07
Net losses paid	19,294 38
Net losses incurred	22,838 92

EMPIRE CITY FIRE INSURANCE COMPANY.

New York, N. Y.

(Incorporated 1850. Commenced business in California November 6, 1908.)

Chas. A. Hull, President. D. J. Burtis, Vice-President and Secretary.

Agent for service in California: Associated Underwriters, Inc., San Francisco.

CAPITAL.

Capital stock paid in cash	$400,000 00	
Amount of ledger assets December 31st of previous year		$1,138,366 70

INCOME.

	Fire.	
Gross premiums	$1,147,250 07	
Deduct gross amount paid for reinsurance, fire, $196,014.14; return premiums, fire, $241,278.53	437,292 67	
Total premiums (other than perpetuals)		$709,957 40
Interest on mortgage loans	$12,514 67	
Interest on collateral loans	250 00	
Interest on bonds and dividends on stocks	28,111 11	
Interest from other sources	2,221 16	
Total interest and rents		43,096 94
From other sources: Lackawanna Railroad Company of New Jersey, stock dividend from the D. L. & W. Railroad Company		1,995 00
Profit on sale or maturity of ledger assets		1,630 90
Total income		$756,680 24
Total		$1,895,046 94

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$507,589 40	
Deduct amount received for salvage, fire, $6,049.96; reinsurance, fire, $94,833.80; discount, fire, $424.33	101,308.09	
Net amount paid for losses		$406,281 31
Expenses of adjustment, settlement of losses		7,667 56
Commissions or brokerage		130,739 13
Salaries, fees and other charges of officers, directors, trustees, agents and employees		16,162 66
Rents, including company's occupancy of its own buildings		3,100 00
Advertising, printing and stationery		4,035 80
Postage, telegrams, telephone and express		2,927 29
Legal expenses		1,081 14
Furniture and fixtures		144 78
Maps, including corrections		10 60
Underwriters' boards and tariff associations		3,035 31

Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		$3,574 89
Inspections and surveys		711 38
State taxes on premiums		8,505 72
Insurance department licenses and fees		2,786 30
All other licenses, fees and taxes		2,502 90
Premiums on surety bonds		311 25
Sundry expenses		263 40
Scrip or certificates of profits redeemed in cash		36,000 00
Loss on sale or maturity of ledger assets		9,522 50
Decrease in book value of ledger assets		1,995 00
Total disbursements		$741,358 92
Balance		$1,153,688 02

LEDGER ASSETS.

Mortgage loans on real estate		$249,500 00
Loans secured by pledge of bonds, stocks or other collaterals		5,000 00
Book value of bonds and stocks		689,451 92
Cash in office		102 19
Deposits in trust companies and banks not on interest		9,354 64
Deposits in trust companies and banks on interest		69,905 60
Agents' balances, representing business written subsequent to October 1st, last		130,373 67
Total ledger assets		$1,153,688 02

Non-Ledger Assets.

Interest due and accrued on mortgages	$1,288 53	
Interest due and accrued on bonds	1,929 17	
Interest due and accrued on collateral loans	125 00	
Total		3,342 70
Gross assets		$1,157,030 72

Deduct Assets Not Admitted.

Book value of ledger assets over market value		7,561 92
Total admitted assets		$1,149,468 80

LIABILITIES.

Losses adjusted and unpaid, due and not due	$9,155 18	
Losses in process of adjustment, or in suspense	47,277 83	
Losses resisted	8,623 11	
Total claims for losses	$65,056 12	
Deduct reinsurance	6,561 17	
Net amount of unpaid losses		$58,494 95
Unearned premiums at 50 per cent on fire risks running one year or less	$264,407 50	
Unearned premiums pro rata on fire risks running more than one year	176,072 63	
Total unearned premiums as computed above		440,480 13
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		9,500 00
Estimated unpaid bills		500 00
Total liabilities, except capital		$508,975 08
Cash capital	$400,000 00	
Surplus over all liabilities	240,493 72	
Surplus to policyholders		640,493 72
Total		$1,149,468 80

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$74,572,129	$873,622 04
Written during the year	99,984,508	1,147,250 07
Excess of original premiums over amount received for reinsurance	----------	3,752 07
Totals	$174,556,637	$2,024,624 18
Expired and terminated	88,805,021	1,003,879 43
In force at end of the year	$85,751,616	$1,020,744 75
Deduct amount reinsured	16,707,410	204,164 28
Net amount in force	$69,044,206	$816,580 47

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$528,814 99	$264,407 50
More than one and not more than three years to run	241,869 44	142,620 86
More than three years to run	45,896 04	33,451 77
Net amount in force December 31, 1911	$816,580 47	$440,480 13

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$50,000 00
Losses incurred during the year: Fire	394,767 26

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Net risks written	$1,895,669 00
Net premiums received	35,811 56
Net losses paid	1,229 71
Net losses incurred	2,679 72

EQUITABLE FIRE AND MARINE INSURANCE COMPANY.

Providence, R. I.

(Incorporated May, 1859. Commenced business in California 1876.)

Fred W. Arnold, President. Samuel G. Howe, Secretary.

Agent for service in California: Geo. H. Tyson, San Francisco.

CAPITAL.

Capital stock paid in cash	$400,000 00	
Amount of ledger assets, December 31st of previous year		$1,287,847 67

INCOME.

	Fire.	Marine and inland.	
Gross premiums	$1,004,194 55	$31,578 96	
Deduct gross amount paid for reinsurance, fire, $481,167.88; marine and inland, $386.75; return premiums, fire, $182,875.05; marine and inland, $2,233.54	664,042 93	2,620 29	
Total premiums (other than perpetuals)	$340,151 62	$28,958 67	$369,110 29
Interest on mortgage loans		6,490 22	
Interest on collateral loans		229 08	
Interest on bonds and dividends on stocks		37,039 25	
Interest from other sources		313 36	
Rents, including company's occupancy of its own buildings		9,724 41	
Total interest and rents			53,796 32

Borrowed money	$30,000 00
Increase in liabilities during the year on account of reinsurance treaties	232,516 96
Agents' balances previously charged off	8 20
Profit on sale or maturity of ledger assets	2,762 50
Total income	$688,194 27
Total	$1,976,041 94

DISBURSEMENTS.

	Fire.	Marine and inland.	
Gross amount paid for losses	$617,193 56	$13,158 77	
Deduct amount received for: Salvage, fire, $2,941.56; marine and inland, $567.17; reinsurance, fire, $61,168.84; marine and inland, $868.72; discount, fire, $524.67; marine and inland, $39.25	64,635 07	1,475 14	
Net amount paid for losses	$552,558 49	$11,683 63	$564,242 12
Expenses of adjustment, settlement of losses			10,695 73
Commissions or brokerage			21,350 12
Salaries and expenses of special and general agents			39,892 29
Salaries, fees and other charges of officers, directors, trustees, agents and employees			51,174 93
Rents, including company's occupancy of its own buildings			8,615 60
Advertising, printing and stationery			14,342 42
Postage, telegrams, telephone and express			7,828 72
Legal expenses			70 00
Furniture and fixtures			40 24
Maps, including corrections			2,379 41
Underwriters' boards and tariff associations			7,883 35
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses			7,877 77
Inspections and surveys			3,109 40
Repairs and expenses on real estate			3,281 74
Taxes on real estate			1,967 13
State taxes on premiums			15,146 24
Insurance department licenses and fees			5,816 51
Municipal and county fees and taxes			1,609 75
Other disbursements			2,815 97
Interest and dividends to stockholders			12,000 00
Agents' balances charged off			510 28
Loss on sale or maturity of ledger assets			212 00
Decrease in book value of ledger assets			16,347 80
Total disbursements			$799,209 52
Balance			$1,176,832 42

LEDGER ASSETS.

Book value of real estate	$101,180 00
Mortgage loans on real estate	124,750 00
Book value of bonds and stocks	800,300 00
Cash in office	754 35
Deposits in trust companies and banks on interest	19,041 56
Agents' balances, representing business written subsequent to October 1st, last	126,324 02
Agents' balances, representing business written prior to October 1st, last	2,496 24
Bills receivable, taken for marine and inland risks	1,886 25
Philadelphia Underwriters' Association deposit	100 00
Total ledger assets	$1,176,832 42

Total ledger assets		$1,176,832 42

Non-Ledger Assets.

Interest due and accrued on mortgages	$224 32	
Interest due and accrued on bonds	8,142 37	
Rents due and accrued on company's property	487 50	
Total		8,854 19
Market value of bonds and stocks over book value		91,285 00
Gross assets		$1,276,971 61

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$2,496 24	
Philadelphia Underwriters' Association deposit	100 00	
Total		2,596 24
Total admitted assets		$1,274,375 37

LIABILITIES.

Losses adjusted and unpaid, due and not due	$5,862 17	
Losses in process of adjustment, or in suspense	61,190 07	
Losses resisted	11,467 13	
Total claims for losses	$78,519 37	
Deduct reinsurance	25,841 16	
Net amount of unpaid losses		$52,678 21
Unearned premiums at 50 per cent on fire risks running one year or less	$131,146 73	
Unearned premiums pro rata on fire risks running more than one year	156,039 80	
Unearned premiums, hulls, $24,873.14 at 50 per cent, $12,436.57; voyage, $929.25, at 100 per cent, $929.25	13,365 82	
Total unearned premiums as computed above		300,552 35
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		1,000 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		10,000 00
Commissions, brokerage and other charges due or to become due to agents and brokers		8,000 00
Reinsurance premiums		232,516 96
Due and to become due for borrowed money		30,000 00
Interest on mortgages collected in advance		444 02
Total liabilities, except capital stock		$635,191 54
Cash capital	$400,000 00	
Surplus over all liabilities	239,183 83	
Surplus to policyholders		639,183 83
Total		$1,274,375 37
Special reserve fund held under Rhode Island law, chapter 1438		$70,000 00

RECAPITULATION OF FIRE RISKS AND PREMIUMS.

	Fire risks.	Gross premiums thereon.
In force December 31, 1910, as per line No. 5 under this heading in last year's statement	$141,652,271	$1,618,945 45
Written or renewed during the year, per Income No. 5	85,038,020	1,004,194 55
Excess of original premiums over amount received for reinsurance		969 12
Total	$226,690,291	$2,624,109 12
Deduct those expired and marked off as terminated	92,423,996	1,137,895 89
In force at the end of year, 1911	$134,266,295	$1,486,213 23
Deduct amount reinsured	85,412,352	909,475 81

	Marine and inland risks.	Gross premiums thereon.
In force December 31, 1910, as per line 5 under this heading in last year's statement	$368,215	$21,183 66
Written or renewed during the year, per Income No. 5	947,437	31,578 96
Excess of original premiums over amount received for reinsurance	----------	53 11
Total	$1,315,652	$52,815 73
Deduct those expired and marked off as terminated	849,441	26,656 59
In force at the end of year, 1911	$466,211	$26,159 14
Deduct amount reinsured	5,250	356 75
Net amount in force December 31, 1911	$460,951	$25,802 39

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$40,000 00
Losses incurred during the year: Fire, $506,812.58; marine and inland, $17,573.63; tornado, $3,322.61	527,708 82

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$3,281,089 00
Less	856,482 00
Net risks written	2,424,607 00
Gross premiums received	58,601 15
Less	14,831 82
Net premiums received	43,769 33
Net losses paid	11,597 05
Net losses incurred	9,766 56

FIDELITY-PHENIX FIRE INSURANCE COMPANY OF NEW YORK.

New York, N. Y.

(Incorporated March 1, 1910. Commenced business in California March 1, 1910.)

Henry Evans, President. Charles R. Street, Secretary.

Agent for service in California: Arthur G. Nason, San Francisco.

CAPITAL.

Capital stock paid in cash	$2,500,000 00	
Amount of ledger assets December 31st of previous year		$13,644,742 22

INCOME.

	Fire.	Marine and inland.	
Gross premiums	$8,337,142 65	$31,816 67	
Deduct gross amount paid for reinsurance, fire, $1,226,699.90; marine and inland, $8,342.87; return premiums, fire, $1,109,305.12; marine and inland, $3,428.20	2,336,005 02	11,771 07	
Total premiums (other than perpetuals)	$6,001,137 63	$20,045 60	$6,021,183 23
Interest on mortgage loans		5,138 88	
Interest on bonds and dividends on stocks		489,954 12	
Interest from other sources		31,507 52	
Rents, including company's occupancy of its own buildings		7,500 34	
Total interest and rents			534,100 86

Recovery from brokers' account of Sheldon transactions	$52,500 00
Increase in liabilities during the year on account of reinsurance treaties	32,493 93
Agents' balances previously charged off	656 28
Profit on sale or maturity of ledger assets	269,077 00
Increase in book value of ledger assets	423,897 00
Total income	$7,333,908 30
Total	$20,978,650 52

DISBURSEMENTS.

	Fire.	Marine and inland.	
Gross amount paid for losses	$4,059,004 53	$2,365 40	
Deduct amount received for salvage, fire, $22,598.31; reinsurance, fire, $524,267.79; discount, fire, $5.59	546,871 69		
Net amount paid for losses	$3,512,132 84	$2,365 40	$3,514,498 24
Expenses of adjustment, settlement of losses			94,608 86
Commissions or brokerage			1,217,344 84
Allowances to local agencies for miscellaneous agency expenses			547 64
Salaries and expenses of special and general agents			299,210 12
Salaries, fees and other charges of officers, directors, trustees, agents and employees			427,950 16
Rents, including company's occupancy of its own buildings			64,474 33
Advertising, printing and stationery			73,884 31
Postage, telegrams, telephone and express			51,180 83
Legal expenses			3,730 66
Furniture and fixtures			8,194 07
Maps, including corrections			10,372 52
Underwriters' boards and tariff associations			69,639 62
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses			31,822 99
Inspections and surveys			11,355 16
Repairs and expenses on real estate			2,196 17
Taxes on real estate			1,250 73
State taxes on premiums			92,211 90
Insurance department licenses and fees			40,900 46
Other disbursements: Municipal taxes, $18,206.43; miscellaneous, $666.57; mercantile agencies, $5,567.12; exchange, $10,506.58; subscriptions to papers, $2,221.98; premiums on insurance of life of H. C. Stockdell, $1,095.85; investment expenses, $4,971.60			43,236 13
Release Carnegie Trust Company deposit in part settlement of claim			254,186 32
Interest and dividends to stockholders			250,000 00
Agents' balances charged off			11,197 55
Loss on sale or maturity of ledger assets			7,537 00
Decrease in book value of ledger assets			63,810 00
Total disbursements			$6,645,340 61
Balance			$14,333,309 91

LEDGER ASSETS.

Book value of real estate	$67,500 00
Mortgage loans on real estate	539,500 00
Book value of bonds and stocks	10,114,416 00
Deposits in trust companies and banks on interest	2,456,697 45
Agents' balances, representing business written subsequent to October 1st, last	811,934 42
Agents' balances, representing business written prior to October 1st, last	30,736 50
Bills receivable taken for fire risks	285,628 66
Citizens' Insurance Company of New York	11,896 88
Bills receivable taken for real estate sold	15,000 00
Total ledger assets	$14,333,309 91

Non-Ledger Assets.

Interest due and accrued on mortgages	$26,750 01	
Interest due and accrued on bonds	25,368 77	
Interest due and accrued on other assets	972 54	
Declared dividends on stocks (transfer books closed)	48,740 25	
Rents due and accrued on company's property	54 62	
Total		$101,886 19
Gross assets		$14.435.196 10

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$30,736 50	
Bills receivable, past due, taken for marine, inland and fire risks	44,139 72	
Citizens' Insurance Company of New York	11,896 88	
Special deposits to secure liabilities in mortgage loan No. 292	15,000 00	
Total		$101.773 10
Total admitted assets		$14.333,423 00

LIABILITIES.

Losses in process of adjustment, or in suspense	$488.934 40	
Losses resisted	66,709 00	
Total claims for losses	$555,643 40	
Deduct reinsurance	69,668 75	
Net amount of unpaid losses		$485.974 65
Unearned premiums at 50 per cent on fire risks running one year or less	$1.731.447 30	
Unearned premiums pro rata on fire risks running more than one year	4.827.658 65	
Unearned premiums at 50 per cent on inland navigation risks	10,586 89	
Total unearned premiums as computed above		6.569.692 84
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		61,212 48
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		131.000 00
Commissions, brokerage and other charges due or to become due to agents and brokers, $25,903.32; return premiums, $366.12; reinsurance premiums, $32,073.25		32,439 37
All other liabilities: The First Bulgarian Insurance Company reserve and interest		49.444 83
Reserve for contested liabilities (not losses)		250,000 00
Total liabilities, except capital stock		$7.605.667 49
Cash capital	$2.500.000 00	
Surplus over all liabilities	4.227.755 51	
Surplus to policyholders		6,727,755 51
Total		$14.333.423 00

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$1.253.332,562	$14.095.024 62
Written during the year	752.081.218	8,337,142 65
Totals	$2.005.413.780	$22.432.167 27
Expired and terminated	726.937.868	8,373,695 75
In force at end of the year	$1.278.475.912	$14.058.471 52
Deduct amount reinsured	109,521.004	1.110.389 20
Net amount in force	$1,168,954,908	$12.948.082 32

	Marine and inland risks.	Gross premiums thereon.
Written during the year	$1,125,120	$31,816 67
Expired and terminated	148,563	4,497 42
In force at end of the year	$976,557	$27,319 25
Deduct amount reinsured	228,752	6,145 46
Net amount in force	$747,805	$21,173 79

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$294,424,232	$3,484,068 40
More than one and not more than three years to run	518,975,566	4,909,837 67
More than three years to run	356,302,915	4,575,350 04
Net amount in force December 31, 1911	$1,169,702,713	$12,969,256 11

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$250,000 00
Losses incurred during the year: Fire, $3,419,726.70; marine and inland, $2,480.40	3,422,207 10

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.	Marine and inland.	Tornado.
Gross risks written	$12,647,724 00	$152,022 00	$2,600 00
Less	2,723,633 00	81,940 00	---------
Net risks written	9,924,091 00	70,082 00	2,600 00
Gross premiums received	177,843 19	4,229 83	6 00
Less	37,181 64	2,111 16	---------
Net premiums received	140,661 55	2,118 67	6 00
Net losses paid	43,539 36	11 00	---------
Net losses incurred	48,337 11	46 00	---------

FIRE ASSOCIATION OF PHILADELPHIA INSURANCE COMPANY,

Philadelphia, Pa.

(Incorporated March 27, 1820. Commenced business in California December 9, 1873.)

E. C. Irvin, President. M. G. Garrigues, Secretary.

Agent for service in California: F. M. Avery, San Francisco.

CAPITAL.

Capital stock paid in cash	$750,000 00	
Amount of ledger assets December 31st of previous year		$8,688,566 08

INCOME.

	Fire.	
Gross premiums	$5,857,872 21	
Deduct gross amount paid for reinsurance, fire, $737,706.38; return premiums, fire, $888,498.83	1,626,205.21	
Total premiums (other than perpetuals)		$4,231,667 00
Deposit premiums on perpetual risks		26,906 34
Interest on mortgage loans	$112,926 82	
Interest on collateral loans	5,459 90	
Interest on bonds and dividends on stocks	233,302 82	
Interest from other sources	5,490 63	
Rents, including company's occupancy of its own buildings	23,435 78	
Total interest and rents		380,615 95

From other sources: Earned deposits on perpetual risks, $5,087.76; profit and loss credits on ground rent, $316.67		$5,404 43
Agents' balances previously charged off		781 79
Profit on sale or maturity of ledger assets		5,016 79
Total income		$4,650,392 30
Total		$13,338,958 38

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$2,815,369 49	
Deduct amount received for salvage, fire, $23,117.28; reinsurance, fire, $411,046.35; discount, fire, $2,288.44	436,452 07	
Net amount paid for losses		$2,378,917 42
Expenses of adjustment, settlement of losses		34,533 50
Commissions or brokerage		859,530 78
Allowances to local agencies for miscellaneous agency expenses		12,317 16
Salaries and expenses of special and general agents		280,141 60
Salaries, fees and other charges of officers, directors, trustees, agents and employees		162,141 57
Rents, including company's occupancy of its own buildings		16,530 17
Advertising, printing and stationery		33,539 33
Postage, telegrams, telephone and express		31,430 04
Legal expenses		3,776 57
Furniture and fixtures		1,826 69
Maps, including corrections		16,236 76
Underwriters' boards and tariff associations		53,659 88
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		12,210 13
Inspections and surveys		17,682 62
Repairs and expenses on real estate		7,989 71
Taxes on real estate		6,704 12
State taxes on premiums		88,641 12
Insurance department licenses and fees		32,477 46
Other disbursements: Federal corporation tax, $3,716.39; tax on capital, $14,672.72; municipal licenses, $4,134.86; commission on purchase and sale of securities, $670.31		23,194 28
Deposit premiums returned		62,426 73
Interest and dividends to stockholders		300,000 00
Agents' balances charged off		7,817 84
Loss on sale or maturity of ledger assets		18,825 44
Total disbursements		$4,462,550 92
Balance		$8,876,407 46

LEDGER ASSETS.

Book value of real estate	$521,522 50
Mortgage loans on real estate	2,151,281 66
Loans secured by pledge of bonds, stocks or other collaterals	99,457 12
Book value of bonds and stocks	4,863,573 54
Cash in office	25,708 39
Deposits in trust companies and banks on interest	630,933 77
Agents' balances, representing business written subsequent to October 1st, last	581,378 37
Agents' balances, representing business written prior to October 1st, last	2,552 11
Total ledger assets	$8,876,407 46

Total ledger assets		$8,876,407 46

Non-Ledger Assets.

Interest due and accrued on mortgages	$42,041 54	
Interest due and accrued on bonds	69,301 23	
Interest due and accrued on collateral loans	740 79	
Rents due and accrued on company's property	2,781 72	
Total		114,865 28
Market value of bonds and stocks over book value		17,723 46
Gross assets		$9,008,996 20

Deduct Assets Not Admitted.

Company's stock owned	$10,478 00	
Agents' balances, representing business written prior to October 1st, last	2,552 11	
Book value of ledger assets over market value, viz: real estate	6,746 46	
Total		19,776 57
Total admitted assets		$8,989,219 63

LIABILITIES.

Losses adjusted and unpaid, and not due	$120,270 79	
Losses in process of adjustment, or in suspense	263,636 32	
Losses resisted	37,041 05	
Total claims for losses	$420,948 16	
Deduct reinsurance	70,018 69	
Net amount of unpaid losses		$350,929 47
Unearned premiums at 50 per cent on fire risks running one year or less	$1,349,724 96	
Unearned premiums pro rata on fire risks running more than one year	2,394,827 99	
Total unearned premiums as computed above		3,744,552 95
Amount reclaimable by the insured on perpetual fire insurance policies		1,604,325 52
Salaries, rents, bills, accounts, fees, etc., due or accrued		30,000 00
Reinsurance premiums		3,553 80
Total liabilities, except capital stock		$5,733,361 74
Cash capital	$750,000 00	
Surplus over all liabilities	2,505,857 89	
Surplus to policyholders		3,255,857 89
Total		$8,989,219 63

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force on the 31st day of December, as per line 5 under this heading in last year's statement	$689,490,536	$7,416,312 87
Written or renewed during the year, per Income No. 5	525,067,537	5,857,872 21
Excess of original premiums over amount received for reinsurance		109,961 24
Total	$1,214,558,073	$13,384,146 32
Deduct those expired and marked off as terminated	368,107,541	5,485,922 22
In force at the end of the year	$846,450,532	$7,898,224 10
Deduct amount reinsured (schedule required)	64,598,123	714,670 35
Net amount in force	$781,852,409	$7,183,553 75

Perpetual risks, not included above, $77,420,605.00; deposit premiums on same, $1,755,362.17.

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force having from date of policy not more than one year to run	$320,761,046	$2,699,449 91
More than one and not more than three years to run	292,696,733	2,909,319 64
More than three years to run	168,394,630	1,574,784 23
Net amount in force December 31, 1911	$781,852,409	$7,183,553 75

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$200,000 00
Losses incurred during the year: Fire	2,404,102 43

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$15,121,268 00
Less	4,292,989 00
Net risks written	10,828,279 00
Gross premiums received	245,884 32
Less	56,951 04
Net premiums received	188,933 28
Net losses paid	56,259 12
Net losses incurred	61,911 57

FIREMAN'S FUND INSURANCE COMPANY.

San Francisco, Cal.

(Incorporated May 6, 1863. Commenced business in California June 18, 1863.)

WM. J. DUTTON, President. LOUIS WEINMANN, Secretary.

CAPITAL.

Capital stock paid in cash	$1,500,000 00	
Amount of ledger assets December 31st of previous year		$8,058,357 61

INCOME.

	Fire.	Marine and inland.	
Gross premiums	$5,504,435 05	$3,718,456 12	
Deduct gross amount paid for reinsurance, fire, $805,147.85; marine and inland, $1,594,310.42; return premiums, fire, $887,453.83; marine and inland, $448,305.05	1,692,601 68	2,042,615 65	
Total premiums (other than perpetuals)	$3,811,833 37	$1,675,840 65	$5,487,674 02
Interest on mortgage loans		$36,599 14	
Interest on collateral loans		18,568 89	
Interest on bonds and dividends on stocks		243,681 25	
Interest from other sources		7,844 71	
Rents, including company's occupancy of its own buildings		19,416 00	
Total interest and rents			326,109 99
As per Schedule X			4,320 00
Profit on sale or maturity of ledger assets			1,035 00
Total income			$5,819,139 01
Total			$13,877,496 62

DISBURSEMENTS.

	Fire.	Marine and inland.	
Gross amount paid for losses	$2,417,146 62	$2,321,318 10	
Deduct amount received for salvage, fire, $21,820.93; marine and inland, $98,720.41; reinsurance, fire, $359,256.54; marine and inland, $1,209,835.66; discount, fire, $1,350.02	382,427 49	1,308,556 07	
Net amount paid for losses	$2,034,719 13	$1,012,762 03	$3,047,481 16
Expenses of adjustment, settlement of losses			54,497 04
Commissions or brokerage			990,869 53
Allowances to local agencies for miscellaneous agency expenses			21,223 96
Salaries and expenses of special and general agents			334,456 44
Salaries, fees and other charges of officers, directors, trustees, agents and employees			210,350 00
Rents, including company's occupancy of its own buildings			31,291 79
Advertising, printing and stationery			85,526 76
Postage, telegrams, telephone and express			38,251 80
Legal expenses			5,595 03
Furniture and fixtures			4,009 21
Maps, including corrections			10,443 17
Underwriters' boards and tariff associations			58,835 98
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses			14,855 91
Inspection and surveys			20,545 63
Repairs and expenses on real estate			935 45
Taxes on real estate			5,834 79
State taxes on premiums			97,749 05
Insurance department licenses and fees			37,979 34
All other licenses, fees and taxes			10,900 06
Other disbursements: charities and donations			1,210 55
Miscellaneous expenses			327 22
Interest and dividends to stockholders			180,000 00
Agents' balances charged off			622 51
Loss on sale or maturity of ledger assets			915 85
Total disbursements			$5,264,708 23
Balance			$8,612,788 39

LEDGER ASSETS.

Book value of real estate	$557,442 39
Mortgage loans on real estate	787,463 62
Loans secured by pledge of bonds, stocks or other collaterals	254,731 52
Book value of bonds and stocks	5,132,158 52
Cash in office	14,590 39
Deposits in trust companies and banks not on interest	67,088 17
Deposits in trust companies and banks on interest	592,416 91
Agents' balances, representing business written subsequent to October 1st, last	1,056,111 26
Agents' balances, representing business written prior to October 1st, last	49,857 52
Bills receivable, taken for marine and inland risks	22,028 35
Due from Washington Fire Insurance Co. on reinsurance contract, February 23, 1912, secured by bonds and mortgages deposited in escrow with the Washington Trust and Savings Bank, Seattle, Wash.	78,899 74
Total ledger assets	$8,612,788 39

Non-Ledger Assets.

Interest due and accrued on mortgages	$8,965 81	
Interest due and accrued on bonds	75,711 18	
Interest due and accrued on collateral loans	435 65	
Total		85,112 64
Market value of bonds and stocks over book value		1,990 63
Gross assets		$8,699,891 66

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$49,857 52	
Book value of real estate over market value	442 39	
Total		$50,299 91
Total admitted assets		$8,649,591 75

LIABILITIES.

Losses adjusted and unpaid, due and not due	$63,344 11	
Losses in process of adjustment, or in suspense	698,783 71	
Losses resisted	60,656 52	
Total claims for losses	$822,784 34	
Deduct reinsurance	305,361 08	
Net amount of unpaid losses		$517,423 26
Unearned premiums at 50 per cent on fire risks running one year or less	$1,146,557 96	
Unearned premiums pro rata on fire risks running more than one year	2,063,293 81	
Unearned premiums at 50 per cent on time and automobile risks	475,372 10	
Unearned premiums at 100 per cent on marine risks	29,484 10	
Total unearned premiums as computed above		3,714,707 97
Salaries, rents, expenses, bills, accounts, fees, etc, due or accrued		5,000 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		104,500 00
Commissions, brokerage and other charges due or to become due to agents and brokers		181,500 00
Earned quarterly dividend to December 31, 1911		45,000 00
Total liabilities, except capital stock		$4,568,131 23
Cash capital	$1,500,000 00	
Surplus over all liabilities	2,581,460 52	
Surplus to policyholders		4,081,460 52
Total		$8,649,591 75

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$524,943,983	$6,360,883 21
Written during the year	483,640,394	5,504,435 05
Excess of original premiums over amount received for reinsurance		292,458 42
Totals	$1,008,584,377	$12,157,776 68
Expired and terminated	412,458,320	5,111,291 43
In force at end of the year	$596,126,057	$7,046,485 25
Deduct amount reinsured	74,902,138	913,309 42
Net amount in force December 31, 1911	$521,223,919	$6,133,175 83

	Marine and inland risks.	Premiums.
In force December 31, 1910	$79,828,732	$2,066,646 71
Written during the year	653,336,250	3,718,456 12
Totals	$733,164,982	$5,785,102 83
Expired and terminated	655,285,855	3,809,733 52
In force at end of the year	$77,879,127	$1,975,369 31
Deduct amount reinsured	34,344,494	995,141 01
Net amount in force December 31, 1911	$43,534,633	$980,228 30

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$183,087,885	$2,293,115 93
More than one and not more than three years to run	245,290,568	2,719,335 72
More than three years to run	92,845,466	1,120,724 18
Net amount in force December 31, 1911	$521,223,919	$6,133,175 83

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$125,000 00
Losses incurred during the year: Fire, $2,136,633.71; ocean marine and inland, $965,653.19	3,102,286 90
Amount loaned to stockholders not officers	39,600 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.	Marine and inland.
Gross risks written	$37,891,456 00	$141,245,529 00
Less	20,288,188 00	58,771,117 00
Net risks written	17,603,268 00	82,474,412 00
Gross premiums received	784,970 47	942,772 37
Less	218,596 87	463,238 34
Net premiums received	566,373 60	479,534 03
Net losses paid	178,679 83	255,283 63
Net losses incurred	169,617 99	241,693 63

FIREMEN'S INSURANCE COMPANY.

Newark, N. J.

(Incorporated December 3, 1855. Commenced business in California, 1907.)

Daniel H. Dunham, President. A. H. Hassinger, Secretary.

Agent for service in California: C. H. Ward, San Francisco.

CAPITAL.

Capital stock paid in cash	$1,000,000 00	
Amount of ledger assets December 31st of previous year		$5,309,525 93

INCOME.

	Fire.	
Gross premiums	$3,314,086 00	
Deduct gross amount paid for reinsurance, fire, $371,666.31; return premiums, fire, $584,245.38	995,910 75	
Total premiums (other than perpetuals)		$2,358,175 25
Interest on mortgage loans	$126,222 80	
Interest on bonds and dividends on stocks	136,888 30	
Interest from other sources	497 66	
Rents, including company's occupancy of its own buildings	92,917 43	
Total interest and rents		356,326 19
Loans		285,000 00
Agents' balances previously charged off		127 29
Profit on sale or maturity of ledger assets		1,063 68
Total income		$3,000,692 41
Total		$8,310,218 34

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$1,359,254 10	
Deduct amount received for salvage, fire, $5,497.13; reinsurance, fire, $110,636.86	$116,133 99	
Net amount paid for losses		$1,243,120 11
Expenses of adjustment, settlement of losses		28,005 75
Commissions or brokerage		594,138 11
Allowances to local agencies for miscellaneous agency expenses		9,818 74
Salaries and expenses of special and general agents		64,884 57
Salaries, fees and other charges of officers, directors, trustees, agents and employees		113,070 91
Rents, including company's occupancy of its own buildings		12,500 00
Advertising, printing and stationery		23,215 19
Postage, telegrams, telephone and express		16,374 86
Legal expenses		1,501 66
Furniture and fixtures		2,687 28
Maps, including corrections		7,786 33
Underwriters' boards and tariff associations		21,583 50
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		12,251 33
Inspections and surveys		3,199 27
Repairs and expenses on real estate		35,501 33
Taxes on real estate		16,889 60
State taxes on premiums		41,557 13
Insurance department licenses and fees		15,113 32
All other licenses, fees and taxes		5,676 57
Other disbursements: Interest on loans, $4,852.35; auditors' fees, $1,630.00; loans repaid, $285,000.00		291,482 35
Interest and dividends to stockholders		200,000 00
Scrip or certificates of profits redeemed in cash		3 00
Interest paid to scripholders		1 08
Agents' balances charged off		24 95
Paid for right to subscribe for 4-5 share American Telephone and Telegraph Co. stock		27 75
Total disbursements		$2,760,414 69
Balance		$5,549,803 65

LEDGER ASSETS.

Book value of real estate		$1,000,000 00
Mortgage loans on real estate		2,493,550 00
Book value of bonds and stocks		1,653,050 00
Cash in office		17,308 09
Deposits in trust companies and banks on interest		26,157 08
Agents' balances, representing business written subsequent to October 1st, last		359,361 34
Agents' balances, representing business written prior to October 1st, last		377 14
Total ledger assets		$5,549,803 65

Non-Ledger Assets.

Interest due and accrued on mortgages	$34,545 25	
Interest due and accrued on bonds	13,166 61	
Interest due and accrued on other assets	6,825 00	
Rents due and accrued on company's property	66 68	
Total		54,603 54
Market value of bonds and stocks over book value		771,593 50
Gross assets		$6,376,000 69

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last		377 14
Total admitted assets		$6,375,623 55

LIABILITIES.

Losses adjusted and unpaid, due and not due	$78,694 73	
Losses in process of adjustment, or in suspense	170,209 80	
Losses resisted	24,212 96	
Total claims for losses	$273,117 49	
Deduct reinsurance	43,202 00	
Net amount of unpaid losses		$229,915 49
Unearned premiums at 50 per cent on fire risks running one year or less	$661,819 69	
Unearned premiums pro rata on fire risks running more than one year	1,644,094 00	
Total unearned premiums as computed above		2,305,913 69
Principal unpaid on scrip or certificates of profits authorized or ordered to be redeemed		2,332 84
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		25,581 83
Commission, brokerage and other charges due or to become due to agents and brokers		3,200 00
Total liabilities, except capital stock		$2,566,943 85
Cash capital	$1,000,000 00	
Surplus over all liabilities	2,808,679 70	
Surplus to policyholders		3,808,679 70
Total		$6,375,623 55

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$407,718,533	$4,194,658 94
Written during the year	230,626,204	3,314,086 00
Totals	$638,344,737	$7,508,744 94
Expired and terminated	174,556,291	2,720,388 60
In force at end of the year	$463,788,446	$4,788,356 34
Deduct amount reinsured	41,867,095	490,718 77
Net amount in force	$421,921,351	$4,297,637 57

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$114,617,134	$1,323,639 39
More than one and not more than three years to run	231,179,725	2,101,527 79
More than three years to run	76,124,492	872,470 39
Net amount in force December 31, 1911	$421,921,351	$4,297,637 57

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$140,000 00
Losses incurred during the year: Fire	1,262,269 14

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$8,904 002 00
Less	2,862,748 00
Net risks written	6,041,254 00
Gross premiums received	162,942 50
Less	42,586 47
Net premiums received	120,356 03
Net losses paid	47,172 18
Net losses incurred	47,151 81

FITCHBURG MUTUAL FIRE INSURANCE COMPANY.

Fitchburg, Mass.

(Incorporated March 23, 1847. Commenced business in California in 1911.)

LINCOLN R. WELCH, President. CHESTER A. CLEGG, Secretary.

Agent for service in California: A. H. ELLIOTT, San Francisco.

CAPITAL.

Amount of ledger assets, December 31st of previous year		$234,032 21

INCOME.

	Fire.	
Gross premiums	$165,375 37	
Deduct gross amount paid for reinsurance, fire, $5,983.39; return premiums, fire, $8,280.89	14,265 28	
Total premiums (other than perpetuals)		$151,111 09
Interest on mortgage loans	$558 27	
Interest on collateral loans	718 61	
Interest on bonds and dividends on stocks	6,208 62	
Interest from other sources	199 85	
Rents, including company's occupancy of its own buildings	5,473 50	
Total interest and rents		$13,158 85
Notes payable		10,000 00
Rebate, Minnesota Thresher Manufacturing Company, assessment		681 00
Profit on sale or maturity of ledger assets		1,936 50
Total income		$176,887 44
Total		$410,919 65

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$68,736 26	
Deduct amount received for salvage, fire, $436.01; reinsurance, fire, $1,202.19	1,638 20	
Net amount paid for losses		$67,098 06
Expenses of adjustment, settlement of losses		1,130 76
Commissions or brokerage		18,153 59
Allowances to local agencies for miscellaneous agency expenses		190 54
Salaries and expenses of special and general agents		1,491 63
Salaries, fees and other charges of officers, directors, trustees, agents and employees		10,146 00
Rents, including company's occupancy of its own buildings		1,200 00
Advertising, printing and stationery		1,721 72
Postage, telegrams, telephone and express		1,157 54
Legal expenses		263 00
Furniture and fixtures		255 77
Maps, including corrections		870 35
Underwriters' boards and tariff associations		600 37
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		97 71
Inspections and surveys		4,557 68
Repairs and expenses on real estate		2,464 58
Taxes on real estate		847 51
State taxes on premiums		2,300 23
Insurance department licenses and fees		939 56
All other licenses, fees and taxes		41 75
Interest on notes payable		261 80
Sundry		604 03
Office		142 46
Notes payable		10,000 00
Interest and dividends to policyholders		39,578 97
Agents' balances charged off		12 61
Balance		$166,128 17

LEDGER ASSETS.

Book value of real estate	$60 000 00
Mortgage loans on real estate	11,830 00
Book value of bonds and stocks	149,092 09
Cash in office	151 05
Deposits in trust companies and banks on interest	11,443 28
Agents' balances, representing business written subsequent to October 1st, last	12,275 06
Total ledger assets	$244,791 48

Non-Ledger Assets.

Interest due and accrued on mortgages	$447 66	
Interest due and accrued on bonds	1,073 42	
Rents due and accrued on company's property	355 50	
Total		1,876 58
Market value of bonds and stocks over book value		7,292 91
Gross assets		$253,960 97

LIABILITIES.

Losses adjusted and unpaid, due and not due	$7 18	
Losses in process of adjustment, or in suspense	46 88	
Losses resisted	1,500 00	
Net amount of unpaid losses		$1,554 06
Unearned premiums at 50 per cent on fire risks running one year or less	$40,445 87	
Unearned premiums pro rata on fire risks running more than one year	124,134 11	
Total unearned premiums as computed above		164,579 98
To policyholders		1,989 30
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		300 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		1,344 27
Due and to become due for borrowed money		5,000 00
Total liabilities except capital		$174,767 61
Surplus over all liabilities		79,193 36
Total		$253,960 97

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$25,256,435	$338,099 05
Written during the year	11,566,330	165,375 37
Totals	$36,822,765	$503,474 42
Expired and terminated	11,603,118	162,837 47
In force at end of the year	$25,219,647	$340,636 95
Deduct amount reinsured	1,022,797	12,256 86
Net amount in force	$24,196,850	$328,380 09

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$5,501,233	$80,891 73
More than one and not more than three years to run	7,817,766	129,876 74
More than three years to run	10,877,851	117,611 62
Net amount in force December 31, 1911	$24,196,850	$328,380 09

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$16,000 00
Losses incurred during the year: Fire	62,427 14

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$79,350 00
Less	7,500 00
Net risks writen	71,850 00
Gross premiums received	1,321 38
Less	131 46
Net premiums received	1,189 92
Net losses paid	293 37
Net losses incurred	293 37

THE FRANKLIN FIRE INSURANCE COMPANY.

Philadelphia, Pa.

(Incorporated April 22, 1829. Commenced business in California, 1885.)

ALFRED E. DUNCAN, President. EDGAR P. LUCE, Secretary.

Agent for service in California: C. C. KINNEY, San Francisco.

CAPITAL.

Capital stock paid in cash	$500,000 00	
Amount of ledger assets December 31st of previous year		$3,319,791 55

INCOME.

	Fire.	
Gross premiums	$1,841,680 24	
Deduct gross amount paid for reinsurance, fire, $141,695.01; return premiums, fire, $263,973.30	405,668 31	
Total premiums (other than perpetuals)		$1,436,011 93
Deposit premiums on perpetual risks		10,384 46
Interest on mortgage loans	$2,386 15	
Interest on bonds and dividends on stocks	122,192 42	
Interest from other sources	1,466 16	
Rents, including company's occupancy of its own buildings	7,769 20	
Total interest and rents		133,813 93
Reinsurance deposit account, $100.00; transfer fees on perpetual policies, $743.00		843 00
Profit on sale or maturity of ledger assets		2,684 40
Total income		$1,583,737 72
Total		$4,903,529 27

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses, $95,135.59	$869,200 84	
Deduct amount received for salvage, fire, $3,975.57; reinsurance, $65,244.05	69,219 62	
Net amount paid for losses		$799,981 22
Expenses of adjustment, settlement of losses		13,417 07
Commissions or brokerage		311,335 88
Allowances to local agencies for miscellaneous agency expenses		3,323 29
Salaries and expenses of special and general agents		83,228 61

Salaries, fees and other charges of officers, directors, trustees, agents and employees	$69,447 01
Rents, including company's occupancy of its own buildings	10,450 02
Advertising, printing and stationery	13,577 71
Postage, telegrams, telephone and express	11,524 55
Legal expenses	771 75
Furniture and fixtures	785 53
Maps, including corrections	8,408 32
Underwriters' boards and tariff associations	15,941 52
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses	3,796 07
Inspections and surveys	5,260 07
Repairs and expenses on real estate	775 63
Taxes on real estate	1,931 24
State taxes on premiums	26,363 63
Insurance department licenses and fees	13,142 19
All other licenses, fees and taxes	5,182 00
Deposit premiums returned	31,576 13
Interest and dividends to stockholders	55,997 00
Agents' balances charged off	79 23
Loss on sale or maturity of ledger assets	4,514 17
Decrease in book value of ledger assets	3,743 75
Total disbursements	$1,504,240 79
Balance	$3,399,288 48

LEDGER ASSETS.

Book value of real estate	$146,444 53
Mortgage loans on real estate	37,685 00
Book value of bonds and stocks	2,775,066 87
Deposits in trust companies and banks on interest	140,666 28
Agents' balances, representing business written subsequent to October 1st, last	292,521 83
Agents' balances, representing business written prior to October 1st, last	6,903 97
Total ledger assets	$3,399,288 48

Non-Ledger Assets.

Interest due and accrued on mortgages	$565 27	
Interest due and accrued on bonds	29,969 06	
Total		30,534 33
Market value of real estate over book value		16,555 47
Other non-ledger assets, reinsurance deposit account		1,532 25
Gross assets		$3,447,910 53

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$6,903 97	
Book value of ledger assets over market value, stocks and bonds	20,766 87	
Total		27,670 84
Total admitted assets		$3,420,239 69

LIABILITIES.

Losses adjusted and unpaid, due and not due	$28,938 40	
Losses in process of adjustment, or in suspense	135,347 85	
Losses resisted	17,139 80	
Total claims for losses	$181,426 05	
Deduct reinsurance	17,876 12	
Net amount of unpaid losses		$163,549 93

Unearned premiums at 50 per cent on fire risks running one year or less	$471,140 93	
Unearned premiums pro rata on fire risks running more than one year	734,012 34	
Total unearned premiums as computed above		$1,205,153 27
Amount reclaimable by the insured on perpetual fire insurance policies		705,621 07
Dividends declared and unpaid, to stockholders		300 00
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		1,233 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		23,022 38
Commissions, brokerage and other charges due or to become due to agents and brokers		27,387 04
Return premiums, $17,758.47; reinsurance premiums, $9,563.56		27,322 03
Total liabilities, except capital stock		$2,153,291 72
Cash capital	$500,000 00	
Surplus over all liabilities	766,947 97	
Surplus to policyholders		1,266,947 97
Total		$3,420,239 69

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$207,734,344	$2,224,877 32
Written during the year	160,608,611	1,841,680 24
Totals	$368,342,955	$4,066,557 56
Expired and terminated	127,769,846	1,618,114 25
n force at end of the year	$240,573,109	$2,448,443 31
Deduct amount reinsured	13,508,426	165,904 72
Net amount in force	$227,064,683	$2,282,538 59

Perpetual risks not included above, $36,376,200.20; premiums on same, $784,023.41.

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$89.837 172	$942,281 88
More than one and not more than three years to run	98,351,691	934,482 21
More than three years to run	38,875,820	405,774 50
Net amount in force December 31, 1911	$227,064,683	$2,282,538 59

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$30,000 00
Losses incurred during the year: Fire, $794,737.82; tornado, $1,899.97	796,637 99

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
ross risks written	$8,774,009 00
ess	3,369,915 00
Net risks written	5,404,094 00
ross premiums received	143,426 80
ess	50,459 70
et premiums received	92,967 10
Net losses paid	43,221 52
Net losses incurred	45,732 74

FRANKLIN INSURANCE COMPANY.

Washington, D. C.

(Incorporated April 9, 1818. Commenced business in California, 1911.)

JOHN A. KELLY, President. WM. P. YOUNG, Secretary.

Agent for service in California: T. A. J. TIEDEMAN, San Francisco.

CAPITAL.

Capital stock paid in cash	$250,000 00	
Amount of ledger assets December 31st of previous year		$663,544 4

INCOME.

	Fire.	
Gross premiums	$892,845 17	
Deduct gross amount paid for reinsurance, fire, $225,631.81; return premiums, fire, $201,723.09	427,354 90	
Total premiums (other than perpetuals)		$465,490 2
Interest on mortgage loans	$20,133 94	
Interest on bonds and dividends on stocks	7,431 30	
Interest from other sources	173 16	
Rents, including company's occupancy of its own buildings	2,660 99	
Total interest and rents		30,399 3
Agents' balances previously charged off		11 0
Profit on sale or maturity of ledger assets		7,753 1
Total income		$503,653 8
Total		$1,167,198 2

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$399,253 26	
Deduct amount received for salvage, fire, $628.88; reinsurance, fire, $150,730.56	151,259 44	
Net amount paid for losses		$247,893 8
Expenses of adjustment, settlement of losses		4,001 9
Commissions or brokerage		169,181 6
Salaries, fees and other charges of officers, directors, trustees, agents and employees		5,485 5
Rents, including company's occupancy of its own buildings		900 0
Advertising, printing and stationery		2,702 6
Postage, telegrams, telephone and express		1,141 9
Underwriters' boards and tariff associations		502 0
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		792 7
Repairs and expenses on real estate		1,204 6
Taxes on real estate		572 0
State taxes on premiums		3,676 4
Insurance department licenses and fees		2,236 9
Premiums on surety bonds	$147 50	
Copies of charters	14 15	
Total		161 6
Interest and dividends to stockholders		17,116 6
Decrease in book value of ledger assets		2,025 0
Total disbursements		$459,595 7
Balance		$707,602 5

LEDGER ASSETS.

Book value of real estate	$35,000 00
Mortgage loans on real estate	372,500 00
Book value of bonds and stocks	169,431 25
Cash in office	365 97
Deposits in trust companies and banks not on interest	16,313 67
Deposits in trust companies and banks on interest	16,147 13
Agents' balances, representing business written subsequent to October 1st, last	376 55
Agents' balances, representing business written prior to October 1st, last	97,467 99
Total ledger assets	$707,602 56

Non-Ledger Assets.

Interest due and accrued on mortgages	$4,083 51	
Interest due and accrued on bonds	884 99	
Total		4,968 50
Gross assets		$712,571 06

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$376 55	
Book value of ledger assets over market value, stocks and bonds	3,021 25	
Total		3,397 80
Total admitted assets		$709,173 26

LIABILITIES.

Losses in process of adjustment, or in suspense	$103,747 00	
Deduct reinsurance	22,431 00	
Net amount of unpaid losses		$81,316 00
Unearned premiums at 50 per cent on fire risks running one year or less	$200,265 47	
Unearned premiums pro rata on fire risks running more than one year	111,163 27	
Total unearned premiums as computed above		311,428 74
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		44 71
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		3,000 00
Total liabilities, except capital stock		$395,789 45
Cash capital	$250,000 00	
Surplus over all liabilities	63,383 81	
Surplus to policyholders		313,383 81
Total		$686,163 26

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$62,355,550	$704,001 27
Written during the year	81,171,655	892,845 17
Excess of original premiums over amount received for reinsurance	----------	34,010 14
Totals	$143,527,205	$1,630,856 58
Expired and terminated	65,780,351	827,247 06
In force at end of the year	$77,746,854	$803,609 52
Deduct amount reinsured	21,151,117	227,086 86
Net amount in force	$56,595,737	$576,522 66

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$35,687,550	$400,530 93
More than one and not more than three years to run	18,508,525	145,376 95
More than three years to run	2,399,662	30,614 78
Net amount in force December 31, 1911	$56,595,737	$576,522 66

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$20,000 00
Losses incurred during the year: Fire	294,762 42
Amount loaned to officers and directors	5,000 00
Amount loaned to stockholders not officers	5,000 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$252,475 00
Less	93,250 00
Net risks written	159,225 00
Gross premiums received	3,194 48
Less	1,309 12
Net premiums received	1,885 36

GERMAN ALLIANCE INSURANCE COMPANY.

New York, N. Y.

(Incorporated February, 1897. Commenced business in California March 8, 1897.)

William N. Kremer, President. Charles G. Smith, Secretary.

Agent for service in California: Geo. H. Tyson, San Francisco.

CAPITAL.

Capital stock paid in cash	$400,000 00	
Amount of ledger assets December 31st of previous year		$1,756,281 76

INCOME.

	Fire.	
Gross premiums	$3,086,543 37	
Deduct gross amount paid for reinsurance, fire, $1,947,604.79; return premiums, fire, $552,098.71	2,499,703 50	
Total premiums (other than perpetuals)		$586,839 87
Interest on mortgage loans	$2.580 00	
Interest on bonds and dividends on stocks	64,295 33	
Interest from other sources	326 03	
Total interest and rents		67,201 36
Refund of taxes on bank shares		406 39
Profit on sale or maturity of ledger assets		2,679 25
Total income		$657,126 87
Total		$2,413,408 63

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$1,471,857 68	
Deduct amount received for salvage, fire, $36,442.36; reinsurance, fire, $1,112,102.81; discount, fire, $99.89	1,148,645 06	
Net amount paid for losses		$323,212 62

Expenses of adjustment, settlement of losses	$5,559 48
Commissions or brokerage	151,691 24
Salaries, fees and other charges of officers, directors, trustees, agents and employees	2,610 00
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses	3,399 72
State taxes on premiums	10,924 80
Insurance department licenses and fees	2,560 87
All other licenses, fees and taxes	3,479 83
Other disbursements: interest	29 12
Interest and dividends to stockholders	60,000 00
Book value of stocks and bonds carried to unlisted assets (schedule X)	100 00
Total disbursements	$563,567 68
Balance	$1,849,840 95

LEDGER ASSETS.

Mortgage loans on real estate	$54,000 00
Book value of bonds and stocks	1,602,467 52
Cash in office	200 00
Deposits in trust companies and banks on interest	44,068 21
Agents' balances, representing business written subsequent to October 1st, last	149,105 22
Total ledger assets	$1,849,840 95

Non-Ledger Assets.

Interest due and accrued on mortgages	$340 00	
Interest due and accrued on bonds	7,202 50	
Total		7,542 50
Gross assets		$1,857,383 45

Deduct Assets Not Admitted.

Bonds, $48,074.69; stocks, $17,496.33	65,571 02
Total admitted assets	$1,791,812 43

LIABILITIES.

Losses adjusted and unpaid, due and not due	$69,414 03	
Losses in process of adjustment, or in suspense	241,954 12	
Losses resisted	24,495 00	
Total claims for losses	$335,863 15	
Deduct reinsurance	236,896 00	
Net amount of unpaid losses		$98,967 15
Unearned premiums at 50 per cent on fire risks running one year or less	$206,732 88	
Unearned premiums pro rata on fire risks running more than one year	231,790 43	
Total unearned premiums as computed above		438,523 31
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		10,000 00
Commissions, brokerage and other charges due or to become due to agents and brokers		44,748 91
Total liabilities, except capital stock		$592,239 37
Cash capital	$400,000 00	
Surplus over all liabilities	799,573 06	
Surplus to policyholders		1,199,573 06
Total		$1,791,812 43

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$374,087,735	$3,907,878 38
Written during the year	294,286,743	3,086,543 37
Totals	$668,374,478	$6,994,421 75
Expired and terminated	219,625,647	2,833,306 35
In force at end of the year	$448,748,831	$4,161,115 40
Deduct amount reinsured	364,232,394	3,308,718 50
Net amount in force	$84,516,437	$852,396 90

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$40,186,037	$413,465 76
More than one and not more than three years to run	33,467,570	303,265 66
More than three years to run	10,862,830	135,665 48
Net amount in force December 31, 1911	$84,516,437	$852,396 90

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$75,000 00
Losses incurred during the year: Fire	343,681 77

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$11,452,152 00
Less	9,722,395 00
Net risks written	1,729,757 00
Gross premiums received	175,072 94
Less	146,300 78
Net premiums received	28,772 16
Net losses paid	10,582 09
Net losses incurred	12,372 47

GERMAN AMERICAN INSURANCE COMPANY.

New York, N. Y.

(Incorporated March, 1872. Commenced business in California October 10, 1873.)

William N. Kremer, President. C. G. Smith, Secretary.

Agent for service in California: Geo. H. Tyson, San Francisco.

CAPITAL.

Capital stock paid in cash $2,000,000 00		
*Amount of ledger assets December 31st of previous year, German American	$17,973,395 68	
Rochester German	2,623,340 05	
Extended at		$20,596,735 73

INCOME.

	Fire.	
Gross premiums	$13,532,613 24	
Deduct gross amount paid for reinsurance, fire, $2,877,286.23; return premiums, fire, $2,295,521.04	5,172,807 27	
Total premiums (other than perpetuals)		$8,359,805 97

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* The Rochester German Insurance Company of Rochester, N. Y., was merged with the German-American Insurance Company of New York May, 1911, and the operations of both companies since January 1, 1911, are embraced in this statement.

Interest on mortgage loans	$20,418 28	
Interest on bonds and dividends on stocks	653,045 59	
Interest from other sources	8,430 31	
Rents, including company's occupancy of its own buildings	229,618 12	
Total interest and rents		$911,512 30
Premiums collected on business placed with other companies, $7,875.47; refund of taxes on bank stock, $2,529.24		10,404 71
Agents' balances previously charged off		339 36
Profit on sale or maturity of ledger assets		52,745 61
Total income		$9,334,807 95
Total		$29,931,543 68

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$6,690,713 81	
Deduct amount received for salvage, fire, $75,414.86; reinsurance, fire, $1,815,151.57; discount, fire, $2,307.50	$1,892,873 93	
Net amount paid for losses		$4,797,839 88
Expenses of adjustment, settlement of losses		111,744 00
Commissions or brokerage		1,625,907 97
Allowances to local agencies for miscellaneous agency expenses		3,681 05
Salaries and expenses of special and general agents		472,055 02
Salaries, fees and other charges of officers, directors, trustees, agents and employees		315,654 12
Rents, including company's occupancy of its own buildings		75,148 39
Advertising, printing and stationery		97,320 26
Postage, telegrams, telephone and express		82,258 52
Legal expenses		6,471 58
Furniture and fixtures		10,415 08
Maps, including corrections		31,573 88
Underwriters' boards and tariff associations		94,263 59
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		51,741 01
Inspections and surveys		59,842 78
Repairs and expenses on real estate		88,617 40
Taxes on real estate		19,200 00
State taxes and premiums		160,513 24
Insurance department licenses and fees		42,466 97
All other licenses, fees and taxes		39,366 31
Other disbursements: Special expenses in connection with the merger of the Rochester German Insurance Company, $112,000; interest, $1,258.68; mercantile agency reports, special reports and reference books, $8,889.87; premiums on business placed with other companies, $15,605.59		137,754 14
Interest and dividends to stockholders		555,555 00
Agents' balances charged off		566 67
Loss on sale or maturity of ledger assets		85,841 62
Book value of stocks and bonds carried to unlisted assets (Schedule X)		171,322 51
Total disbursements		$9,136,565 99
Balance		$20,794,977 69

LEDGER ASSETS.

Book value of real estate	$2,670,527 59
Mortgage loans on real estate	227,975 00
Book value of bonds and stocks	15,242,674 98
Cash in office	12,125 12
Deposits in trust companies and banks not on interest	92,710 31
Deposits in trust companies and banks on interest	903,839 55

Agents' balances, representing business written subsequent to October 1st, last		$1,595,077 45
Agents' balances, representing business written prior to October 1, last		23,988 42
Temporary advance in retiring fractional shares in merger with the Rochester German Insurance Company, $6,304.75; furniture, fixtures and safes, $19,814.67		26,119 42
Total ledger assets		$20,894,977 69

Non-Ledger Assets.

Interest due and accrued on mortgages	$4.779 06	
Interest due and accrued on bonds	111,950 25	
Interest due and accrued on other assets	2,216 75	
Rents due and accrued on company's property	3,496 76	
Total		122,442 82
Gross assets		$20,917,420 51

Deduct Assets Not Admitted.

Furniture, fixtures and safes	$19,814 67	
Agents' balances, representing business written prior to October 1st, last	23,988 42	
Bonds and stocks	321,694 95	
Real estate	200,527 59	
Total		566,025 63
Total admitted assets		$20,351,394 88

LIABILITIES.

Losses adjusted and unpaid, due and not due	$144,229 00	
Losses in process of adjustment, or in suspense	1,060,495 35	
Losses resisted	103,115 00	
Total claims for losses	$1,307,839 35	
Deduct reinsurance	429,067 23	
Net amount of unpaid losses		$878,772 12
Unearned premiums at 50 per cent on fire risks running one year or less	$2,512,479 37	
Unearned premiums pro rata on fire risks running more than one year	5,642,527 56	
Total unearned premiums as computed above		$8,155,006 93
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		24,510 91
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		138,400 00
Commissions, brokerage and other charges due or to become due to agents and brokers		30.960 05
Return premiums, $5.377.06; reinsurance premiums, $300.723.68		306,100 74
All other liabilities: Rents paid in advance, $755.75; premiums due or to become due on business placed with other companies, $7,875.47; real estate taxes accrued, $6,600		15.231 22
Total liabilities, except capital stock		$9,548,981 97
Cash capital	$2,000,000 00	
Surplus over all liabilities	8,802,412 91	
Surplus to policyholders		10,802,412 91
Total		$20,351,394 88
Special reserve fund held under New York insurance law		$1,000,000 00

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$2,020,179,190	$19,516,398 66
Written during the year	1,378,039,970	13,532,613 24
Excess of original premiums over amount received for reinsurance		34,206 40
Totals	$3,398,220,060	$33,083,218 30
Expired and terminated	1,333,266,215	13,282,222 07
In force at end of the year	$2,064,953,845	$19,800,996 23
Deduct amount reinsured	419,965,549	3,862,251 23
Net amount in force	$1,644,988,296	$15,938,745 00

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$459,301,662	$5,024,958 75
More than one and not more than three years to run	899,153,274	7,831,771 67
More than three years to run	286,533,360	3,082,015 58
Net amount in force December 31, 1911	$1,644,988,296	$15,938,745 00

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$500,000 00
Losses incurred during the year: Fire	4,795,606 45

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Net risks written	$28,150,822 00
Net premiums received	453,078 67
Net losses paid	158,245 38
Net losses incurred	172,303 60

GERMAN FIRE INSURANCE COMPANY.

Peoria, Ill.

(Incorporated 1876. Commenced business in California August 29, 1900.)

BERNARD CREMER, President. CHAS. CREMER, Secretary.

Agent for service in California: DAVID DUNCAN, San Francisco.

CAPITAL.

Capital stock paid in cash	$200,000 00	
Amount of ledger assets December 31st of previous year		$712,568 79

INCOME.

	Fire.	
Gross premiums	$523,419 01	
Deduct gross amount paid for reinsurance, fire, $39,839.99; return premiums, fire, $95,717.36	134,577 35	
Total premiums (other than perpetuals)		$387,870 66
Interest on mortgage loans	$11,450 42	
Interest on collateral loans	195 69	
Interest on bonds and dividends on stocks	9,466 00	
Interest from deposit in bank	270 88	
Rents, including company's occupancy of its own buildings	9,000 00	
Total interest and rents		30,382 99

Agents' balances previously charged off	$1,886 50
Profit on sale or maturity of ledger assets	2,00 00
Total income	$422,140 15
Total	$1,134,708 94

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$269,667 31	
Deduct amount received for reinsurance, fire	24,103 42	
Net amount paid for losses		$245,563 89
Expenses of adjustment, settlement of losses		4,044 35
Commissions or brokerage		104,822 94
Allowances to local agencies for miscellaneous agency expenses		3,958 53
Salaries, fees and other charges of officers, directors, trustees, agents and employees		5,150 00
Rents, including company's occupancy of its own buildings		2,400 00
Advertising, printing and stationery		2,864 20
Postage, telegrams, telephone and express		2,020 05
Furniture and fixtures		360 92
Underwriters' boards and tariff associations		517 64
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		5,154 10
Taxes on real estate		2,399 34
State taxes on premiums		5,242 72
Insurance department licenses and fees		1,983 17
Fire marshal tax		289 02
Interest		2,747 77
Agents' balances charged off		87 93
Total disbursements		$394,754 41
Balance		$739,954 53

LEDGER ASSETS.

Book value of real estate	$205,000 00
Mortgage loans on real estate	208,021 00
Book value of bonds and stocks	200,899 96
Deposits in trust companies and banks on interest	64,556 64
Agents' balances, representing business written subsequent to October 1st, last	58,097 14
Agents' balances, representing business written prior to October 1st, last	3,379 79
Total ledger assets	$739,954 53

Non-Ledger Assets.

Interest due and accrued on mortgages	5,708 35
Market value of bonds and stocks over book value	58,060 04
Gross assets	$803,722 92

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	3,379 79
Total admitted assets	$800,343 13

LIABILITIES.

Losses adjusted and unpaid, due and not due	$12,550 39	
Losses in process of adjustment, or in suspense	31,213 00	
Losses resisted	2,973 22	
Total claims for losses	$46,736 61	
Deduct reinsurance	5,699 45	
Net amount of unpaid losses		$41,037 16

Unearned premiums at 50 per cent on fire risks running one year or less	$135,945 03	
Unearned premiums pro rata on fire risks running more than one year	209,057 96	
Total unearned premiums as computed above		$345,002 99
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		5,000 00
Commissions, brokerage and other charges due or to become due to agents and brokers		10,577 44
Reinsurance premiums		3,270 50
Total liabilities, except capital stock		$404,888 09
Cash capital	$200,000 00	
Surplus over all liabilities	195,455 04	
Surplus to policyholders		395,455 04
Total		$800,343 13

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$58,989,784	$796,198 99
Written during the year	37,785,453	523,419 01
Totals	$96,775,237	$1,319,618 00
Expired and terminated	40,588,304	576,168 43
In force at end of the year	$56,186,933	$743,449 57
Deduct amount reinsured	4,880,183	66,936 87
Net amount in force	$51,306,750	$676,512 70

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$18,954,476	$271,890 07
More than one and not more than three years to run	25,901,195	310,304 74
More than three years to run	6,451,079	94,317 89
Net amount in force December 31, 1911	$51,306,750	$676,512 70

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$10,000 00
Amount loaned to officers and directors	112,000 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$2,218,086 00
Less	712,660 00
Net risks written	1,505,426 00
Gross premiums received	44,329 54
Less	13,086 01
Net premiums received	31,243 53
Net losses paid	15,191 75
Net losses incurred	15,191 75

THE GERMAN FIRE INSURANCE COMPANY.

Pittsburg, Pa.

(Incorporated March 27, 1862. Commenced business in California 1908.)

A. E. Succop, President. A. H. Eckert, Secretary.

Agent for service in California: Dickson & Thieme, San Francisco.

CAPITAL.

Capital stock paid in cash	$300,000 00	
Amount of ledger assets December 31st of previous year		$1,095,513 44

INCOME.

	Fire.	
Gross premiums	$886,735 85	
Deduct gross amount paid for reinsurance, fire, $163,192.03; return premiums, fire, $141,220.85	304,412 88	
Total premiums (other than perpetuals)		$582,322 97
Interest on mortgage loans	$32,589 66	
Interest on collateral loans	6,180 73	
Interest on bonds and dividends on stocks	5,587 30	
Interest from other sources, deposit in banks and past due accounts	827 31	
Rents, including company's occupancy of its own buildings	10,685 00	
Total interest and rents		55,870 00
Agents' balances previously charged off		760 07
Profit on sale or maturity of ledger assets		1,424 00
Total income		$640.377 04
Total		$1,735,890 48

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$384,115 83	
Deduct amount received for salvage, fire, $2,660.46; reinsurance, fire, $41,363.84	44,024 30	
Net amount paid for losses		$340,091 53
Expenses of adjustment, settlement of losses		7,079 01
Commissions or brokerage		163,724 67
Allowances to local agencies for miscellaneous agency expenses		648 31
Salaries and expenses of special and general agents		16,582 53
Salaries, fees and other charges of officers, directors, trustees, agents and employees		32,481 05
Rents, including company's occupancy of its own buildings		8,000 00
Advertising, printing and stationery		6,095 93
Postage, telegrams, telephone and express		6,223 71
Legal expenses		534 66
Furniture and fixtures		311 10
Maps, including corrections		2,704 24
Underwriters' boards and tariff associations		4,578 74
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		2,032 01
Inspections and surveys		2,221 60
Repairs and expenses on real estate		2,885 89
Taxes on real estate		2,501 92
State taxes on premiums		13,059 11
Insurance department licenses and fees		3,536 05
All other licenses, fees and taxes		2,723 26
Other disbursements: Mercantile agency reports and reference books, $873.00; home office miscellaneous expense, $1,549,77; department office expense, $3,853.16		6,275 93
Interest and dividends to stockholders		36.000 00
Agents' balances charged off		2.604 57
Decrease in book value of ledger assets		12,343 50
Total disbursements		$675.239 32
Balance		$1,060,651 16

LEDGER ASSETS.

Book value of real estate	$135.838 59
Mortgage loans on real estate	549,513 24
Loans secured by pledge of bonds, stocks or other collaterals	91,830 52
Book value of bonds and stocks	98.901 14
Cash in office	1,750 06

Deposits in trust companies and banks not on interest		$70,438 35
Agents' balances, representing business written subsequent to October 1st, last		106,202 86
Agents' balances, representing business written prior to October 1st, last		6,076 40
Deposit with Philadelphia Underwriters' Association		100 00
Total ledger assets		$1,060,651 16

Non-Ledger Assets.

Interest due and accrued on mortgages	$9,648 80	
Interest due and accrued on bonds	162 50	
Interest due and accrued on other assets	1,132 00	
Rents due and accrued on company's property	105 00	
Total		11,048 30
Market value of real estate over book value		25,161 41
Market value of bonds and stocks over book value		7,095 86
Other non-ledger assets: Reinsurance receivable on paid losses, Jakon Insurance Company, Moscow, Russia, $699.80; Fireman's Fund Insurance Company, San Francisco, Cal., $510.71		1,210 51
Gross assets		$1,105,167 24

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last		6,076 40
Total admitted assets		$1,099,090 84

LIABILITIES.

Losses adjusted and unpaid, due and not due	$30,134 84	
Losses in process of adjustment, or in suspense	30,081 00	
Total claims for losses	$60,215 84	
Deduct reinsurance	8,099 76	
Net amount of unpaid losses		$52,116 08
Unearned premiums at 50 per cent on fire risks running one year or less	$171,496 23	
Unearned premiums pro rata on fire risks running more than one year	430,735 13	
Total unearned premiums as computed above		602,231 36
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		1,661 05
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		5,820 00
Commissions, brokerage and other charges due or to become due to agents and brokers		868 04
Total liabilities, except capital stock		$662,696 53
Cash capital	$300,000 00	
Surplus over all liabilities	136,394 31	
Surplus to policyholders		436,394 31
Total		$1,099,090 84

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$125,071,041	$1,298,133 95
Written during the year	78,144,240	886,735 85
Totals	$203,215,281	$2,184,869 80
Expired and terminated	82,887,542	908,778 92
In force at end of the year	$120,327,739	$1,276,090 88
Deduct amount reinsured	12,265,471	142,588 50
Net amount in force	$108,062,268	$1,133,502 38

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$27,598,782	$342,992 45
More than one and not more than three years to run	67,619,313	623,022 18
More than three years to run	12,844,173	167,487 75
Net amount in force December 31, 1911	$108,062,268	$1,133,502 38

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$40,000 00
Losses incurred during the year: Fire, $324,442.21; tornado, $408.80	324,851 01
Amount loaned to officers and directors	16,000 00
Amount loaned to stockholders not officers	54,053 52

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$4,209,894 00
Less	1,421,769 00
Net risks written	2,788,125 00
Gross premiums received	81,629 47
Less	27,338 34
Net premiums received	54,291 13
Net losses paid	16,220 23
Net losses incurred	15,713 88

GIRARD FIRE AND MARINE INSURANCE COMPANY.

Philadelphia, Pa.

(Incorporated March, 1853. Reëntered State in October, 1904.)

Henry M. Gratz, President. Edward J. Thomason, Secretary.

Agent for service in California: Edward E. Potter, San Francisco.

CAPITAL.

Capital stock paid in cash	$500,000 00	
Amount of ledger assets December 31st of previous year		$2,525,162 32

INCOME.

	Fire.	
Gross premiums	$1,330,766 83	
Deduct gross amount paid for reinsurance, fire, $243,225.63; return premiums, fire, $224,989.07	469,214 70	
Total premiums (other than perpetuals)		$862,552 13
Deposit premiums on perpetual risks		14,457 06
Interest on mortgage loans	$10,251 36	
Interest on collateral loans	3,055 64	
Interest on bonds and dividends on stocks	78,440 20	
Interest from other sources	738 87	
Rents, including company's occupancy of its own buildings	16,826 96	
Total interest and rents		109,313 03
Return premiums on perpetual reinsurance policies		1,009 92
Increase in book value of ledger assets		3,296 82
Total income		$990,628 96
Total		$3,515,791 28

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$540,002 68	
Deduct amount received for salvage, fire, $1,209.01; reinsurance, fire, $107,159.75	108,368 76	
Net amount paid for losses		$431,633 92
Expenses of adjustment, settlement of losses		10,029 73
Commissions or brokerage		230,579 45
Allowances to local agencies for miscellaneous agency expenses		5,352 68
Salaries and expenses of special and general agents		37,199 10
Salaries, fees and other charges of officers, directors, trustees, agents and employees		49,846 08
Rents, including company's occupancy of its own buildings		12,792 00
Advertising, printing and stationery		9,929 87
Postage, telegrams, telephone and express		2,770 61
Legal expenses		1,154 43
Furniture and fixtures		819 13
Maps, including corrections		3,512 88
Underwriters' boards and tariff associations		6,852 46
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		10,119 87
Inspections and surveys		4,122 53
Repairs and expenses on real estate		3,566 09
Taxes on real estate		4,128 56
State taxes on premiums		10,697 52
Insurance department licenses and fees		7,231 37
All other licenses, fees and taxes		7,357 19
Other disbursements		2,508 75
Deposit premiums returned		24,841 77
Interest and dividends to stockholders		100,000 00
Agents' balances charged off		381 26
Loss on sale or maturity of ledger assets		93 55
Decrease in book value of ledger assets		1,384 68
Total disbursements		$978,905 48
Balance		$2,536,885 80

LEDGER ASSETS.

Book value of real estate	$216,513 51
Mortgage loans on real estate	192,200 00
Loans secured by pledge of bonds, stocks or other collaterals	45,100 00
Book value of bonds and stocks	1,851,971 84
Cash in office	3,412 79
Deposits in trust companies and banks on interest	86,954 77
Agents' balances, representing business written subsequent to October 1st, last	135,490 42
Agents' balances, representing business written prior to October 1st, last	3,126 32
Bills receivable taken for fire risks	1,263 15
Philadelphia underwriters' deposit, $100.00; perpetual policies of insurance on company's real estate, $753.00	853 00
Total ledger assets	$2,536,885 80

Non-Ledger Assets.

Interest due and accrued on mortgages	$2,366 25	
Interest due and accrued on bonds	24,217 12	
Interest due and accrued on collateral loans	633 28	
Total		27,216 65
Market value of real estate over book value		55,236 49
Other non-ledger assets: Credit for unearned two fifths portion of the aggregate premium on fire insurance covering real estate listed under schedule apart		324 80
Gross assets		$2,619,663 74

Gross assets		$2,619,663 74

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$3,126 32	
Book value of ledger assets over market value, stocks and bonds	66,888 84	
Total		70,015 16
Total admitted assets		$2,549,648 58

LIABILITIES.

Losses adjusted and unpaid, due and not due	$3.352 00	
Losses in process of adjustment, or in suspense	74,711 00	
Losses resisted	1,500 00	
Total claims for losses	$79,563 00	
Deduct reinsurance	21,198 00	
Net amount of unpaid losses		$58.365 00
Unearned premiums at 50 per cent on fire risks running one year or less	$233,910 18	
Unearned premiums pro rata on fire risks running more than one year	714,392 12	
Total unearned premiums as computed above		948.302 30
Amount reclaimable by the insured on perpetual fire insurance policies		613,829 60
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		3,500 00
Total		$1,623,996 90
Losses and unearned premiums		32,798 78
Total liabilities, except capital stock		$1,591,198 72
Cash capital	$500,000 00	
Surplus over all liabilities	458,450 46	
Surplus to policyholders		958,450 46
Total		$2,549,648 58

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$222.173,654	$2,089,171 68
Written during the year	127,747,553	1,330,766 83
Totals	$349.921.207	$3,423,420 99
Expired and terminated	114,966.336	1,228,900 88
In force at end of the year	$234.954.871	$2.194.520 11
Deduct amount reinsured	33,021,506	386.328 43
Net amount in force	$201,933,365	$1,808,191 68

Perpetual risks not included above, $33,075.325; premiums on same, $682,032.89.

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$40.673.862	$467.820 36
More than one and not more than three years to run	87,657,732	815,048 48
More than three years to run	73,601,771	525,322 84
Net amount in force December 31, 1911	$201,933,365	$1,808,191 68

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$15,000 00
Losses incurred during the year: Fire	423,859 92

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$5,477,401 00
Less	1,988,350 00
Net risks written	3,489,051 00
Gross premiums received	88,055 85
Less	30,366 54
Net premiums received	57,689 31
Net losses paid	14,489 11
Net losses incurred	16,227 11

GLENS FALLS INSURANCE COMPANY.

Glens Falls, N. Y.

(Incorporated 1849. Commenced business in California January 31, 1900.)

J. L. Cunningham, President. E. W. West, Secretary.

Agent for service in California: E. E. Potter, San Francisco.

CAPITAL.

Capital stock paid in cash	$200,000 00	
Amount of ledger assets December 31st of previous year		$5,296,484 21

INCOME.

	Fire.	
Gross premiums	$2,779,168 33	
Deduct gross amount paid for reinsurance, fire, $332,173.64; return premiums, fire, $346,603.96	678,777 60	
Total premiums (other than perpetuals)		$2,100,390 73
Interest on mortgage loans, less $84.23	$92,664 50	
Interest on bonds and dividends on stocks	147,679 80	
Interest from other sources	12,030 57	
Rents, including company's occupancy of its own buildings, $3,000.00	4,821 00	
Total interest and rents		257,195 87
Increase in liabilities during the year on account of reinsurance treaties, $12,811.39; and personal credits, $156.55		12,967 94
Agents' balances previously charged off		19 11
Profit on sale or maturity of ledger assets		14,909 81
Increase in book value of ledger assets		64,183 65
Total income		$2,449,667 11
Total		$7,746,151 32

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$1,130,408 61	
Deduct amount received for salvage, fire, $7,398.43; reinsurance, fire, $115,845.61; discount, fire, $1,047.58	124,291 62	
Net amount paid for losses		$1,006,116 99
Expenses of adjustment, settlement of losses		31,384 65
Commissions or brokerage		445,804 02
Allowances to local agencies for miscellaneous agency expenses		109 17
Salaries and expenses of special and general agents		150,067 63
Salaries, fees and other charges of officers, directors, trustees, agents and employees		60,680 17
Rents, including company's occupancy of its own buildings, $3,000		12,000 00
Advertising, printing and stationery		25,950 11
Postage, telegrams, telephone and express		20,254 24

Legal expenses	$470 05
Furniture and fixtures	3,822 38
Maps, including corrections	5,913 79
Underwriters' boards and tariff associations	19,670 74
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses	9,034 06
Inspections and surveys	11,297 96
Repairs and expenses on real estate	483 71
Taxes on real estate	1,951 05
State taxes on premiums	29,243 31
Insurance department licenses and fees	10,058 56
All other licenses, fees and taxes	15,475 66
Interest and dividends to stockholders	220,000 00
Agents' balances charged off	640 69
Loss on sale or maturity of ledger assets	414 50
Decrease in book value of ledger assets	94,104 61
Total disbursements	$2,174,948 05
Balance	$5,571,203 27

LEDGER ASSETS.

Book value of real estate	$43,858 43
Mortgage loans on real estate	1,751,485 00
Book value of bonds and stocks	2,708,026 19
Cash in offices	15,705 57
Deposits in trust companies and banks on interest	709,254 28
Agents' balances, representing business written subsequent to October 1st, last	233,352 70
Agents' balances, representing business written prior to October 1st, last	8,961 10
Bills receivable taken for fire risks	560 00
Total ledger assets	$5,571,203 27

Non-Ledger Assets.

Interest due and accrued on mortgages	$13,690 95	
Interest due and accrued on bonds	26,450 99	
Interest due and accrued on other assets	4,469 95	
Rents due and accrued on company's property	100 00	
Total		44,711 89
Gross assets		$5,615,915 16

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	8,961 10
Book value of ledger assets over market value	7,152 50
Total admitted assets	$5,599,801 56

LIABILITIES.

Losses adjusted and unpaid, due and not due	$46,750 86	
Losses in process of adjustment, or in suspense	153,001 09	
Losses resisted	21,125 00	
Total claims for losses	$220,876 95	
Deduct reinsurance	40,029 29	
Net amount of unpaid losses		$180,847 66
Unearned premiums at 50 per cent on fire risks running one year or less	$539,613 74	
Unearned premiums pro rata on fire risks running more than one year	1,718,623 25	
Total unearned premiums as computed above		2,258,236 99

Dividends declared and unpaid to stockholders		$150,000 00
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		2,000 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		30,000 00
Reinsurance premiums		12,811 39
Reserve for contingent on mortgage loans		20,000 00
Reserve for building, furniture and fixture fund		25,000 00
Total liabilities, except capital		$2,678,896 04
Cash capital	$200,000 00	
Surplus over all liabilities	2,720,905 52	
Surplus to policyholders		2,920,905 52
Total		$5,599,801 56
Special reserve fund held under New York safety fund		$200,000 00

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force on the 31st day of December, as per line 5 under this heading in last year's statement	$419,133,349	$4,450,883 18
Written or renewed during the year, per income No. 5	54,241,963	2,779,168 33
Totals	$673,375,312	$7,230,051 51
Deduct those expired and marked off as terminated	209,774,252	2,350,393 10
In force at the end of the year	$463,601,060	$4,879,658 41
Deduct amount reinsured (schedule required)	41,168,373	490,901 36
Net amount in force	$422,432,687	$4,388,757 05

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$10,122,561 00
Less	4,163,021 00
Net risks written	5,959,540 00
Gross premiums received	157,608 39
Less	61,828 74
Net premiums received	95,779 65
Net losses paid	30,818 42
Net losses incurred	29,813 83

GLOBE AND RUTGERS FIRE INSURANCE COMPANY.

New York, N. Y.

(Incorporated 1899. Commenced business in California November 28, 1902.)

E. C. Jameson, President. W. H. Paulison, Secretary.

Agent for service in California: Arthur M. Brown, San Francisco.

CAPITAL.

Capital stock paid in cash	$400,000 00	
Amount of ledger assets December 31st of previous year		$5,461,554 45

INCOME.

	Fire.	
Gross premiums	$5,055,486 37	
Deduct gross amount paid for reinsurance, fire, $580,576.31; return premiums, fire, $793,602.83	1,374,179 14	
Total premiums (other than perpetuals)		$3,681,307 23

Total premiums		$3,681,307 23
Interest on mortgage loans	$4,110 00	
Interest on bonds and dividends on stocks	219,341 65	
Interest from other sources	1,326 68	
Rents, including company's occupancy of its own buildings	5,592 00	
Total interest and rents		230,370 33
Received account borrowed money $230,000; received account sale of rights and cash to equalize merger of Chatham and Phœnix National Banks, $17,111		247,111 00
Profit on sale or maturity of ledger assets		9,130 38
Total income		$4,167,918 94
Total		$9,629,473 39

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$2,253,098 91	
Deduct amount received for salvage, fire, $19,378.15; reinsurance, fire, $328,015.63; discount, fire, $3,924.65	351,318 43	
Net amount paid for losses		$1,901,780 48
Expenses of adjustment, settlement of losses		28,330 44
Commissions or brokerage		750,305 66
Salaries, fees and other charges of officers, directors, trustees, agents and employees		110,806 47
Rents, including company's occupancy of its own buildings		9,000 00
Advertising, printing and stationery		8,679 21
Postage, telegrams, telephone and express		6,884 90
Legal expenses		5,274 93
Furniture and fixtures		563 15
Maps, including corrections		4,058 74
Underwriters' boards and tariff associations		13,862 45
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		11,367 02
Inspections and surveys		11,425 30
Repairs and expenses on real estate		508 04
Taxes on real estate		1,172 17
State taxes on premiums		38,941 66
Insurance department licenses and fees		3,375 36
All other licenses, fees and taxes		20,005 81
Other disbursements		24,129 62
Interest and dividends to stockholders		160,000 00
Decrease in book value of ledger assets		17,111 00
Total disbursements		$3,127,582 41
Balance		$6,501,890 98

LEDGER ASSETS.

Book value of real estate	$72,945 00
Mortgage loans on real estate	108,700 00
Book value of bonds and stocks	5,236,125 63
Cash in office	1,464 28
Deposits in trust companies and banks not on interest	168,050 76
Deposits in trust companies and banks on interest	263,447 29
Agents' balances, representing business written subsequent to October 1st, last	625,014 98
Agents' balances, representing business written prior to October 1st, last	26,143 04
Total ledger assets	$6,501,890 98

Non-Ledger Assets.

Interest due and accrued on mortgages	$2,334 41	
Interest due and accrued on bonds	20,220 93	
Total		$22,555 34
Other non-ledger assets: Stocks owned by company on December 31, 1911, selling ex-dividend on December 31, 1911		10,806 50
Gross assets		$6,535,252 82

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$26,143 04	
Book value of ledger assets over market value	177,402 63	
Total		203,545 67
Total admitted assets		$6,331,707 15

LIABILITIES.

Losses adjusted and unpaid, due and not due	$87,339 00	
Losses in process of adjustment, or in suspense	270,077 00	
Losses resisted	45,953 00	
Total claims for losses	$403,369 00	
Deduct reinsurance	58,432 00	
Net amount of unapid losses		$344,937 00
Unearned premiums at 50 per cent on fire risks running one year or less	$1,592,063 41	
Unearned premiums pro rata on fire risks running more than one year	967,206 42	
Total unearned premiums as computed above		2,559,269 83
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		1,500 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		15,000 00
Commissions, brokerage and other charges due or to become due to agents and brokers		26,961 73
Due and to become due for borrowed money		365,000 00
Total liabilities, except capital stock		$3,312,668 56
Cash capital	$40,000 00	
Surplus over all liabilities	2,619,038 59	
Surplus to policyholders		3,019,038 59
Total		$6,331,707 15

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$340,958,877	$4,088,732 16
Written during the year	435,188,077	5,055,486 37
Excess of original premiums over amount received for reinsurance	71,276,173	394,852 12
Totals	$847,423,127	$9,539,070 65
Expired and terminated	387,791,034	4,154,784 54
In force at end of the year	$459,452,093	$5,384,286 11
Deduct amount reinsured	35,710,909	454,776 16
Net amount in force	$423,741,184	$4,929,509 95

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$272,389,333	$3,184,126 82
More than one and not more than three years to run	121,875,720	1,435,639 84
More than three years to run	29,476,131	309,743 29
Net amount in force December 31, 1911	$423,741,184	$4,929,509 95

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$100,000 00
Losses incurred during the year: Fire	1,877,154 51

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$16,091,432 00
Less	5,289,935 00
Net risks written	10,801,497 00
Gross premiums received	237,478 67
Less	62,594 04
Net premiums received	174,884 63
Net losses paid	40,979 50
Net losses incurred	45,424 03

HAMILTON FIRE INSURANCE COMPANY.

New York, N. Y.

(Incorporated May 22, 1852. Commenced business in California, 1910.)

E. C. Jameson, President. Arthur Lenssen, Jr., Secretary.

Agent for service in California: Arthur M. Brown, San Francisco.

CAPITAL.

Capital stock paid in cash	$200,004 00	
Amount of ledger assets December 31st of previous year		$316,174 78

INCOME.

	Fire.	
Gross premiums	$330,200 53	
Deduct gross amount paid for reinsurance, fire, $75,096.61; return premiums, fire, $46,733.91	121,830 52	
Total premiums (other than perpetuals)		$208,370 01
Interest on mortgage loans	$3,000 00	
Interest on bonds and dividends on stocks	8,983 71	
Interest from other sources	206 08	
Total interest and rents		12,189 79
Temporary loan	25,000 00	
J. J. Redfield (conscience)	47 75	
		25,047 75
Total income		$245,607 55
Total		$561,782 33

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$115,960 79	
Deduct amount received for salvage, fire, $535.89; reinsurance, fire, $5,080.59; discount, fire, $516.01	6,132 49	
Net amount paid for losses		$109,828 30

Expenses of adjustment, settlement of losses	$1,406 70
Commissions or brokerage	16,838 78
Salaries, fees and other charges of officers, directors, trustees, agents and employees	4,812 00
Rents, including company's occupancy of its own buildings	837 30
Advertising, printing and stationery	888 79
Postage, telegrams, telephone and express	386 99
Legal expenses	784 08
Maps, including corrections	83
Underwriters' boards and tariff associations	434 52
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses	582 93
Inspections and surveys	17 30
State taxes on premiums	503 50
Insurance department licenses and fees	264 00
Federal corporation tax	244 33
Franchise taxes	574 27
Miscellaneous expense	297 50
Interest on temporary loans	192 77
Interest on court judgments	100 61
Agents' balances charged off	788 22
Total disbursements	$139,783 72
Balance	$421,998 61

LEDGER ASSETS.

Mortgage loans on real estate	$60,000 00
Book value of bonds and stocks	282,495 15
Cash in office	637 56
Deposits in trust companies and banks not on interest	1,497 76
Deposits in trust companies and banks on interest	21,498 95
Agents' balances, representing business written subsequent to October 1st, last	55,125 69
Agents' balances, representing business written prior to October 1st, last	743 50
Total ledger assets	$421,998 61

Non-Ledger Assets.

Interest due and accrued on mortgages	$6 95	
Interest due and accrued on bonds	1,469 98	
Total		1,476 93
Reinsurance losses due and receivable		7,388 58
Gross assets		$430,075 90

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$743 50	
Book value of ledger assets over market value	13,375 15	
Total		14,118 65
Total admitted assets		$415,957 25

LIABILITIES.

Losses adjusted and unpaid, due and not due	$1,386 00	
Losses in process of adjustment, or in suspense	37,324 00	
Losses resisted	800 00	
Total claims for losses	$39,510 00	
Deduct reinsurance	9,251 40	
Net amount of unpaid losses		$30,258 60

Unearned premiums at 50 per cent on fire risks running one year or less	$84,999 82	
Unearned premiums pro rata on fire risks running more than one year	17,450 10	
Total unearned premiums as computed above		$102,449 92
Principal unpaid on scrip or certificates of profits authorized or ordered to be redeemed		51 36
Interest due or accrued, remaining unpaid		86 11
Dividends declared and unpaid, to stockholders		734 85
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		2,500 00
Commissions, brokerage and other charges due or to become due to agents and brokers		4,134 43
Due and to become due for borrowed money		25,000 00
Reserve for miscellaneous expense (if any)		500 00
Total liabilities, except capital stock		$165,715 27
Cash capital	$200,004 00	
Surplus over all liabilities	50,237 98	
Surplus to policyholders		250,241 98
Total		$415,957 25

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$9,131,329	$116,467 66
Written during the year	24,940,446	330,200 53
Totals	$34,071,798	$446,668 19
Expired and terminated	13,874,484	176,129 38
In force at end of the year	$20,197,314	$270,538 81
Deduct amount reinsured	5,494,583	73,643 16
Net amount in force	$14,702,731	$196,895 65

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$12,288,154	$169,999 64
More than one and not more than three years to run	1,604,250	19,562 89
More than three years to run	810,327	7,333 12
Net amount in force December 31, 1911	$14,702,731	$196,895 65

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$35,000 00
Losses incurred during the year: Fire	141,029 49

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$817,248 00
Less	472,801 00
Net risks written	344,447 00
Gross premiums received	12,719 70
Less	6,936 48
Net premiums received	5,783 22
Net losses paid	512 74
Net losses incurred	2,392 74

THE HANOVER FIRE INSURANCE COMPANY.

New York, N. Y.

(Incorporated April, 1852. Commenced business in California October 25, 1869.)

R. Emory, President. Jos. McCord, Secretary.

Agent for service in California: Bertheau, Selbach & Bertheau, San Francisco, Cal.

CAPITAL.

Capital stock paid in cash	$1,000,000 00	
Amount of ledger assets December 31st of previous year		$4,541,252 60

INCOME.

	Fire.	
Gross premiums	$3,406,661 22	
Deduct gross amount paid for reinsurance, fire, $569,437.07; return premiums, fire, $465,360.38	1,034,797 45	
Total premiums (other than perpetuals)		$2,371,863 77
Interest on mortgage loans	$175 00	
Interest on bonds and dividends on stocks	139,538 32	
Interest from other sources	2,235 08	
Rents, including company's occupancy of its own buildings	73,588 46	
Total interest and rents		215,536 86
Agents' balances previously charged off		81 67
Total income		$2,587,482 30
Total		$7,128,734 90

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$1,609,816 67	
Deduct amount received for salvage, fire, $7,854.18; reinsurance, fire, $314,249.05; discount, fire, $1,718.22	323,821.45	
Net amount paid for losses		$1,285,995 22
Expenses of adjustment, settlement of losses		98,677 96
Commissions or brokerage		467,919 36
Salaries and expenses of special and general agents		108,611 04
Salaries, fees and other charges of officers, directors, trustees, agents and employees		124,626 78
Rents, including company's occupancy of its own buildings		23,528 69
Advertising, printing and stationery		33,276 85
Postage, telegrams, telephone and express		23,925 87
Legal expenses		847 69
Furniture and fixtures		1,153 61
Maps, including corrections		10,853 41
Underwriters' boards and tariff associations		18,664 42
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		20,360 10
Inspections and surveys		24,890 01
Repairs and expenses on real estate		22,789 95
Taxes on real estate		14,915 16
State taxes on premiums		44,182 98
Insurance department licenses and fees		13,072 92
All other licenses, fees and taxes		11,313 12
Other disbursements: Office expenses and supplies, $2,325.17; mercantile agency reports, $2,441.50; auditing books, $1,200		5,966 67
Interest and dividends to stockholders		195,000 00
Agents' balances charged off		3,903 59
Loss on sale or maturity of ledger assets		4,073 75
Total disbursements		$2,558,649 15
Balance		$4,570,085 75

LEDGER ASSETS.

Book value of real estate		$906,581 0
Mortgage loans on real estate		3.500 0
Book value of bonds and stocks		3,115,095 7
Cash in office		1,710 0
Deposits in trust companies and banks not on interest		42,707 4
Deposits in trust companies and banks on interest		100.009 5
Agents' balances, representing business written subsequent to October 1st, last		398.455 8
Agents' balances, representing business written prior to October 1st, last		2.026 1
Total ledger assets		$4,570.085 7

Non-Ledger Assets.

Interest due and accrued on mortgages	$14 58	
Interest due and accrued on bonds	29,664 96	
Rents due and accrued on company's property	320 96	
Total		$30.000 5
Market value of real estate over book value		222.891 9
Other non-ledger assets: Unpaid reinsurance on paid losses		6.941 7
Gross assets		$4,829.919 9

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$2,026 11	
Book value of ledger assets over market value	9,710 78	
Special deposits to secure liabilities in states of Georgia and Virginia	62,200 00	
Total		73.936 8
Total admitted assets		$4,755.983 0

LIABILITIES.

Losses adjusted and unpaid, due and not due	$76,812 33	
Losses in process of adjustment, or in suspense	233,642 88	
Losses resisted	21.906 33	
Total claims for losses	$332.361 54	
Deduct reinsurance	77,513 68	
Net amount of unpaid losses		$254,847 8
Unearned premiums at 50 per cent on fire risks running one year or less	$726,090 66	
Unearned premiums pro rata on fire risks running more than one year	1,549,197 57	
Total unearned premiums as computed above		2,275.288 2
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		8.556 9
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		45,000 0
Commissions, brokerage and other charges due or to become due to agents and brokers		8.239 1
Return premiums, $7,356.71; reinsurance premiums, $33,444.46		40.801 1
Rents paid in advance		3.037 8
Total		$2,635.771 1
Losses, $4,939.79; unearned premiums, $55,590.63		60,530 4
Total liabilities, except capital stock		$2,575,240 7
Cash capital	$1,000.000 00	
Surplus over all liabilities	1,180,742 30	
Surplus to policyholders		2,180,742 3
Total		$4,755,983 0

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force on the 31st day of December, as per line five under this heading in last year's statement	$478,407,699 46	$4,900,659 36
Written or renewed during the year, per Income No. 5	329,749,067 78	3,406,661 22
Excess of original premiums over amount received for reinsurance	------------	4,418 92
Total	$808,156,767 24	$8,311,739 50
Deduct those expired and marked off as terminated	310,871,644 41	3,203,461 26
In force at the end of the year	$497,285,122 83	$5,108,278 24
Deduct amount reinsured (schedule required)	72,877,769 06	718,629 20
Net amount in force	$424,407,353 77	$4,389,649 04

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$150,000 00
Losses incurred during the year, fire	1,340,064 71

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$7,544,041 00
Less	2,634,544 00
Net risks written	4,909,497 00
Gross premiums received	116,962 71
Less	36,783 82
Net premiums received	80,178 89
Net losses paid	24,165 47
Net losses incurred	28,016 54

HARTFORD FIRE INSURANCE COMPANY.

Hartford, Conn.

(Incorporated May, 1810. Commenced business in California, 1870.)

Chas. E. Chase, President. S. E. Locke, Secretary.

Agent for service in California: Palache & Hewitt, San Francisco.

CAPITAL.

Capital stock paid in cash	$2,000,000 00	
Amount of ledger assets December 31st of previous year		$23,713,670 64

INCOME.

	Fire.	Marine and inland.	
Gross premiums	$19,427,280 31	$869,199 46	
Deduct gross amount paid for reinsurance, fire, $2,064,412.40; marine and inland, $16,694.08; return premiums, fire, $2,559,298.41; marine and inland, $177,158.16	4,633,710 81	193,852 24	
Total premiums (other than perpetuals)	$14,803,569 50	$675,347 22	$15,478,916 72
Interest on mortgage loans		$22,811 89	
Interest on collateral loans		479 94	
Interest on bonds and dividends on stocks		887,426 00	
Interest from other sources		15,047 04	
Rents, including company's occupancy of its own buildings		53,209 96	
Total interest and rents			978,974 83

Total premiums and rents	$16,457,890 55
From other sources: Rent from property previously sold, $380; received Trader's Insurance Company in liquidation, $223.38; premiums on exchange of bonds, $1,162.50; received from National Bank of North America in liquidation, $400,000	5,765 88
Increase in liabilities during the year on account of reinsurance treaties	31,380 26
Agents' balances previously charged off	543 74
Total income	$16,495,581 43
Total	$40,209,252 07

DISBURSEMENTS.

	Fire.	Marine and inland.	
Gross amount paid for losses	$9,198,635 10	$315,824 04	
Deduct amount received for salvage, fire, $55,171.61; marine and inland, $7,701.96; reinsurance, fire, $671,034.44; marine and inland, $566.14	726,206 05	8,268 10	
Net amount paid for losses	$8,472,429 05	$307,555 94	$8,779,984 99
Expenses of adjustment, settlement of losses			170,496 19
Commissions or brokerage			2,879,040 65
Salaries and expenses of special and general agents			760,627 00
Salaries, fees and other charges of officers, directors, trustees, agents and employees			653,539 46
Rents, including company's occupancy of its own buildings			120,594 07
Advertising, printing and stationery			178,219 08
Postage, telegrams, telephone and express			129,763 97
Legal expenses			11,553 96
Furniture and fixtures			33,839 52
Maps, including corrections			35,512 35
Underwriters' boards and tariff associations			206,534 94
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses			83,742 88
Inspections and surveys			56,139 74
Repairs and expenses on real estate			25,208 85
Taxes on real estate			12,224 63
State taxes on premiums			260,650 70
Insurance department licenses and fees			52,803 81
All other licenses, fees and taxes			201,926 10
Other disbursements: Commercial reports and ratings, $9,322.80; toilet supplies, ice, water, $4,092.74; insurance of all classes, $3,667.15; newspapers and periodicals, $2,668.58; interest on reserve held for remaining companies, $18,503.25			38,254 52
Interest and dividends to stockholders			700,000 00
Agents' balances charged off			12,080 79
Loss on sale or maturity of ledger assets			44,541 55
Decrease in book value of ledger assets			5,162 50
Total disbursements			$15,452,442 25
Balance			$24,756,809 82

LEDGER ASSETS.

Book value of real estate	$763,712 63
Mortgage loans on real estate	429,666 67
Loans secured by pledge of bonds, stocks or other collaterals	8,250 00
Book value of bonds and stocks	20,108,166 47
Cash in office	4,115 76
Deposits in trust companies and banks not on interest	99,747 44
Deposits in trust companies and banks on interest	899,814 54
Agents' balances, representing business written subsequent to October 1st, last	2,384,551 09

Agents' balances, representing business written prior to October 1st, last		$55,285 22
Certificate of treasurer of Cook County, Ill., for balance due on sale of real estate		3,500 00
Total ledger assets		$24,756,809 82

Non-Ledger Assets.

Interest due and accrued on mortgages	$3,733 37	
Interest due and accrued on bonds	247,478 11	
Interest due and accrued on collateral loans	213 84	
Rents due and accrued on company's property	1,447 33	
Total		252,872 65
Market value of real estate over book value		5,387 37
Market value of bonds and stocks over book value		490,054 79
Gross assets		$25,505,124 63

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last		55,285 22
Total admitted assets		$25,449,839 41

LIABILITIES.

Losses adjusted and unpaid, due and not due	$487,051 76	
Losses in process of adjustment, or in suspense	815,347 61	
Losses resisted	99,361 00	
Total claims for losses	$1,401,760 37	
Deduct reinsurance	132,402 84	
Net amount of unpaid losses		$1,269,357 53
Unearned premiums at 50 per cent on fire risks running one year or less	$5,226,102 61	
Unearned premiums pro rata on fire risks running more than one year	8,615,508 31	
Unearned premiums at 50 per cent on inland navigation risks	319,163 48	
Total unearned premiums as computed above		14,160,774 40
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		200,000 00
Total liabilities, except capital		$15,630,131 93
Cash capital	$2,000,000 00	
Surplus over all liabilities	7,819,707 48	
Surplus to policyholders		9,819,707 48
Total		$25,449,839 41

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$2,325,323,280	$26,441,683 03
Written during the year	1,731,642,318	19,427,280 31
Totals	$4,056,965,598	$45,868,963 34
Expired and terminated	1,571,813,000	18,363,412 96
In force at end of the year	$2,485,152,598	$27,505,550 38
Deduct amount reinsured	117,997,002	864,168 77
Net amount in force	$2,367,155,596	$26,641,381 61

	Marine and inland risks.	Premiums.
In force December 31, 1910	$21,833,975	$512,028 77
Written during the year	41,876,259	869,199 46
Totals	$63,710,234	$1,381,228 23
Expired and terminated	39,038,138	742,901 28
In force at end of the year	$24,672,096	$638,326 95
Net amount in force	$24,672,096	$638,326 95

MISCELLANEOUS.

Losses incurred during the year: Fire, $8,263,449.27; marine and inland, $330,966.66	$8,594,415 93
Amount loaned to stockholders not officers	13,750 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.	Marine and inland.
Gross risks written	$70,668,766 00	$2,193,910 00
Less	24,726,631 38	592,815 00
Net risks written	45,942,134 62	1,601,095 00
Gross premiums received	1,045,365 06	50,153 95
Less	229,903 25	13,904 12
Net premiums received	815,461 81	36,249 73
Net losses paid	245,837 86	17,932 74
Net losses incurred	272,186 90	25,271 45

THE HOME INSURANCE COMPANY.

New York, N. Y.

(Incorporated April, 1853. Commenced business in California November 13, 1868.)

Elbridge G. Snow, President. Areunat M. Burtis, Chas. L. Tyher, Secretaries.

Agent for service in California: Harry L. Roff, San Francisco.

CAPITAL.

Capital stock paid in cash	$3,000,000 00	
Amount of ledger assets December 31st of previous year		$30,260,428 78

INCOME.

	Fire.	Marine and inland.	
Gross premiums	$17,668,633 10	$1,168,690 54	
Deduct gross amount paid for reinsurance, fire, $3,289,246.59; marine and inland, $297,046.33; return premiums, fire, $2,332,396.55; marine and inland, $206,411.29	5,621,643 14	503,457 62	
Total premiums (other than perpetuals)	$12,046,989 96	$665,232 92	12,712,222 88

Interest on mortgage loans	$2,405 50	
Interest on bonds and dividends on stocks	1,135,840 50	
Interest from other sources	34,217 50	
Rents, including company's occupancy of its own buildings	10,667 95	
Total interest and rents		1,183,131 45
From other sources: Dividends unlisted securities, $319.20; sale Holland Trust Co. stock (not in assets), $8,000.00; dividends Franklin Trust Co., in liquidation, $800.00; proceeds H. H. Bigelow life policy, $6,011.07; conscience money, $425.00		15,555 27
Agents' balances previously charged off		112 15
Profit on sale or maturity of ledger assets		166,904 09
Total income		$14,077,925 84
Total		$44,338,354 62

DISBURSEMENTS.

	Fire.	Marine and inland.	
Gross amount paid for losses	$7,732,658 39	$593,071 97	
Deduct amount received for salvage, fire, $57,498.89; marine and inland, $23,638.33; reinsurance, fire, $1,645,997.92; marine and inland, $170,048.09	1,703,496 81	193,686 42	
Net amount paid for losses	$6,029,161 58	$399,385 55	$6,428,547 13
Expenses of adjustment, settlement of losses			150,139 00
Commission or brokerage			2,381,857 61
Allowance to local agencies for miscellaneous agency expenses			5,724 12
Salaries and expenses of special and general agents			395,466 53
Salaries, fees and other charges of officers, directors, trustees, agents and employees			461,809 83
Rents, including company's occupancy of its own buildings			128,193 11
Advertising, printing and stationery			224,004 13
Postage, telegrams, telephone and express			101,014 32
Legal expenses			2,804 14
Furniture and fixtures			9,395 76
Maps, including corrections			19,631 26
Underwriters' boards and tariff associations			108,321 11
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses			43,295 19
Inspections and surveys			88,695 59
State taxes on premiums			282,093 67
Insurance department licenses and fees			45,960 24
All other licenses, fees and taxes			11,629 76
Other disbursements: Traveling expenses (other than item No. 7), $4,948.91; exchange, $15,136.53; lunch for officers and home office employees, $36,528.84; incidentals, $550.94; purchase Southern Adjustment Bureau stock (not in assets), $300.00			57,465 22
Interest and dividends to stockholders			1,050,000 00
Agents' balances charged off			3,628 15
Loss on sale or maturity of ledger assets			198,052 52
Decrease in book value of ledger assets			69,873 45
Total disbursements			$12,267,601 84
Balance			$32,070,752 78

LEDGER ASSETS.

Mortgage loans on real estate	$38,300 00
Book value of bonds and stocks	27,847,530 98
Deposits in trust companies and banks not on interest	42,989 71
Deposits in trust companies and banks on interest	1,748,035 43
Agents' balances, representing business written subsequent to October 1st, last	1,816,796 60
Agents' balances, representing business written prior to October 1st, last	105,531 20
Bills receivable taken for fire risks	61,038 65
Counter and office premiums uncollected	410,530 21
Total ledger assets	$32,070,752 78

Non-Ledger Assets.

Interest due and accrued on bonds	214,053 00
Market value of bonds and stocks over book value	28,329 02
Gross assets	$32,313,134 80

Gross assets		$32,313,134 80

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$105,531 20	
Bills receivable, past due, taken for marine, inland and fire risks	61,038 65	
Total		$166,569 25
Total admitted assets		$32,146,564 95

LIABILITIES.

Losses adjusted and unpaid, due and not due	$196,850 29	
Losses in process of adjustment, or in suspense	1,667,095 34	
Losses resisted	100,225 35	
Total claims for losses	$1,964,170 98	
Deduct reinsurance	819,734 64	
Net amount of unpaid losses		$1,144,436 34
Unearned premiums at 50 per cent on fire risks running one year or less	$3,869,017 00	
Unearned premiums pro rata on fire risks running more than one year	7,510,438 00	
Unearned premiums at 50 per cent on inland navigation risks	337,015 00	
Unearned premiums at 100 per cent on marine risks	82,165 00	
Total unearned premiums as computed above		11,798,635 00
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		100,000 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		200,000 00
Commissions, brokerage and other charges due or to become due to agents and brokers		77,606 97
Reinsurance premiums		210,445 93
Reserve as a conflagration surplus		1,800,000 00
Total liabilities, except capital stock		$15,331,124 24
Cash capital	$3,000,000 00	
Surplus over all liabilities	13,815,440 71	
Surplus to policyholders		16,815,440 71
Total		$32,146,564 95
Special reserve fund held under surplus law		$1,500,000 00

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$2,430,626,305	$23,605,783 00
Written during the year	1,822,918,717	17,668,633 10
Excess of original premiums over amount received for reinsurance	----------	1,186 00
Totals	$4,253,545,022	$41,275,602 10
Expired and terminated	1,722,499,646	16,174,249 10
In force at end of the year	$2,531,045,376	$25,101,353 00
Deduct amount reinsured	340,067,860	3,112,757 00
Net amount in force	$2,190,977,516	$21,988,596 00

	Marine and inland risks.	Premiums.
In force December 31, 1910	$33,372,131	$834,758 00
Written during the year	241,314,557	1,168,690 54
Totals	$274,686,688	$2,003,448 54
Expired and terminated	240,345,062	1,098,485 54
In force at end of the year	$34,341,626	$904,963 00
Deduct amount reinsured	6,024,250	148,768 00
Net amount in force	$28,317,376	$756,195 00

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$791,638,063	$7,738,034 00
More than one and not more than three years to run	1,022,115,977	9,815,753 00
More than three years to run	377,223,476	4,434,809 00
Net amount in force December 31, 1911	$2,190,977,516	$21,988,596 00

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$300,000 00
Losses incurred during the year: Fire, $6,004,934.54; marine and inland, $399,733,21	6,404,667 73

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.	Marine and inland.
Gross risks written	$67,548.046 00	$2,294,415 00
Less	13,432,280 00	327,707 00
Net risks written	54,115,766 00	1,966,708 00
Gross premiums received	1,104,284 31	31,188 44
Less	168,184 84	6,450 05
Net premiums received	936,099 47	24,738 39
Net losses paid	252,784 90	5,598 87
Net losses incurred	265,494 61	5,535 40

HOME FIRE INSURANCE COMPANY OF UTAH.

Salt Lake City, Utah.

(Incorporated September 30, 1886. Commenced business in California, 1909.)

HEBER J. GRANT, President. HORACE G. WHITNEY, Secretary.

Agent for service in California: H. R. MANN & Co., San Francisco.

CAPITAL.

Capital stock paid in cash	$300,000 00	
Amount of ledger assets, December 31st of previous year		$786,063 24

INCOME.

	Fire	
Gross premiums	$227,473 68	
Deduct gross amount paid for reinsurance, fire, $92,781.82; return premiums, fire, $43,246.57	136,028 39	
Total premiums (other than perpetuals)		$91,445 29
Interest on mortgage loans	$10,848 38	
Interest on collateral loans	1,560 78	
Interest on bonds and dividends on stocks	34,438 13	
Interest from other sources	290 90	
Rents, including company's occupancy of its own buildings	7,641 92	
Total interest and rents		54,780 11
Profit on sale or maturity of ledger assets		7,505 00
Increase in book value of ledger assets		64,633 00
Total income		$218.363 40
Total		$1,004,426 64

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$57,136 93	
Reinsurance, fire	20,687 15	
Net amount paid for losses		$36,449 78
Commissions or brokerage		25,035 81
Salaries and expenses of special and general agents		1,460 70
Salaries, fees and other charges of officers, directors, trustees, agents and employees		4,410 00
Advertising, printing and stationery		1,891 97
Postage, telegrams, telephone and express		1,343 27
Legal expenses		558 95
Maps, including corrections		355 17
Underwriters' boards and tariff associations		2,152 78
Inspections and surveys		294 74
Repairs and expenses on real estate		904 36
Taxes on real estate		1,807 29
State taxes on premiums		2,162 15
Insurance department licenses and fees		1,127 00
All other licenses, fees and taxes		276 42
Other disbursements, viz:		47 50
Interest and dividends to stockholders		42,000 00
Decrease in book value of ledger assets		230 00
Total disbursements		$122,507 89
Balance		$881,918 75

LEDGER ASSETS.

Book value of real estate	$109,000 00
Mortgage loans on real estate	176,150 00
Loans secured by pledge of bonds, stocks or other collaterals	4,500 00
Book value of bonds and stocks	533,103 00
Deposits in trust companies and banks not on interest	6,847 32
Agents' balances, representing business written subsequent to October 1st, last	14,404 39
Bills receivable taken for fire risks	914 04
Other ledger assets, demand loans	37,000 00
Total ledger assets	$881,918 75

Non-Ledger Assets.

Market value of bonds and stocks over book value	45,962 10
Gross assets	$927,880 85
Total admitted assets	$927,880 85

LIABILITIES.

Losses in process of adjustment, or insuspense	$22,559 05	
Lossses resisted	2,000 00	
Total claims for losses	$24,559 05	
Deduct reinsurance	14,555 00	
Net amount of unpaid losses		$10,004 05
Unearned premiums at 50 per cent on fire risks running one year or less	$27,385 45	
Unearned premiums pro rata on fire risks running more than one year	52,161 04	
Total unpaid premiums as computed above		79,546 49
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		4,000 00
Total liabilities, except capital stock		$93,550 54

Cash capital	$300,000 00	
Surplus over all liabilities	534,330 31	
Surplus to policyholders		$834,330 31
Total		$927,880 85

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$17,796,285	$246,166 05
Written during the year	16,849,586	227,473 68
Totals	$34,645,871	$473,639 73
Expired and terminated	14,233,201	203,551 56
In force at end of the year	$20,412,670	$270,088 17
Deduct amount reinsured	8,413,013	118,861 93
Net amount in force	$11,999,657	$151,226 24

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$3,304,752	$54,770 89
More than one and not more than three years to run	8,631,655	95,282 96
More than three years to run	63,250	1,172 39
Net amount in force December 31, 1911	$11,999,657	$151,226 24

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$62,500 00
Losses incurred during the year, fire	42,224 51

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$1,483,419 00
Less	593,253 00
Net risks written	890,166 00
Gross premiums received	24,113 88
Less	8,004 54
Net premiums received	16,109 34
Net losses paid	5,821 59
Net losses incurred	6,364 68

INDIANA LUMBERMEN'S MUTUAL INSURANCE COMPANY.

Indianapolis, Ind.

(Incorporated April 1, 1897. Commenced business in California October, 1911.)

C. C. FOSTER, President. F. B. FOWLER, Secretary.

Agent for service in California: ALBERT H. ELLIOTT, San Francisco, Cal.

CAPITAL.

Amount of ledger assets December 31st of previous year	$261,283 13

INCOME.

	Fire.	
Gross premiums	$296,168 75	
Deduct gross amount paid for: Return premiums, fire	37,712 86	
Total premiums (other than perpetuals)		$258,455 89

Interest on mortgage loans	$7,047 28	
Interest on bonds and dividends on stocks	3,211 45	
Interest from other sources, bank balances	454 70	
Rents, including company's occupancy of its own buildings	1,961 25	
Total interest and rents		$12,674 68
Profit on sale or maturity of ledger assets		631 05
Total income		$271,761 62
Total		$533,044 75

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$120,170 48	
Deduct amount received for: Discount, fire	400 10	
Net amount paid for losses		$119,770 38
Expenses of adjustment, settlement of losses		417 77
Salaries, fees and other charges of officers, directors, trustees, agents and employees		21,134 39
Rents, including company's occupancy of its own buildings		1,200 00
Advertising, printing and stationery		1,745 96
Postage, telegrams, telephone and express		1,334 75
Legal expenses		50 00
Furniture and fixtures		116 25
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		423 68
Inspections and surveys		7,907 53
Repairs and expense on real estate		752 45
Taxes on real estate		310 31
State taxes on premiums		1,774 18
Insurance department licenses and fees		1,045 17
All other licenses, fees and taxes: Local tax		1,190 03
Reinsurance		112 50
Traveling expense		410 60
General expense		647 40
Dividends to policyholders		79,766 20
Decrease in book value of ledger assets		1,478 22
Total disbursements		$241,587 77
Balance		$291,456 98

LEDGER ASSETS.

Book value of real estate	$29,500 00
Mortgage loans on real estate	101,550 00
Book value of bonds and stocks	125,000 00
Deposits in trust companies and banks on interest	24,807 14
Agents' balances representing business written subsequent to October 1st, lats	10,599 84
Total ledger assets	$291,456 98

Non-Ledger Assets.

Interest due and accrued on mortgages	$1,645 44	
Interest due and accrued on bonds	2,685 87	
Interest due and accrued on other assets, bank balances	175 86	
Total		4,507 17
Other non-ledger assets: Contingent assets		762,009 45
Gross assets		$1,057,973 60
Total admitted assets		$1,057,973 60

LIABILITIES.

Losses adjusted and unpaid, due and not due		$9,365 00
Unearned premiums at 50 per cent on fire risks running one year or less		127,001 58
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		2,899 00
Inspection		360 00
Total liabilities, except capital stock		$139,625 58
Cash capital, contingent assets	$762,009 45	
Surplus over all liabilities	156,338 57	
Surplus to policyholders		918,348 02
Total		$1,057,973 60

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$9,738,957	$223,557 21
Written during the year	13,215,794	296,168 75
Totals	$22,954,751	519,725 96
Expired and terminated	11,465,785	265,722 81
In force at end of the year	$11,488,966	$254,003 15
Net amount in force	$11,488,966	$254,003 15

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$11,488,966	$254,003 15
Net amount in force December 31, 1911	$11,488,966	$254,003 15

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$7,500 00
Losses incurred during the year: Fire	129,535 48

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$318,950 00
Less	48,000 00
Net risks written	270,950 00
Gross premiums received	5,955 43
Less: Return premiums, $894.60; dividends, $1,698.78	2,593 38
Net premiums received	3,362 05
Net losses paid	717 99
Net losses incurred	717 99

INDIVIDUAL UNDERWRITERS.

New York, N. Y.

(Formed in 1881. Commenced business in California, 1911.)

JOHN R. WATERS, Attorney in Fact, New York City.

Insurance Commissioner, attorney for service in San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year	$838,291 17

INCOME.

	Fire.	
Gross premiums	$376,530 35	
Deduct gross amount paid for return premiums, fire	18,110 87	
Total premiums (other than perpetuals)		$358,419 48

Interest on bonds and dividends on stocks	$12,000 00	
Interest from other sources	12,408 22	
Total interest and rents		$24,408 2
From other sources: Cash deposits from subscribers		27,500 0
Increase in book value of ledger assets		4,500 0
Total		$1,253,118 8

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$132,145 86	
Deduct amount received for salvage, fire	1,356 34	
Net amount paid for losses		$130,789 5
Expenses of adjustment, settlement of losses		976 0
Commissions		56,479 5
Legal expenses		2,492 5
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		2,707 9
State taxes on premiums		924 8
Insurance department licenses and fees		313 5
Cash deposits refunded to retired subscribers		26,500 0
Paid subscribers for insurance and dividends		230,194 4
Decrease in book value of ledger assets		687 5
Balance		$453,233 1

LEDGER ASSETS.

Book value of bonds and stocks	$319,542 5
Deposits in trust companies and banks not on interest	5,039 5
Deposits in trust companies and banks on interest	472,082 8
Premiums in course of collection (less than three months due)	3,220 7

Non-Ledger Assets.

Interest due and accrued on bonds	1,500 0
Total admitted assets	$801,385 6
Total unearned premiums as computed above	$161,371 9
Dividends unpaid to subscribers	195,189 6
Underwriters' deposits	308,500 0
Reserve for contingencies	5,000 0
Total liabilities, except capital	$670,061 5
Surplus over all liabilities	131,324 1
Total	$801,385 6

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$45,241,300	$327,968 0
Written during the year	54,016,725	376,530 3
Totals	$99,258,025	$704,498 4
Expired and terminated	52,810,257	381,754 6
In force at end of the year	$46,447,768	$322,743 80
Net amount in force	$46,447,768	$322,743 80

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$1,732,500 00
Less	20,000 00
Net risks written	1,712,500 00
Gross premiums received	13,000 53
Less	131 88
Net premiums received	12,868 65

INSURANCE COMPANY OF NORTH AMERICA.

Philadelphia, Pa.

(Incorporated April 14, 1794. Commenced business in California May, 1908.)

EUGENE L. ELLISON, President. T. HOWARD WRIGHT, Secretary.

Agent for service in California: J. C. JOHNSTON, San Francisco.

CAPITAL.

Capital stock paid in cash	$4,000,000 00	
Amount of ledger assets December 31st of previous year		$15,906,398 53

INCOME.

	Fire.	Marine and inland.	
Gross premiums	$8,358,897 49	$4,534,696 17	
Deduct gross amount paid for reinsurance, fire, $1,006,101.56; marine and inland, $1,071,920.66; return premiums, fire, $1,085,791.73; marine and inland, $550,882.84	2,091,893 29	1,622,803 50	
Total premiums (other than perpetuals)	$6,267,004 20	$2,911,892 67	$9,178,896 87
Deposit premiums on perpetual risks			12,077 56
Interest on mortgage loans less no accrued interest on mortgages acquired during 1911		$13,327 56	
Interest on bonds and dividends on stocks		585,782 91	
Interest from other sources		20,803 18	
Rents, including company's occupancy of its own buildings		16,254 28	
Total interest and rents			636,167 93
Perpetual permits, transfer fees and earned deposits			2,859 36
Difference in exchange, etc.			1,702 06
Agents' balances previously charged off			403 55
Profit on sale or maturity of ledger assets			111,505 39
Total income			$9,942,982 72
Total			$25,849,381 25

DISBURSEMENTS.

	Fire.	Marine and inland.	
Gross amount paid for losses	$3,924,718 46	$2,457,932 02	
Deduct amount received for salvage, fire, $20.290.74; marine and inland, $384,272.39; reinsurance, fire, $395,669; marine and inland, $482,277.99	415,960 37	866,550 38	
Net amount paid for losses	$3,508,758 09	$1,591,381 64	$5,100,139 73
Expenses of adjustment, settlement of losses			87,147 94
Commissions or brokerage			1,910,992 02
Allowances to local agencies for miscellaneous agency expenses			197,801 88
Salaries and expenses of special and general agents			482,350 45
Salaries, fees and other charges of officers, directors, trustees, agents and employees			193,106 43
Rents, including company's occupancy of its own buildings			50,733 43
Advertising, printing and stationery			80,527 35
Postage, telegrams, telephone and express			58,959 19
Legal expenses			15,926 92
Furniture and fixtures			6,874 28
Maps, including corrections			20,663 85
Underwriters' boards and tariff associations			58,642 73

Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		$38,373 98
Inspections and surveys		37,958 45
Repairs and expenses on real estate		2,174 30
Taxes on real estate		3,952 42
State taxes on premiums		157,719 44
Insurance department licenses and fees		33,183 23
All other licenses, fees and taxes		49,901 54
Other disbursements: Janitor and engine room expenses, $933.26; heat and light, $1,469.19; employees' lunch, $6,788.62; registration of stock, $100; subscriptions, $6,973.04; expenses on mortgage loans, $628.85		16,892 96
Deposit premiums returned		18,362 80
Interest and dividends to stockholders		480,000 00
Agents' balances charged off		2,261 45
Loss on sale or maturity of ledger assets		4,607 50
Total disbursements		$9,109,254 27
Balance		$16,740,126 98

LEDGER ASSETS.

Book value of real estate		$292,559 83
Mortgage loans on real estate		271,925 00
Book value of bonds and stocks		13,367,922 45
Cash in office		1,382 19
Deposits in trust companies and banks not on interest		25,000 00
Deposits in trust companies and banks on interest		1,320,801 96
Agents' balances, representing business written subsequent to October 1st, last		1,423,983 46
Agents' balances, representing business written prior to October 1st, last		11,496 23
Bills receivable, taken for marine and inland risks		18,789 67
Bills receivable taken for fire risks		6,266 19
Total ledger assets		$16,740,126 98

Non-Ledger Assets.

Interest due and accrued on mortgages	$3,006 40	
Interest due and accrued on bonds	74,840 18	
Total		77,846 58
Reinsurance claims on losses paid		63,287 65
Salvage claims		46,100 00
Gross assets		$16,927,361 21

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$11,496 23	
Book value of ledger assets over market value: Bonds and stocks	7,487 62	
Total		18,983 85
Total admitted assets		$16,908,377 36

LIABILITIES.

Losses adjusted and unpaid, due and not due	$151,824 71	
Losses in process of adjustment, or in suspense	1,097,966 07	
Losses resisted	26,994 22	
Total claims for losses	$1,276,785 00	
Deduct reinsurance	88,685 00	
Net amount of unpaid losses		$1,188,100 00

Unearned premiums at 50 per cent on fire risks running one year or less	$1,777,324 61	
Unearned premiums pro rata on fire risks running more than one year	4,130,645 63	
Unearned premiums at 50 per cent on inland navigation risks	418,162 05	
Unearned premiums on marine risks	329,437 75	
Total unearned premiums as computed above		$6,655,570 04
Amount reclaimable by the insured on perpetual fire insurance policies		740,601 58
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		90,000 00
Reinsurance premiums		31,701 33
Contingent fund		202,404 41
Total liabilities, except capital stock		$8,908,377 36
Cash capital	$4,000,000 00	
Surplus over all liabilities	4,000,000 00	
Surplus to policyholders		8,000,000 00
Total		$16,908,377 36

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$1,008,523,013	$11,832,106 73
Written during the year	714,386,471	8,358,897 49
Totals	$1,722,909,484	$20,191,004 22
Expired and terminated	634,280,339	7,634,837 67
In force at end of the year	$1,088,629,145	$12,556,166 55
Deduct amount reinsured	105,003,149	1,149,126 46
Net amount in force	$983,625,996	$11,407,040 09

	Marine and inland risks.	Premiums.
In force December 31, 1910	$72,325,808	$1,595,173 51
Written during the year	750,687,069	4,534,696 17
Totals	$823,012,877	$6,129,869 68
Expired and terminated	742,432,514	4,420,323 51
In force at end of the year	$80,580,363	$1,709,546 17
Deduct amount reinsured	6,981,870	256,139 04
Net amount in force	$73,598,493	$1,453,407 13

Perpetual risks not included above, $31,547,870.79; premiums on same, $816,973.68.

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$261,075,535	$3,554,649 23
More than one and not more than three years to run	487,425,218	4,988,510 30
More than three years to run	235,125,243	2,863,880 56
Net amount in force December 31, 1911	$983,625,996	$11,407,040 09

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance, probably	$150,000 00
Losses incurred during the year: Fire, $3,517,258.09; marine and inland, $1,668,272.23	5,185,530 32
Amount loaned to officers and directors	15,000 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.	Marine and inland.
Net risks written	$16,947,321 00	$14,948,161 00
Net premiums received	296,641 21	165,430 89
Net losses paid	66,892 49	128,142 11
Net losses incurred	67,328 97	124,687 16

THE INSURANCE COMPANY OF THE STATE OF PENNSYLVANIA.

Philadelphia, Pa.

(Incorporated April 18, 1794. Commenced business in California November 5, 1794.)

CLARENCE E. PORTER, President. EDWARD L. GOFF, Secretary.

Agent for service in California: F. H. POWERS, San Francisco.

CAPITAL.

Capital stock paid in cash	$800,000 00	
Amount of ledger assets December 1st of previous year		$3,941,844 44

INCOME.

	Fire.	
Gross premiums	$1,783,299 20	
Deduct gross amount paid for: Reinsurance, fire, $302,281.92; return premiums, fire, $405,736.86	708,018 78	
Total premiums (other than perpetuals)		$1,075,280 42
Deposit premiums on perpetual risks		5,483 87
Interest on mortgage loans	$697 43	
Interest on bonds and dividends on stocks	33,858 81	
Interest from other sources	4,056 01	
Rents, including company's occupancy of its own buildings	8,623 28	
Total interest and rents		47,235 53
From other sources: Earned by perpetual lapsed and canceled		1,230 00
Agents' balances previously charged off		2,056 91
Profit on sale or maturity of ledger assets		535 62
Total income		$1,131,822 35
Total		$5,073,666 79

DISBURSEMENTS.

	Fire.	Perpetual.	
Gross amount paid for losses	$1,040,858 86	$1,385 56	
Deduct amount received for: Salvage, fire, $5,178.75; reinsurance, fire, $234,904.64; discount, fire, $1,139.41	241,222 80		
Net amount paid for losses	$799,636 06	$1,385 56	$801,021 62
Expenses of adjustment, settlement of losses			14,902 59
Commissions or brokerage			229,447 66
Allowances to local agencies for miscellaneous agency expenses			3,084 34
Salaries and expenses of special and general agents			41,344 46
Salaries, fees and other charges of officers, directors, trustees, agents and employees			54,706 32
Rents, including company's occupancy of its own buildings			2,500 00
Advertising, printing and stationery			19,171 12
Postage, telegrams, telephone and express			5,604 06
Legal expenses			3,730 24
Furniture and fixtures			132 73
Maps, including corrections			3,370 03

Underwriters' boards and tariff associations	$5,047 46
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses	6,961 46
Inspections and surveys	4,530 62
Repairs and expenses on real estate	4,506 56
Taxes on real estate	1,799 83
State taxes on premiums	73,795 16
Insurance department licenses and fees	9,713 11
All other licenses, fees and taxes	4,136 34
To stockholders of Spring Garden Insurance Company as dividend for six months from January 1, 1911, to June 30, 1911, under terms of consolidation agreement	24,000 00
Traveling expenses, $137.89; miscellaneous, $777.42	2,149 31
Conflagration indemnity	3,684 00
Deposit premiums returned	20,342 83
Agents' balances charged off	23 95
Loss on sale or maturity of ledger assets	1,227 58
Total disbursements	$1,340,933 38
Balance	$3,732,733 41

LEDGER ASSETS.

Book value of real estate	$256,292 50
Mortgage loans on real estate	56,108 00
Book value of bonds and stocks	2,879,447 75
Cash in office	31,503 45
Deposits in trust companies and banks on interest	113,171 54
Agents' balances, representing business written subsequent to October 1st last	393,814 34
Agents' balances, representing business written prior to October 1st, last	2,395 83
Total ledger assets	$3,732,733 41

Non-Ledger Assets.

Interest due and accrued on mortgages	$698 17	
Interest due and accrued on bonds	29,686 54	
Total		30,384 71
Other non-ledger assets, due from other companies for reinsurance on said losses		1,027 47
Dividends unclaimed by stockholders of merged companies		951 06
Gross assets		$3,765,096 65

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st last	$2,395 83	
Book value of ledger assets over market value, viz:		
Real estate	34,200 00	
Bonds and stocks	17,548 75	
Total		$54,144 58
Total admitted assets		$3,710,952 07

LIABILITIES.

Losses adjusted and unpaid, due and not due	$75,635 41	
Losses in process of adjustment, or in suspense	251,308 58	
Losses resisted	46,550 95	
Total claims for losses	$373,494 94	
Deduct reinsurance	94,347 58	
Net amount of unpaid losses		$279,147 36

Unearned premiums at 50 per cent on fire risks running one year or less	$849,359 54	
Unearned premiums pro rata on fire risks running more than one year	875,361 28	
Total unearned premiums as computed above		$1,724,720 82
Amount reclaimable by the insured on perpetual fire insurance policies		431,362 61
Dividends declared and unpaid to stockholders		951 06
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		35,000 00
Total liabilities, except capital stock		$2,471,181 85
Cash capital	$800,000 00	
Surplus over all liabilities	439,770 22	
Surplus to policyholders		$1,239,770 22
Total		$3,710,952 07

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$325,672,432 42	$3,987,121 76
Written during the year	135,383,125 58	$1,783,299 20
Totals	$461,055,558 00	$5,770,420 96
Expired and terminated	132,030,043 61	1,777,727 89
In force at end of the year	$329,025,514 39	$3,992,693 07
Deduct amount reinsured	51,839,360 04	647,198 14
Net amount in force	$277,186,154 35	$3,345,494 93

Perpetual risks not included above, $19,089,339.40; premiums on same, $474,342.64.

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$126,423,515 95	$1,698,719 08
More than one and not more than three years to run	113,124,268 02	1,211,904 31
More than one and not more than three years to run	113,124,268 02	1,211,904 31
More than three years to run	37,638,370 38	434,871 54
Net amount in force December 31, 1911	$277,186,154 35	$3,345,494 93

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$40,000 00
Losses incurred during the year: Fire	646,147 44

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$721,475 82
Less	326,422 86
Net risks written	395,052 96
Gross premiums received	13,031 20
Less	5,012 67
Net premiums received	8,018 53
Net losses paid	7,040 39
Net losses incurred	3,361 35

INTERNATIONAL FIRE INSURANCE COMPANY.

Dallas, Texas.

(Incorporated June 9, 1909. Commenced business in California January 26, 1910.)

W. H. EDDLEMAN, President. I. JALOSISCK, Secretary.

Agent for service in California: J. H. ANKELE, San Francisco, Cal.

CAPITAL.

Capital stock paid in cash	$231,900 00	
Amount of ledger assets, December 31st of previous year		$378,299 66

INCOME.

	Fire.	
Gross premiums	$225,392 46	
Deduct gross amount paid for reinsurance, fire, $38,771.15; return premiums, fire, $68,650 25	107,421 40	
Total premiums (other than perpetuals)		$117,971 06
Interest on mortgage loans	$9,702 76	
Interest on collateral loans	261 37	
Interest on bonds and dividends on stocks	12,546 42	
Total interest and rents		22,510 55
Increase in book value of ledger assets		75 00
Total income		$140,556 61
Total		$518,856 27

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$128,035 97	
Deduct amount received for reinsurance, fire	15,645 82	
Net amount paid for losses		$112,390 15
Expenses of adjustment, settlement of losses		2,109 45
Commissions or brokerage		31,133 04
Salaries and expenses of special and general agents		2,942 46
Salaries, fees and other charges of officers, directors, trustees, agents and employees		10,073 30
Rents, including company's occupancy of its own buildings		1,100 00
Advertising, printing and stationery		1,832 97
Postage, telegrams, telephone and express		1,832 87
Legal expenses		2,685 97
Furniture and fixtures		331 10
Maps, including corrections		372 95
Underwriters' boards and tariff associations		865 03
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		535 82
Inspections and surveys		225 46
State taxes on premiums		1,746 95
Insurance department licenses and fees		3,351 87
Interest paid on overdraft in Western National Bank of Fort Worth	$773 57	
General expense, office expense	415 83	
		1,189 40
Profit and loss account by mutual agreement to break contract in Arkansas and Tennessee	$1,000 00	
Fees and licenses	1,924 27	
		2,924 27
Agents' balances charged off		13,747 71
Loss on sale or maturity of ledger assets		3,300 00
Total disbursements		$194,870 77
Balance		$323,985 50

LEDGER ASSETS.

Mortgage loans on real estate		$175,216 01
Book value of bonds and stocks		102,852 00
Cash in office		1,782 79
Deposits in trust companies and banks not on interest		35,154 04
Agents' balances, representing business written subsequent to October 1st, last		8,635 35
Agents' balances, representing business written prior to October 1st, last		345 31
Total ledger assets		$323,985 50

Non-Ledger Assets.

Interest due and accrued on mortgages	$6,073 64	
Interest due and accrued on bonds	1,053 04	
Total		7,126 68
Gross assets		$331,112 18

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last		345 31
Total admitted assets		$330,766 87

LIABILITIES.

Losses in process of adjustment, or in suspense	$20,641 38	
Losses resisted	13,180 00	
Total claims for losses	$33,821 38	
Deduct reinsurance	7,657 19	
Net amount of unpaid losses		$26,164 19
Unearned premiums at 50 per cent on fire risks running one year or less	$42,811 48	
Unearned premiums pro rata on fire risks running more than one year	22,655 48	
Total unearned premiums as computed above		65,466 96
Reinsurance premiums		5,121 37
Total		$96,752 52
Cash capital	$231,900 00	
Surplus over all liabilities	2,114 35	
Surplus to policyholders		234,014 35
Total		$330,766 87

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1911	$8,314,637	$145.767 43
Written during the year	7,741,502	225.392 46
Totals	$16,056.139	$371.159 89
Expired and terminated	5,085,257	207,528 94
In force at end of the year	$10,970,882	$163,630 95
Deduct amount reinsured	3,652,288	43,892 52
Net amount in force	$7,318,594	$119,738 30

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$5,446,875	$87.135 06
More than one and not more than three years to run	1,859.819	32.324 44
More than three years to run	11,900	278 43
Net amount in force December 31, 1911	$7,318,594	$119.738 43

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$20,625 00
Losses incurred during the year: Fire	117,405 00
Amount loaned to officers and directors	5,000 00
Amount loaned to stockholders not officers	545 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$1,400,928 00
Less	556,983 00
Net risks	843,945 00
Gross premiums received	27,785 61
Less	10,109 69
Net premiums received	17,675 92
Net losses paid	10,190 29
Net losses incurred	12,040 29

JEFFERSON FIRE INSURANCE COMPANY.

Philadelphia, Pa.

(Incorporated April, 1855. Commenced business in California January 16, 1907.)

ALEXANDER N. STEWART, President. SAMUEL W. SCOTT, Secretary.

Agent for service in California: ASSOCIATED UNDERWRITERS, Inc., San Francisco.

CAPITAL.

Capital stock paid in cash	$250,000 00	
Amount of ledger assets December 31st of previous year		$1,081,465 08

INCOME.

	Fire.	Marine and inland.	
Gross premiums	$1,027,803 32	$4,497 97	
Deduct gross amount paid for reinsurance, fire, $84,462.16; marine and inland, $1,181.56; return premiums, fire, $195,892.80; marine and inland, $830.57	270,354 96	2,012 13	
Total premiums (other than perpetuals)	$747,448 36	$2,485 84	$749,934 20
Deposit premiums on perpetual risks			775 82
Interest on mortgage loans		$250 00	
Interest on bonds and dividends on stocks		36,902 74	
Interest on deposits in trust companies and banks		1,140 19	
Interest on collections of agents' balances held by receiver of funds of former general agents, Detroit, Mich.		28 52	
Rents, including company's occupancy of its own buildings		7,070 14	
Total interest and rents			45,391 59
From other sources: Earned premiums on perpetual policies canceled			93 47
Principal of ground rent real estate, 520 Walnut Street, Philadelphia, Pa.			50,000 00
Profit on sale or maturity of ledger assets			10,858 14
Total income			$857,053 22
Total			$1,938,518 30

DISBURSEMENTS.

	Fire.	Marine and inland.	
Gross amount paid for losses	$510,759 09	$6,213 24	
Deduct amount received for salvage, fire, $5,524.66; marine and inland, $42.32; reinsurance, fire, $81,167.21; marine and inland, $468.60	86,691 87	510 92	
Net amount paid for losses	$424,067 22	$5,702 32	$429,769 54
Expenses of adjustment, settlement of losses			9.780 51
Commissions or brokerage			143.525 92
Allowances to local agencies for miscellaneous agency expenses			5.474 62
Salaries and expenses of special and general agents			38,289 38
Salaries, fees and other charges of officers, directors, trustees, agents and employees			33.263 69
Rents, including company's occupancy of its own buildings			3.600 00
Advertising, printing and stationery			6.837 40
Postage, telegrams, telephone and express			4.759 95
Legal expenses			2.428 17
Furniture and fixtures			416 65
Maps, including corrections			6.756 32
Underwriters' boards and tariff associations			7,091 10
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses			2,323 46
Inspections and surveys			1,232 15
Repairs and expenses on real estate			1,479 52
Taxes on real estate			1.145 03
State taxes on premiums			15.299 14
Insurance department licenses and fees			7.332 40
Interest on ground rent at 4 per cent per annum			1,333 33
Return commission on canceled perpetual policies of insurance on company's building			61 25
Interest and dividends to stockholders			1,898 78
Decrease in liabilities during the year on account of reinsurance treaties			57.133 68
Agents' balances charged off			2.107 24
Loss on sale or maturity of ledger assets			239 30
Total disbursements			$783.578 53
Balance			$1,154.939 77

LEDGER ASSETS.

Book value of real estate	$76,929 80
Mortgage loans on real estate	5.000 00
Book value of bonds and stocks	845,939 22
Cash in office	6,121 81
Deposits in trust companies and banks not on interest	3.764 52
Deposits in trust companies and banks on interest	88.051 44
Agents' balances, representing business written subsequent to October 1st, last	125,721 46
Agents' balances, representing business written prior to October 1st, last	2.924 02
Reclaimable on perpetual insurance on company's building	487 50
Total ledger assets	$1.154.939 77

Non-Ledger Assets.

Interest due and accrued on mortgages	$62 50	
Interest due and accrued on bonds	11,581 68	
Rents due and accrued on company's property	157 75	
Total		11,801 93
Other non-ledger assets: Estimated amount hereafter payable for state taxes by company's former general agent based upon the first six months' business of this statement		4.763 29
Gross assets		$1,171.504 99

Gross assets		$1,171,504 99

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st last	$2,924 02	
Book value of ledger assets	9,972 97	
Total		12,896 99
Total admitted assets		$1,158,608 00

LIABILITIES.

Losses adjusted and unpaid, due and not due	$24,407 53	
Losses in process of adjustment, or in suspense	85,128 14	
Total claims for losses	$109,535 67	
Deduct reinsurance	23,623 56	
Net amount of unpaid losses		$85,912 11
Unearned premiums at 50 per cent on fire risks running one year or less	$255,570 29	
Unearned premiums pro rata on fire risks running more than one year	263,666 31	
Unearned premiums at 50 per cent on inland navigation risks	1,364 32	
Total unearned premiums as computed above		520,600 92
Amount reclaimable by the insured on perpetual fire insurance policies		63,984 51
Interest due or accrued, remaining unpaid on ground rent		666 66
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		17,263 29
Commissions, brokerage and other charges due or to become due to agents and brokers		1,242 56
Principal of ground rent on real estate, 520 Walnut Street, Philadelphia		50,000 00
Total		$739,670 05
Cash capital	$250,000 00	
Surplus over all liabilities	168,937 95	
Surplus to policyholders		418,937 95
Total		$1,158,608 00

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$109,861,381	$1,372,402 22
Written during the year	89,697,339	1,027,803 32
Excess of original premiums over amount received for reinsurance	----------	1,986 66
Totals	$199,558,720	$2,402,192 20
Expired and terminated	96,426,780	1,144,957 28
In force at end of the year	$103,131,940	$1,257,234 92
Deduct amount reinsured	16,822,846	244,454 46
Net amount in force	$86,309,094	$1,012,780 46

	Marine and inland risks.	Premiums.
In force December 31, 1910	$194,304	$7,770 41
Written during the year	139,499	4,497 97
Totals	$333,803	$12,268 38
Expired and terminated	211,654	8,235 43
In force at end of the year	$122,149	$4,032 95
Deduct amount reinsured	49,550	1,304 31
Net amount in force	$72,599	$2,728 64

Perpetual risks not included above, $2,769,769; premiums on same, $70,615.32.

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$45,060,812	$511,140 58
More than one and not more than three years to run	35,538,363	436,009 09
More than three years to run	5,709,919	65,630 79
Net amount in force December 31, 1911	$86,309,094	$1,012,780 46

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$32,500 00
Losses incurred during the year: Fire, $420,447.62; marine and inland, $5,702.32	426,149 94

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$6,311,623 00
Less	2,334,830 00
Net risks written	3,976,793 00
Gross premiums received	118,284 22
Less	39,739 14
Net premiums received	78,545 08
Net losses paid	15,901 97
Net losses incurred	16,582 04

UNITED STATES BRANCH OF THE LAW UNION AND ROCK INSURANCE COMPANY, LTD.

London, England.

(Incorporated 1806. Commenced business in California July 13, 1898.)

A. F. Shaw, United States Manager.

Agent for service in California: Harry H. Smith, 310 Sansome st., San Francisco.

CAPITAL.

Capital stock paid in cash	$236,000 00	
Amount of ledger assets December 31st of previous year		$782,487 02

INCOME.

	Fire.	
Gross premiums	$715,429 73	
Deduct gross amount paid for reinsurance, fire, $99,001.01; return premiums, fire, $149,185.61	248,186 62	
Total premiums (other than perpetuals)		$467,243 11
Interest on bonds and dividends on stocks	$26,568 37	
Interest from other sources	481 91	
Total interest and rents		27,050 28
Remittance from home office		175,366 88
Total income		$669,660 27
Total		$1,452,147 29

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$283,275 78	
Deduct amount received for salvage, fire, $456.49; reinsurance, fire, $43,835.83	44,292 32	
Net amount paid for losses		$238,983 46
Expenses of adjustment, settlement of losses		6,885 56

Commissions or brokerage	$103,546 46
Allowances to local agencies for miscellaneous agency expenses	31 15
Salaries and expenses of special and general agents	14,573 84
Salaries, fees and other charges of officers, directors, trustees, agents and employees	37,820 16
Rents, including company's occupancy of its own buildings	5,742 11
Advertising, printing and stationery	6,424 33
Postage, telegrams, telephone and express	4,668 37
Legal expenses	46 50
Furniture and fixtures	821 93
Maps, including corrections	1,745 23
Underwriters' boards and tariff associations	4,490 22
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses	3,178 58
Inspections and surveys	650 85
State taxes on premiums	7,272 18
Insurance department licenses and fees	3,865 18
Other disbursements: Federal corporation tax, $204.01; examination fee New York Insurance Department, $396.49; remittance to home office, $80,319.14; miscellaneous expenses, $1,571.62	82,491 26
Agents' balances charged off	502 35
Total disbursements	$523,739 72
Balance	$928,407 57

LEDGER ASSETS.

Book value of bonds and stocks	$817,265 75
Cash in office	83 62
Deposit in trust companies and banks on interest	17,224 72
Agents' balances, representing business written subsequent to October 1st, last	92,121 19
Agents' balances, representing business written prior to October 1st, last	1,712 29
Total ledger assets	$928,407 57

Non-Ledger Assets.

Interest due and accrued on bonds		6,152 87
Gross assets		$934,560 44

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$1,712 29	
Book value of ledger assets over market value: Bonds, $58,672; stocks, $27,988.75	86,660 75	
Total		88,373 04
Total admitted assets		$846,187 40

LIABILITIES.

Losses adjusted and unpaid, due and not due	$2,736 52	
Losses in process of adjustment, or in suspense	49,719 91	
Losses resisted	10,345 21	
Total claims for losses	$62,801 64	
Deduct reinsurance	12,256 14	
Net amount of unpaid losses		$50,545 50
Unearned premiums at 50 per cent on fire risks running one year or less	$149,312 37	
Unearned premiums pro rata on fire risks running more than one year	274,567 61	
Total unearned premiums as computed above		423,879 98

Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		$9,012 75
Reinsurance premiums		1,779 24
Total liabilities, except capital stock		$485,217 47
Cash capital	$236,000 00	
Surplus over all liabilities	124,969 93	
Surplus to policyholders		360,969 93
Total		$846,187 40

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$104,046,248	$926,730 63
Written during the year	73,292,908	715,429 73
Excess of original premiums over amount received for reinsurance		268 68
Totals	$177,339,156	$1,642,429 04
Expired and terminated	69,556,663	664,200 53
In force at end of the year	$107,782,493	$978,228 51
Deduct amount reinsured	18,861,781	158,765 54
Net amount in force	$88,920,712	$819,462 97

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$27,734,370	$298,624 76
More than one and not more than three years to run	52,101,712	415,814 42
More than three years to run	9,084,630	105,023 79
Net amount in force December 31, 1911	$88,920,712	$819,462 97

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$25,000 00
Losses incurred during the year: Fire	246,495 88

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$7,481,831 00
Less	2,316,726 00
Net risks written	5,165,105 00
Gross premiums received	118,411 36
Less	31,330 47
Net premiums received	87,080 89
Net losses paid	29,443 22
Net losses incurred	28,626 22
Home office statement shows—	
Capital (paid up)	$2,241,800 00
Assets	46,670,342 98
Liabilities	42,319,349 31

UNITED STATES BRANCH OF THE LIVERPOOL AND LONDON AND GLOBE INSURANCE COMPANY, LTD.

Liverpool, England.

(Incorporated 1836. Commenced business in California, 1852.)

Agent for service in California: JOHN W. GUNN, San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year	$13,871,178 32

INCOME.

	Fire.	Marine and inland.	
Gross premiums	$13,699,237 20	$409,186 30	
Deduct gross amount paid for reinsurance, fire, $2,248,522.95; marine and inland, $56,024.37; return premiums, fire, $3,370,145.82; marine and inland, $40,412.91	5,618,668 77	96,437 28	
Total premiums (other than perpetuals)	$8,080,568 43	$312,739 02	$8,393,317 45
Deposit premiums on perpetual risks			1,206 34
Interest on mortgage loans		$158,652 19	
Interest on collateral loans		6 00	
Interest on bonds and dividends on stocks		224,027 88	
Interest from other sources		13,904 88	
Rents, including company's occupancy of its own buildings		127,200 86	
Total interest and rents			523,791 81
Premiums on life policies in force			373 31
Profit on sale or maturity of ledger assets			10,614 82
Increase in book value of ledger assets			777 51
Total income			$8,930 081 24
Total			$22,801,259 56

DISBURSEMENTS.

	Fire.	Marine and inland.	
Gross amount paid for losses	$6,725,622 04	$86,374 42	
Deduct amount received for salvage, fire, $88,290.22; marine and inland, $268.10; reinsurance, fire, $2,261,056.56; marine and inland, $26,764.96	2,349,346 78	27,033 06	
Net amount paid for losses	$4,376,275 26	$59,341 36	$4,435,616 62
Expenses of adjustment, settlement of losses			120,487 00
Commissions or brokerage			1,678,196 47
Salaries and expenses of special and general agents			189,920 69
Salaries, fees and other charges of officers, directors, trustees, agents and employees			338,649 29
Rents, including company's occupancy of its own buildings			56,700 38
Advertising, printing and stationery			90,661 70
Postage, telegrams, telephone and express			36,187 75
Legal expenses			3,579 33
Furniture and fixtures			12,902 31
Maps, including corrections			12,959 95
Underwriters' boards and tariff associations			93,777 21
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses			23,410 21

Inspections and surveys	$33,950 54
Repairs and expenses on real estate	46,208 14
Taxes on real estate	26,510 41
State taxes on premiums	126,427 68
Insurance department licenses and fees	21,569 28
All other licenses, fees and taxes	90,672 44
Office expenses	35,655 27
Traveling	8,714 86
Life expenditure	6 19
Remittance to home office	1,338,013 23
Deposit premiums returned	10,017 91
Decrease in book value of ledger assets	9,288 95
Total disbursements	$8,840,083 81
Balance	$13,961,175 75

LEDGER ASSETS.

Book value of real estate	$1,452,558 30
Mortgage loans on real estate	3,435,614 00
Loans secured by pledge of bonds, stocks or other collaterals	100 00
Book value of bonds and stocks	5,584,984 02
Cash in office	1,173 32
Deposits in trust companies and banks not on interest	169,594 97
Deposits in trust companies and banks on interest	1,367,081 74
Agents' balances, representing business written subsequent to October 1st, last	1,891,231 71
Agents' balances, representing business written prior to October 1st, last	58,837 69
Total ledger assets	$13,961,175 75

Non-Ledger Assets.

Interest due and accrued on mortgages	$42,931 74	
Interest due and accrued on bonds	53,090 00	
Interest due and accrued on other assets	7,209 58	
Rents due and accrued on company's property	10,000 00	
Total		113,231 32
Market value of real estate over book value		121,957 82
Gross assets		$14,196,364 89

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$58,837 69	
Farm notes	1,241 76	
Mortgages over amount allowed by law of New York securities	98,336 00	
Book value of ledger assets over market value: Bonds, $173,979.69; stocks, $70,264.33	244,244 02	
Total		402,659 47
Total admitted assets		$13,793,705 42

LIABILITIES.

Losses adjusted and unpaid, due and not due	$54,186 77	
Losses in process of adjustment, or in suspense	1,347,431 28	
Losses resisted	70,699 00	
Total claims for losses	$1,472,317 05	
Deduct reinsurance	654,975 67	
Net amount of unpaid losses		$817,341 38

Unearned premiums at 50 per cent on fire risks running one year or less	$2,533,049 92	
1912 business, 100 per cent	106,618 00	
Unearned premiums pro rata on fire risks running more than one year	4,862,373 34	
Unearned premiums at 50 per cent on inland navigation risks	201,058 28	
Total unearned premiums as computed above		$7,703,099 54
Amount reclaimable by the insured on perpetual fire insurance policies		189,899 74
Net premium reserve and all other liabilities, except capital, under the life insurance or any other special department		9,406 16
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		9,854 94
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		180,652 68
Commissions, brokerage and other charges due or to become due to agents and brokers		64,007 91
Return premiums, $69,527.48; reinsurance premiums, $238,742.14		308,269 62
Reserve for unknown liabilities		20,000 00
Total liabilities, except capital stock		$9,302,531 97
Total		$13,793,705 42

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$1,803,330,877	$18,698,634 47
Written during the year	1,382,855,524	13,699,237 20
Totals	$3,186,186,401	$32,397,871 67
Expired and terminated	1,263,099,379	12,780,217 64
In force at end of the year	$1,923,087,022	$19,617,654 03
Deduct amount reinsured	567,103,738	5,181,883 67
Net amount in force	$1,355,983,284	$14,435,770 36

	Marine and inland risks.	Premiums.
Written during the year	$13,669,324	$409,186 30
Expired and terminated	4,821,516	171,757 02
In force at end of the year	$8,847,808	$237,429 28
Deduct amount reinsured	1,972,691	36,371 00
Net amount in force	$6,875,117	$201,058 28

Perpetual risks not included above, $7,113,312; premiums on same, $199,894.46.

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$466,947,745	$5,172,717 83
More than one and not more than three years to run	682,082,262	6,645,972 43
More than three years to run	206,953,277	2,617,080 10
Net amount in force December 31, 1911	$1,355,983,284	$14,435,770 36

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$850,000 00
Losses incurred during the year: Fire, $4,375,468.98; marine and inland, $79,666.05	4,455,135 03

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$53,349,088 00
Less	5,221,635 00
Net risks written	48,127,453 00
Gross premiums received	814,950 25
Less	152,575 30
Net premiums received	662,374 95
Net losses paid	154,745 05
Net losses incurred	157,939 45

UNITED STATES BRANCH OF THE LONDON ASSURANCE CORPORATION.

New York, N. Y.

(Incorporated 1720. Commenced business in California August 28, 1872.)

CHARLES L. CASE, United States Manager.

Agent for service in California: EDWIN PARRISH, San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year	$3,730,123 5

INCOME.

	Fire.	Marine and inland.	
Gross premiums	$2,784,641 52	$1,120,177 77	
Deduct gross amount paid for reinsurance, fire, $330,378.93; marine and inland, $585,233.10; return premiums, fire, $410,793.98; marine and inland, $56,794.70	741,172 91	642,027 80	
Total premiums (other than perpetuals)	$2,043,468 61	$478,089 97	$2,521,558 5
Interest on bonds and dividends on stocks		123,486 93	
Interest from other sources		5,985 91	
Total interest and rents			129,472 84
Recovered from steamship "Crown Prince"			26,334 48
Received from home office			33,996 04
Agents' balances previously charged off			1 29
Total income			$2,711,363 23
Total			$6,441,486 80

DISBURSEMENTS.

	Fire.	Marine and inland.	
Gross amount paid for losses	$1,166,832 51	$617,810 63	
Deduct amount received for salvage, fire, $4,535.33; marine and inland, $62,229.39; reinsurance, fire, $142,982.29; marine and inland, $350,743.48; discount, fire, $128.60	147,646 22	412,972 87	
Net amount paid for losses	$1,019,186 29	$204,837 76	$1,224,024 05
Expenses of adjustment, settlement of losses			28,304 95
Commissions or brokerage			531,136 85
Salaries and expenses of special and general agents			66,059 92
Salaries, fees and other charges of officers, directors, trustees, agents and employees			127,402 66
Rents, including company's occupancy of its own buildings			22,342 60
Advertising, printing and stationery			24,998 32
Postage, telegrams, telephone and express			19,967 57
Legal expenses			485 44
Furniture and fixtures			1,157 49
Maps, including corrections			5,845 84
Underwriters' boards and tariff associations			25,931 20
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses			19,550 70
Inspections and surveys			10,563 44
State taxes on premiums			45,375 61
Insurance department licenses and fees			12,428 15
All other licenses, fees and taxes			11,276 22

iscellaneous expenses		$13,472 07
emitted to home office		410,191 07
gents' balances charged off		1,727 62
oss on sale or maturity of ledger assets		4,221 88
Total disbursements		$2,606,463 65
Balance		$3,835,023 15

LEDGER ASSETS.

ook value of bonds and stocks		$3,035,421 96
ash in office		1,553 88
eposits in trust companies and banks not on interest		23,514 49
eposits in trust companies and banks on interest		298,167 19
gents' balances, representing business written subsequent to October 1st, last		466,535 32
gents' balances, representing business written prior to October 1st, last		9,830 31
Total ledger assets		$3,835,023 15

Non-Ledger Assets.

ue from other companies for reinsurance on losses already paid		12,395 81
Gross assets		$3,847,418 96

Deduct Assets Not Admitted.

gents' balances, representing business written prior to October 1st, last	$9,830 31	
ook value of ledger assets over market value	90,256 96	
Total		100,087 27
Total admitted assets		$3,747,331 69

LIABILITIES.

osses adjusted and unpaid, due and not due	$25,676 46	
osses in process of adjustment, or in suspense	407,286 00	
osses resisted	14,182 00	
Total claims for losses	$447,144 46	
educt reinsurance	118,162 00	
Net amount of unpaid losses		$328,982 46
nearned premiums at 50 per cent on fire risks running one year or less	$643,822 34	
nearned premiums pro rata on fire risks running more than one year	1,264,466 08	
nearned premiums at 50 per cent on inland navigation risks	40,806 17	
nearned premiums on marine risks	109,830 26	
Total unearned premiums as computed above		2,058,924 85
alaries, rents, expenses, bills, accounts, fees, etc., due or accrued		3,172 37
stimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		61,594 37
ommissions, brokerage and other charges due or to become due to agents and brokers		18,370 54
einsurance premiums		49,878 83
Total liabilities, except capital stock		$2,520,923 42
urplus to policyholders		1,226,408 27
Total		$3,747,331 69

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force on the 31st day of December under this heading in last year's statement	$357,023,357	$3,930,480 68
Written or renewed during the year	244,487,060	2,784,641 52
Totals	$601,510,417	$6,715,122 20
Deduct those expired and marked off as terminated	215,918,056	2,533,082 55
In force at the end of the year	$385,592,361	$4,182,039 65
Deduct amount reinsured	41,415,824	487,965 66
Net amount in force	$344,176,537	$3,694,073 99

	Marine and inland risks.	Premiums.
In force on the 31st day of December under this heading in last year's statement	$52,953,182	$414,851 79
Written or renewed during the year	298,780,871	1,120,117 77
Totals	$351,734,053	1,534,969 56
Deduct those expired and marked off as terminated	298,581,308	1,228,612 87
In force at the end of the year	$53,152,745	$306,356 69
Deduct amount reinsured	9,450,737	45,070 10
Net amount in force	$43,702,008	$261,286 59

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.	Marine and inland.
Net risks written	$17,598,192 00	$128,132 03
Net premiums received	314,022 67	43,243 67
Net losses paid	79,942 32	16,377 88
Net losses incurred	78,971 32	18,877 88

Home office statement shows:	
Capital (paid up)	$448,275 00
Assets	4,729,002 92
Liabilities	3,184,855 12

UNITED STATES BRANCH OF THE LONDON AND LANCASHIRE FIRE INSURANCE COMPANY.

Liverpool, England.

(Incorporated Dec. 10, 1861. Commenced business in California Nov. 6, 1879.)

ARCHIBALD G. MCILWAINE, JR., Manager.

Agent for service in California: JAMES WYPER, San Francisco.

CAPITAL.

Deposit capital	$200,000 00	
Amount of ledger assets December 31st of previous year		$4,118,500 32

INCOME.

	Fire.	Marine and inland.	
Gross premiums	$4,052,313 77	$88,452 24	
Deduct gross amount paid for reinsurance, fire, $888,306.04; marine and inland, $11,846.50; return premiums, fire, $651,406.50; marine and inland, $13,600.73	1,539,712 54	25,447 23	
Total premiums (other than perpetuals)	$2,512,601 23	$63,005 01	$2,575,606 24

nterest on bonds and dividends on stocks	$115,440 96	
nterest from other sources	11,052 72	
ents, including company's occupancy of its own buildings	25,672 56	
Total interest and rents		$152,166 24
rom other sources: Received from home office		134,024 26
Total income		$2,861,796 74
Total		$6,980,297 06

DISBURSEMENTS.

	Fire.	Marine and inland.	
ross amount paid for losses	$1,557,434 72	$12,661 97	
educt amount received for salvage, fire, $19,926.61; marine and inland, $50.00; reinsurance, fire, $377,226.67; marine and inland, $133.01; discount, fire, $679.23	397,828 56	183 01	
Net amount paid for losses	$1,159,606 21	$12,478 94	$1,172,085 15
xpense of adjustment, settlement of losses			39,572 28
ommissions or brokerage			444,275 16
llowances to local agencies for miscellaneous agency expenses			16,235 84
alaries and expenses of special and general agents			87,543 56
alaries, fees and other charges of officers, directors, trustees, agents and employees			145,420 65
ents, including company's occupancy of its own buildings			30,234 90
dvertising, printing and stationery			38,099 96
ostage, telegrams, telephone and express			18,922 40
egal expenses			1,604 89
urniture and fixtures			2,359 36
aps, including corrections			82,269 90
nderwriters' boards and tariff associations			39,819 40
ire department, fire patrol and salvage corps assessments, fees, taxes and expenses			30,500 64
nspections and surveys			13,054 28
epairs and expenses on real estate			10,070 71
axes on real estate			5,856 43
tate taxes on premiums			45,690 75
nsurance department licenses and fees			13,808 78
ll other licenses, fees and taxes			13,703 93
ther disbursements: Premiums on bonds, $290.00; traveling, $188.45; exchange, $1,225.11; subscriptions, $973.86; miscellaneous expenses, $8,069.60			10,747 02
emitted to home office			324,548 71
oss on sale or maturity of ledger assets			2,000 00
Total disbursements			$2,514,424 70
Balance			$4,465,872 36

LEDGER ASSETS.

ook value of real estate	$300,000 00
ook value of bonds and stocks	2,941,284 84
ash in office	10,361 46
eposits in trust companies and banks not on interest	5,104 75
eposits in trust companies and banks on interest	554,981 39
gents' balances, representing business written subsequent to October 1st, last	528,375 56
gents' balances, representing business written prior to October 1st, last	14,889 65
ills receivable taken for fire risks	782 28
ash in hands of United States Trustees	105,433 92
alances due from other companies	4,658 51
Total ledger assets	$4,465,872 36

Total ledger assets		$4,465,872 36

Non-Ledger Assets.

Interest due and accrued on bonds	$43,752 90	
Rents due and accrued on company's property	399 33	
Total		44,152 23
Market value of real estate over book value		50,000 00
Reinsurance due on paid losses		1,745 39
Commissions on unpaid reinsurance		750 28
Gross assets		$4,562,520 26

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$14,889 65	
Bills receivable, past due, taken for marine, inland and fire risks	289 53	
Overdue and accrued interest on bonds in default: Buffalo and Susquehanna Railroad Co. bonds	2,000 00	
Book value of ledger assets over market value: Bonds and stocks	120,719 84	
Balances due from other companies	8 26	
Special deposits to secure liabilities in Virginia and New Mexico	59,800 00	
Total		197,707 28
Total admitted assets		$4,364,812 98

LIABILITIES.

Losses adjusted and unpaid, due and not due	$19,698 00	
Losses in process of adjustment, or in suspense	155,010 58	
Losses resisted	20,580 00	
Total claims for losses	$195,288 58	
Deduct reinsurance	51,115 42	
Net amount of unpaid losses		$144,173 16
Unearned premiums at 50 per cent on fire risks running one year or less	$766,520 56	
Unearned premiums pro rata on fire risks running more than one year	1,775,581 49	
Unearned premiums at 50 per cent on inland navigation risks	28,872 62	
Total unearned premiums as computed above		2,570,974 67
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		2,989 08
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		57,700 60
Commissions, brokerage and other charges due or to become due to agents and brokers		10,000 00
Return premiums, $4,418.53; reinsurance premiums, $4,363.16		8,781 69
Total		$2,794,619 20
Less liabilities secured by special deposits in Virginia and New Mexico: Losses, $515.00; unearned premiums, $29,906.70		30,421 70
Total liabilities, except capital stock		$2,764,197 50
Surplus to policyholders		1,600,615 48
Total		$4,364,812 98

RISKS AND PREMIUMS.

	Fire risks.	Premiums.	
In force December 31, 1910	$558,071,891	$5,443,861	22
Written during the year	436,081,426	4,052,313	77
Excess of original premiums over amount received for reinsurance		5,289	20
Totals	$994,153,317	$9,501,464	19
Expired and terminated	399,914,826	3,673,585	65
In force at end of the year	$594,238,491	$5,827,875	54
Deduct amount reinsured	97,822 42	1,002,175	68
Net amount in force	$496,415,649	$4,825,699	86

	Marine and inland risks.	Premiums.	
Written during the year	$4,341,354	$88,452	24
Expired and terminated	880,993	16,662	14
In force at end of the year	$3,460,361	$69,790	10
Deduct amount reinsured	1,227,578	12,044	86
Net amount in force	$2,232,783	$57,745	24

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.	
In force, having from date of policy not more than one year to run	$151,832,451	$1,533,041	11
More than one and not more than three years to run	250,691,538	2,178,128	78
More than three years to run	93,891,660	1,114,529	97
Net amount in force December 31, 1911	$496,415,649	$4,825,699	86

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$75,000	00
Losses incurred during the year: Fire, $1,102,265.31; marine and inland, $13,365.10	1,115,630	41

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.	
Gross risks written	$25,459,463	00
Less	9,943,388	00
Net risks written	15,516,075	00
Gross premiums received	347,540	44
Less	104,975	37
Net premiums received	242,565	07
Net losses paid	81,482	06
Net losses incurred	70,382	06

LOS ANGELES FIRE INSURANCE COMPANY.

Los Angeles, Cal.

(Incorporated April 11, 1910. Commenced business in California August 15, 1910.)

W. F. Holt, President. Charles Donlon, Secretary.

CAPITAL.

Capital stock paid in cash	$209,000	00		
Amount of ledger assets December 31st of previous year			$233,987	88
Increase of paid-up capital during year			9,000	00
Surplus paid in by stockholders			63,568	00
Extended at			$306,555	88

INCOME.

	Fire.	
Gross premiums	$56,629 86	
Deduct gross amount paid for reinsurance, fire, $18.149; return premiums, fire, $12,355.93	30.504 93	
Total premiums (other than perpetuals)		$26.124 93
Interest on bonds and dividends on stocks		9.255 99
Commission on placed insurance		468 13
Total income		$35.849 05
Total		$342,404 93

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$21.020 08	
Deduct amount received for salvage, fire, $3.43; reinsurance, fire, $8,423.87	8,427 30	
Net amount paid for losses		$12.592 78
Expenses of adjustment, settlement of losses		310 93
Commissions or brokerage		2.780 37
Salaries and expenses of special and general agents		6,556 10
Salaries, fees and other charges of officers, directors, trustees, agents and employees		9.115 31
Rents, including company's occupancy of its own buildings		1.932 00
Advertising, printing and stationery		3.111 97
Postage, telegrams, telephone and express		1,866 61
Legal expenses		50 00
Furniture and fixtures		750 71
Maps, including corrections		1.501 00
Underwriters' boards and tariff associations		59 65
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		27 76
State taxes on premiums		81 68
Insurance department licenses and fees		531 30
All other licenses, fees and taxes		189 22
Interest on time bank certificates exchanged for bonds		1.589 63
Commissions on stock sales		3.461 00
Premium placed insurance received 1910		10 50
Agents' balances charged off		89 40
Decrease in book value of ledger assets		424 54
Total disbursements		$47,032 46
Balance		$295,372 47

LEDGER ASSETS.

Book value of bonds and stocks	$262.913 37
Cash in office	415 42
Deposits in trust companies and banks not on interest	24.337 69
Agents' balances, representing business written subsequent to October 1st, last	7.637 37
Agents' balances, representing business written prior to October 1st, last	68 62
Total ledger assets	$295,372 47

Non-Ledger Assets.

Interest due and accrued on bonds	4.719 90
Other non-ledger assets: Due from other companies for reinsurance losses paid	4.500 00
Commissions due company on unpaid reinsurance	286 50
Gross assets	$304.878 87

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$68 62
Total admitted assets	$304,810 25

LIABILITIES.

Losses adjusted and unpaid, due and not due	$836 31	
Deduct reinsurance	200 00	
Net amount of unpaid losses		$636 31
Unearned premiums at 50 per cent on fire risks running one year or less	$6,940 67	
Unearned premiums pro rata on fire risks running more than one year	10,776 02	
Total unearned premiums as computed above		17,716 69
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		350 00
Commissions, brokerage and other charges due or to become due to agents and brokers		1,559 00
Reinsurance premiums		1,171 22
Total liabilities, except capital stock		$21,433 22
Cash capital	$209,000 00	
Surplus over all liabilities	74,377 03	
Surplus to policyholders		283,377 03
Total		$304,810 25

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$478,733	$7,558 33
Written during the year	3,230,083	56,628 26
Totals	$3,708,816	$64,186 59
Expired and terminated	1,019,457	19,017 52
In force at end of the year	$2,689,359	$45,169 07
Deduct amount reinsured	896,208	17,408 26
Net amount in force	$1,793,151	$27,760 81

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Fire risks.	Premiums.
In force, having from date of policy not more than one year to run	$822,978	$6,940 67
More than one and not more than three years to run	969,173	10,704 74
More than three years to run	1,000	71 28
Net amount in force December 31, 1911	$1,793,151	$17,716 69

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$25,000 00
Losses incurred during the year: Fire	8,727 58

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$3,049,325 00
Less	1,620,093 00
Net risks written	1,429,232 00
Gross premiums received	53,585 89
Less	32,576 04
Net premiums received	21,009 85
Net losses paid	12,596 21
Net losses incurred	8,527 58

LUMBER INSURANCE COMPANY.

New York, N. Y.

(Incorporated June 1, 1904. Commenced business in California in 1907.)

G. A. MITCHELL, President. R. H. MCKELVEY, Secretary.

Agent for service in California: J. F. BIRLEM, San Francisco.

CAPITAL.

Capital stock paid in cash—Adirondack	$200,000 00	
Capital stock paid in cash—Lumber Insurance Company	200,000 00	
Amount of ledger assets December 31st of previous year—Adirondack		$465,623 18
Amount of ledger assets December 31st of previous year—Lumber Insurance Company		534,039 72
Extended at		$999,662 90

INCOME.

	Fire.	
Gross premiums	$891,751 48	
Deduct gross amount paid for reinsurance, fire, $223,591.09; return premiums, fire, $262,891.70	486,482 79	
Total premiums (other than perpetuals)		$405,268 69
Interest on bonds and dividends on stocks	$28,606 92	
Interest from other sources	2,685 62	
Total interest and rents		31,292 54
From other sources: Amount paid in by Adirondack Fire Insurance Company stockholders in order to equalize the value of Adirondack Fire Insurance Company stock with that of the Lumber Insurance Company on March 31, 1911, the date of the merger		38,000 00
Increase in book value of ledger assets		294 58
Total income		$474,855 81
Total		$1,474,518 71

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$531,364 57	
Deduct amount received for salvage, fire, $1,613.35; reinsurance, fire, $174,279.09; discount, fire, $835.86	176,728 30	
Net amount paid for losses		$354,636 27
Expenses of adjustment, settlement of losses		5,574 14
Commissions or brokerage		134,142 39
Salaries, fees and other charges of officers, directors, trustees, agents and employees		13,761 00
Rents, including company's occupancy of its own buildings		1,216 99
Legal expenses		5,556 84
Underwriters' boards and tariff associations		2,359 00
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		918 68
State taxes on premiums		11,967 58
Insurance department licenses and fees		6,656 65
Other disbursements		1,918 22
Agents' balances charged off		6,840 87
Decrease in book value of ledger assets		643 94
Total disbursements		$546,192 57
Balance		$928,326 14

LEDGER ASSETS.

Book value of bonds and stocks	$732,761 98
Cash in office	4,000 00
Deposits in trust companies and banks on interest	65,558 41
Agents' balances, representing business written subsequent to October 1st. last	126,005 75
Total ledger assets	$928,326 14

Non-Ledger Assets.

Interest due and accrued on bonds	7,490 83
Gross assets	$935,816 97

Deduct Assets Not Admitted.

Book value of ledger assets over market value, bonds	49,161 98
Total admitted assets	$886,654 99

LIABILITIES.

Losses adjusted and unpaid, due and not due	$10,450 00	
Losses in process of adjustment, or in suspense	81,535 09	
Total claims for losses	$91,985 09	
Deduct reinsurance	38,637 26	
Net amount of unpaid losses		$53,347 83
Unearned premiums at 50 per cent on fire risks running one year or less	$196,809 98	
Unearned premiums pro rata on fire risks running more than one year	48,484 97	
Total unearned premiums as computed above		245,294 95
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		551 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		8,200 00
Commissions, brokerage and other charges due or to become due to agents and brokers		31,501 44
Total liabilities, except capital stock		$338,895 22
Cash capital	$400,000 00	
Surplus over all liabilities	147,759 77	
Surplus to policyholders		547,759 77
Total		$886,654 99

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910. Adirondack Fire Insurance Company	$27,900,103	$420,653 52
In force December 31, 1910. Lumber Insurance Company	35,549,743	564,324 88
Written during the year	60,719,738	891,751 48
Totals	$124,169,584	$1,876,729 88
Expired and terminated	74,938,307	1,184,213 84
In force at end of the year	$49,231,277	$692,516 04
Deduct amount reinsured	13,534,281	215,432 98
Net amount in force	$35,696,996	$477,083 06

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$27,826,263	$393,619 97
More than one and not more than three years to run	6,330,243	65,368 69
More than three years to run	1,540,490	18,094 40
Net amount in force December 31, 1911	$35,696,996	$477,083 06

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$26,000 00
Losses incurred during the year: Fire	359,802 98

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$902,150 00
Less	342,831 00
Net risks written	559,319 00
Gross premiums received	16,654 56
Less	6,024 82
Net premiums received	10,629 74
Net losses paid	770 79
Net losses incurred	520 79

MECHANICS AND TRADERS' INSURANCE COMPANY.

New Orleans, La.

(Incorporated October 15, 1869. Commenced business in California, 1906.)

JAMES NICHOLS, President. T. B. NORTON, Secretary.

Agent for service in California: WAYMAN & HENRY, San Francisco.

CAPITAL.

Capital stock paid in cash	$300,000 00	
Amount of ledger assets December 31st of previous year		$1,397,319 36

INCOME.

	Fire.	Marine and inland.	
Gross premiums	$1,274,013 41	$2,044 21	
Deduct gross amount paid for reinsurance, fire, $321,556.63; marine and inland, $1,075.98; return premiums, fire, $241,353.11	562,909 74	1,075 98	
Total premiums (other than perpetuals)	$711,103 67	$968 23	$712,071 90
Interest on mortgage loans		$27 13	
Interest on bonds and dividends on stocks		52,538 03	
Interest from other sources		385 26	
Rents, including company's occupancy of its own buildings		3,600 00	
Total interest and rents			56,550 42
Dividend from liquidation of Canal Bank and Trust Company			24 00
Agents' balances previously charged off			3 19
Profit on sale or maturity of ledger assets			14 65
Total income			$768,664 16
Total			$2,165,983 52

DISBURSEMENTS.

	Fire.	Marine and inland.	
Gross amount paid for losses	$647,481 70	$28 35	
Deduct amount received for salvage, fire, $3,599.86; reinsurance, fire, $212,517.56; marine and inland, $18.90	216,117 42	18 90	
Net amount paid for losses	$431,364 28	$9 45	$431,373 73

Expenses of adjustment, settlement of losses	$6,464 58
Commissions or brokerage	124,808 68
Allowances to local agencies for miscellaneous agency expenses	267 00
Salaries and expenses of special and general agents	53,962 85
Salaries, fees and other charges of officers, directors, trustees, agents and employees	5,577 60
Rents, including company's occupancy of its own buildings	2,600 00
Advertising, printing and stationery	6,280 13
Postage, telegrams, telephone and express	5,096 00
Legal expenses	2,213 06
Furniture and fixtures	351 72
Maps, including corrections	96 51
Underwriters boards and tariff associations	11,370 00
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses	6,014 69
Inspections and surveys	159 95
Repairs and expenses on real estate	195 96
Taxes on real estate	910 40
State taxes on premiums	12,620 28
Insurance department licenses and fees	4,657 50
All other licenses, fees and taxes	8,473 81
Sundry expenses in departments	1,610 84
Vault rent, $75; sundry expenses at home office, $102.35	177 35
Western Factory Insurance Association, $1,258.23; Factory Assurance Association, $2,018.70	3,276 93
Premium on surety bonds	170 39
Court award to stockholder	889 90
Interest and dividends to stockholders	12,000 00
Loss on sale or maturity of ledger assets	125 00
Total disbursements	$701,744 86
Balance	$1,464,238 66

LEDGER ASSETS.

Book value of real estate	$22,000 00
Mortgage loans on real estate	300 00
Book value of bonds and stocks	1,282,215 35
Deposits in trust companies and bonds not on interest	32,899 88
Agents' balances, representing business written subsequent to October 1st, last	124,518 23
Agents' balances, representing business written prior to October 1st, last	2,205 20
Deposit with Guarantee Trust and Safe Deposit Company, Philadelphia	100 00
Total ledger assets	$1,464,238 66

Non-Ledger Assets.

Interest due and accrued on bonds	22,352 50
Market value of real estate over book value	1,500 00
Gross assets	$1,497,991 16

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$2,205 20	
Book value of ledger assets over market value: Bonds, $29,332.60; stocks, $71,367.93	100,700 53	
Total		102,905 73
Total admitted assets		$1,385,085 43

LIABILITIES.

Losses adjusted and unpaid, due and not due	$4,518 01	
Losses in process of adjustment, or in suspense	91,831 43	
Losses resisted	2,350 00	
Total claims for losses	$98,699 44	
Deduct reinsurance	32,722 44	
Net amount of unpaid losses		$65,977 00
Unearned premiums at 50 per cent on fire risks running one year or less	$253,878 92	
Unearned premiums pro rata on fire risks running more than one year	292,100 43	
Total unearned premiums as computed above		545,979 35
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		10,000 00
Total liabilities, except capital stock		$621,956 35
Cash capital	$300,000 00	
Surplus over all liabilities	463,129 08	
Surplus to policyholders		763,129 08
Total		$1,385,085 43

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$125,383,142	$1,430,954 61
Written during the year	112,982,036	1,274,013 41
Totals	$238,365,178	$2,704,968 02
Expired and terminated	104,036,042	1,228,735 87
In force at end of the year	$134,329,136	$1,476,232 15
Deduct amount reinsured	39,312,370	422,703 09
Net amount in force	$95,016,766	$1,053,529 06

	Marine and inland risks.	Premiums.
Written during the year	$526,388	$2,044 21
Expired and terminated	526,388	2,044 21

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$44,497,758	$50,757 84
More than one and not more than three years to run	40,804,273	429,077 28
More than three years to run	9,714,735	116,693 94
Net amount in force December 31, 1911	$95,016,766	$1,053,529 06

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$25,000 00
Losses incurred during the year: Fire, $412,103.36; marine and inland, $9.45	412,112 81

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$4,914,464 00
Less	1,800,382 00
Net risks written	3,114,082 00
Gross premiums received	79,518 60
Less	23,355 90
Net premiums received	56,162 70
Net losses paid	18,217 09
Net losses incurred	13,904 24

MERCANTILE FIRE AND MARINE INSURANCE COMPANY.

Boston, Mass.

(Incorporated February 11, 1823. Commenced business in California March 3, 1898.)

E. F. CAMPBELL, President. JAMES SIMPSON, Secretary.

Agent for service in California: CHRISTENSEN & GOODWIN, San Francisco.

CAPITAL.

Capital stock paid in cash	$200,000 00	
Amount of ledger assets December 31st of previous year		$487,150 44

INCOME.

	Fire.	
Gross premiums	$482,456 73	
Deduct gross amount paid for reinsurance, fire, $103,733.58; return premiums, fire, $79,949.00	183,684 58	
Total premiums (other than perpetuals)		$298,774 15
Interest on mortgage loans	$2,837 74	
Interest on bonds and dividends on stocks	12,776 66	
Interest from other sources	482 93	
Total interest and rents		16,097 33
Dividend National Suffolk Bank in liquidation		14 88
Profits from General Agency		25,876 87
Total income		$340,763 23
Total		$827,913 67

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses, $48,488.87	$260,849 46	
Deduct amount received for salvage, fire, $2,645.84; reinsurance, fire, $99,764.15; discount, fire, $158.25	102,568 24	
Net amount paid for losses		$158,281 22
Expenses of adjustment, settlement of losses		2,380 27
Commissions or brokerage		63,139 88
Allowances to local agencies for miscellaneous agency expenses		1,159 18
Salaries and expenses of special and general agents		19,036 16
Salaries, fees and other charges of officers, directors, trustees, agents and employees		31,915 46
Rents, including company's occupancy of its own buildings		7,481 70
Advertising, printing and stationery		4,074 18
Postage, telegrams, telephone and express		4,522 13
Legal expenses		74 49
Furniture and fixtures		588 38
Maps, including corrections		1,371 52
Underwriters' boards and tariff associations		3,146 08
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		1,139 47
Inspection and surveys		2,768 03
State taxes on premiums		5,181 15
Insurance department licenses and fees		2,483 05
All other licenses, fees and taxes		1,077 83
Other disbursements		1,224 25
Total disbursements		$311,044 43
Balance		$516,869 24

LEDGER ASSETS.

Mortgage loans on real estate	$67,800 00
Book value of bonds and stocks	371,212 25
Cash in office	844 01
Deposits in trust companies and banks on interest	30,507 39
Agents' balances, representing business written subsequent to October 1st, last	46,479 98
Agents' balances, representing business written prior to October 1st, last	869 62
Total ledger assets	$516,869 24

Non-Ledger Assets.

Interest due and accrued on mortgages	$568 43	
Interest due and accrued on bonds	4,487 44	
Total		5,055 87
Market value of bonds and stocks over book value		2,807 75
Other non-ledger assets: General agency profit		271 60
Gross assets		$525,004 46

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	869 62
Total admitted assets	$524,134 84

LIABILITIES.

Losses in process of adjustment, or in suspense	$47,830 55	
Losses resisted	8,705 88	
Total claims for losses	$56,536 43	
Deduct reinsurance	19,498 49	
Net amount of unpaid losses		$37,037 94
Unearned premiums at 50 per cent on fire risks running one year or less	$113,570 76	
Unearned premiums pro rata on fire risks running more than one year	87,829 81	
Total unearned premiums as computed above		201,400 57
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		2,351 41
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		4,561 30
Commissions, brokerage and other charges due or to become due to agents and brokers		2,125 00
Total liabilities, except capital stock		$247,476 22
Cash capital	$200,000 00	
Surplus over all liabilities	76,658 62	
Surplus to policyholders		276,658 62
Total		$524,134 84

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$57,566,263	$708,520 05
Written during the year	36,311,947	482,456 73
Totals	$93,878,210	$1,190,976 78
Expired and terminated	37,273,822	506,216 09
In force at end of the year	$56,604,388	$684,760 69
Deduct amount reinsured	27,818,062	330,825 94
Net amount in force	$28,786,326	$353,934 75

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$15,870,936	$227,141 52
More than one and not more than three years to run	99,428	578 77
More than three years to run	12,815,962	126,214 46
Net amount in force December 31, 1911	$28,786,326	$343,934 75

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$20,000 00
Losses incurred during the year: Fire	163,575 42

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$3,150,032 00
Less	989,575 00
Net risks written	2,160,457 00
Gross premiums received	46,745 08
Less	12,714 28
Net premiums received	34,030 80
Net losses paid	8,570 83
Net losses incurred	8,962 26

MERCHANTS' FIRE ASSURANCE CORPORATION OF NEW YORK.

New York, N. Y.

(Incorporated February 9, 1910. Commenced business in California March 1, 1910.)

EDWARD L. BALLARD, President. WILBUR S. LEMMON, Secretary.

Agent for service in California: ASSOCIATED UNDERWRITERS, INC., San Francisco.

CAPITAL.

Capital stock paid in cash	$200,000 00	
Amount of ledger assets December 31st of previous year		$598,794 97

INCOME.

	Fire.	
Gross premiums	$332,422 79	
Deduct gross amount paid for reinsurance, fire, $20,844.37; return premiums, fire, $65,595.41	86,439 78	
Total premiums (other than perpetuals)		$245,983 01
Interest on mortgage loans	$8,982 09	
Interest on bonds and dividends on stocks	16,634 47	
Interest from other sources	2,002 18	
Total interest and rents		27,618 74
Profit on sale or maturity of ledger assets		14,019 00
Total income		$287,620 75
Total		$886,415 69

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$88,042 93	
Deduct amount received for salvage, fire, $1,040.62; reinsurance, fire, $5,463.66	6,504 28	
Net amount paid for losses		$81,538 65
Expenses of adjustment, settlement of losses		1,540 54
Commissions or brokerage		54,296 52
Allowances to local agencies for miscellaneous agency expenses		146 96

Salaries, fees and other charges of officers, directors, trustees, agents and employees	$17,197 31
Rents, including company's occupancy of its own buildings	1,886 64
Advertising, printing and stationery	726 79
Postage, telegrams, telephone and express	594 70
Legal expenses	7 00
Furniture and fixtures	298 17
Maps, including corrections	1,246 75
Underwriters' boards and tariff associations	816 76
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses	2,299 58
Inspections and surveys	28 14
State taxes on premiums	1,945 14
Insurance department licenses and fees	1,131 66
All other licenses, fees and taxes	56 00
Traveling	496 71
Miscellaneous petty expenses	455 69
Loss on sale or maturity of ledger assets	4,245 50
Decrease in book value of ledger assets	206 25
Total disbursements	$171,161.46
Balance	$715,254 23

LEDGER ASSETS.

Mortgage loans on real estate	$201,500 00
Book value of bonds and stocks	339,980 02
Cash in office	2,644 52
Deposits in trust companies and banks on interest	137,448 82
Agents' balances, representing business written subsequent to October 1st, last	33,680 87
Total ledger assets	$715,254 23

Non-Ledger Assets.

Interest due and accrued on mortgages	$2,604 35	
Interest due and accrued on bonds	523 00	
Interest due and accrued on other assets	1,902 02	
Total		5,029 37
Gross assets		$720,283 60

Deduct Assets Not Admitted.

Book value of ledger assets over market value	21,655 02
Total admitted assets	$698,628 58

LIABILITIES.

Losses adjusted and unpaid, due and not due	$1,808 90	
Losses in process of adjustment, or in suspense	18,317 60	
Total claims for losses	$20,126 50	
Deduct reinsurance	3,031 08	
Net amount of unpaid losses		$17,095 42
Unearned premiums at 50 per cent on fire risks running one year or less		86,335 40
Unearned premiums pro rata on fire risks running more than one year		67,580 40
All other liabilities: Salaries, rents, etc., due or accrued		1,000 00
Estimated taxes		3,500 00
Total liabilities, except capital stock		$175,511 22
Cash capital	$200,000 00	
Surplus over all liabilities	323,117 36	
Surplus to policyholders		523,117 36
Total		$698,628 58

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$18,549,725	$164,413 64
Written during the year	33,755,960	332,422 79
Totals	$52,305,685	$496,836 43
Expired and terminated	23,494,798	209,316 12
In force at end of the year	$28,810,887	$287,520 31
Deduct amount reinsured	1,850,089	21,675 06
Net amount in force	$26,960,798	$265,845 25

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$18,515,985	$172,670 80
More than one and not more than three years to run	7,884,797	84,993 66
More than three years to run	560,016	81,807 79
Net amount in force December 31, 1911	$26,960,798	$265,845 25

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$20,000 00
Losses incurred during the year: Fire	90,505 01

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$3,269,224 00
Less	1,186,185 00
Net risks written	2,083,039 00
Gross premiums received	61,784 70
Less	20,008 45
Net premiums received	41,776 25
Net losses paid	1,539 41
Net losses incurred	1,431 31

THE MERCHANTS' FIRE INSURANCE COMPANY.

Denver, Colo.

(Incorporated July 1, 1907. Commenced business in California August 1, 1910.)

W. J. GALLIGAN President. J. B. GARDNER, Secretary.

Agent for Service in California: C. D. HALL, Los Angeles, Cal.

CAPITAL.

Capital stock paid in cash	$200,000 00	
Amount of ledger assets December 31st of previous year		$364,555 82

INCOME.

	Fire.	
Gross premiums	$144,255 76	
Deduct gross amount paid for reinsurance, fire, $16,277.26; return premiums, fire, $26,022.49	42,299 75	
Total premiums (other than perpetuals)		$101,956 01
Interest on mortgage loans	$15,089 89	
Interest on bonds and dividends on stocks	4,074 00	
Interest from other sources	1,326 66	
Rents, including company's occupancy of its own buildings	400 72	
Total interest and rents		20,891 27

Total premiums and rents		$122,847 28
Commission on loans		1,437 55
Commission on reinsurance		3,764 60
Notary public fees		6 00
Increase in book value of bonds		343 97
Total income		$128,399 40
Total		$429,955 22

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$51,753 26	
Deduct amount received for reinsurance	7,130 38	
Net amount paid for losses		$44,622 88
Expenses of adjustment, settlement of losses		617 86
Commissions or brokerage		27,328 79
Salaries and expenses of special and general agents		6,937 75
Salaries, fees and other charges of officers, directors, trustees, agents and employees		8,392 54
Rents, including company's occupancy of its own buildings		1,200 00
Advertising, printing and stationery		1,337 65
Postage, telegrams, telephone and express		1,333 98
Legal expenses		300 00
Furniture and fixtures		347 00
Maps, including corrections		565 60
Underwriters' bonds and tariff associations		1,158 72
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		103 17
Inspections and surveys		120 38
State taxes on premiums		1,476 17
Insurance department licenses and fees		1,271 00
All other licenses, fees and taxes		200 33
Expense: Miscellaneous		2,176 55
Interest and dividends to stockholders		16,000 00
Total disbursements		$115,490 37
Balance		$377,464 85

LEDGER ASSETS.

Mortgage loans on real estate		$242,684 15
Book value of bonds and stocks		77,963 36
Cash in office		3,782 03
Deposit in trust companies and banks on interest		32,941 26
Agents' balances, representing business written prior to October 1, last		1,005 82
Agents' balances, representing business written subsequent to October 1, last		18,880 74
Bills receivable, taken for marine and inland risks		96 00
Other ledger assets: Due from reinsuring companies for fire losses		111 49
Total ledger assets		$377,464 85

Non-Ledger Assets.

Interest due and accrued on mortgages	$7,134 79	
Interest due and accrued on bonds	1,359 45	
Interest due and accrued on other assets	476 59	
Total		8,970 83
Fixtures, furniture and equipment		2,913 30
Gross assets		$389,348 98

Deduct Assets Not Admitted.

Furniture, fixtures and safes	$2,913 30
Agents' balances, representing business written prior to October 1, last	1,550 82
Total admitted assets	$385,429 86

LIABILITIES.

Losses adjusted and unpaid, due and not due		$8,287 96
Deduct reinsurance		1,766 91
Net amount of unpaid losses		$6,521 05
Unearned premiums at 50 per cent, on fire risks running one year or less	$29,990 23	
Unearned premiums pro rata on fire risks running more than one year	52,745 30	
Total unearned premiums as computed above		82,735 53
Tax on premiums		2,084 16
Total liabilities, except capital stock		91,340 74
Cash capital	$200,000 00	
Surplus over all liabilities	94,089 12	
Surplus to policyholders		294,089 12
Total		$385,429 86

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$7,225,432	$110,535 79
Written during the year	10,789,102	144,255 76
Excess of original premiums over amount received for reinsurance		662 73
Totals	$18,014,534	$255,454 28
Expired and terminated	7,056,892	87,784 63
In force at end of the year	$10,957,642	$167,669 65
Deduct amount reinsured	1,043,835	20,113 85
Net amount in force	$9,913,807	$147,555 80

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one one year to run	$4,040,301	$ 59,980 47
More than one and not more than three years to run	5,123,381	70,912 02
More than three years to run	750,125	16,663 31
Net amount in force December 31, 1911	$9,913,807	$147,555 80

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance, New York (four floors sprinkled)	$15,000 00
Losses incurred during the year, fire	49,726 79
Amount loaned to stockholders not officers	12,250 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$750,591 00
Less	183,678 00
Net risks written	552,913 00
Gross premiums received	16,298 68
Less	4,525 22
Net premiums received	11,773 46
Net losses paid	2,892 99
Net loss incurred	3,793 20

MICHIGAN FIRE AND MARINE INSURANCE COMPANY.

Detroit, Mich.

(Incorporated 1880. Commenced business in California May 1st, 1901.)

M. W. O'BRIEN, President. H. E. EVERETT, Secretary.

Agent for service in California: C. A. HENRY, San Francisco.

CAPITAL.

Capital stock paid in cash	$400,000 00	
Amount of ledger assets December 31st of previous year		$1,336,239 65

INCOME.

	Fire.	
Gross premiums	$995,366 35	
Deduct gross amount paid for reinsurance, fire, $141,323.67; return premiums, fire, $186,000.95	327,324 62	
Total premiums (other than perpetuals)		$668,041 73
Interest on mortgage loans	$28,416 87	
Interest on bonds and dividends on stocks	22,252 38	
Interest from other sources	660 36	
Rents, including company's occupancy of its own buildings	145 00	
Total interest and rents		51,474 61
Profit on sale or maturity of ledger assets		758 30
Increase in book value of ledger assets		14 40
Total		$720,289 04

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$385,463 88	
Deduct amount received for salvage, fire, $783.23; reinsurance, fire, $76,884.98; discount, fire, $708.04	78,376 25	
Net amount paid for losses		$307,087 63
Expenses of adjustment, settlement of losses		4,812 32
Commissions or brokerage		162,985 25
Allowances to local agencies for miscellaneous agency expenses		1,521 22
Salaries and expenses of special and general agents		16,790 70
Salaries, fees and other charges of officers, directors, trustees, agents and employees		22,456 07
Rents, including company's occupancy of its own buildings		4,999 92
Advertising, printing and stationery		12,278 83
Postage, telegrams, telephone and express		4,187 25
Legal expenses		1,158 10
Furniture and fixtures		961 84
Maps, including corrections		3,140 23
Underwriters' boards and tariff associations		8,043 10
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		6,889 15
Inspections and surveys		5,379 42
Repairs and expenses on real estate		74 85
Taxes on real estate		1,425 32
State taxes on premiums		15,803 08
Insurance department licenses and fees		3,987 23
All other licenses, fees and taxes		1,211 51
Exchange on remittances		310 31
R. G. Dunn and Bradstreet's reports		560 00
Interest and dividends to stockholders		40,000 00
Loss on sale or maturity of ledger assets, real estate per Schedule A		2,025 00
Decrease in book value of ledger assets, bonds per Schedule D		1,401 25
Total disbursements		$629,489 58
Balance		$1,427,039 11

LEDGER ASSETS.

Book value of real estate		$54,380 28
Mortgage loans on real estate		512,236 45
Book value of bonds and stocks		630,250 00
Cash in office		22,769 77
Deposits in trust companies and banks not on interest		66,388 54
Agents' balances, representing business written subsequent to October 1st, last		139,848 88
Agents' balances, representing business written prior to October 1st, last		1,044 57
Calumet Insurance Company	$13 75	
Mercantile Fire and Marine Insurance Company	6 87	
Philadelphia Underwriters' Association	100 00	120 62
Total ledger assets		$1,427,039 11

Non-Ledger Assets.

Interest due and accrued on mortgages	$7,071 93	
Interest due and accrued on bonds	7,898 87	
Interest due and accrued on other assets	169 19	
Total		15,139 99
Market value of real estate over book value		12,498 44
Market value of bonds and stocks over book value		5,830 00
Gross assets		$60,507 54

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last		1,044 57
Total admitted assets		$1,459,462 97

LIABILITIES.

Losses adjusted and unpaid, due and not due	$39,114 09	
Losses in process of adjustment, or in suspense	49,011 75	
Losses resisted	5,284 15	
Total claims for losses	$93,409 99	
Deduct reinsurance	23,851 44	
Net amount of unpaid losses		$69,558 55
Unearned premiums at 50 per cent on fire risks running one year or less	$216,668 52	
Unearned premiums pro rata on fire risks running more than one year	367,419 06	
Total premiums as computed above		$584,087 58
Dividends declared and unpaid to stockholders		20,000 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		8,500 00
Commissions, brokerage and other charges due or to become due to agents and brokers		4,542 54
Return premiums, $3,577.87; reinsurance premiums, $2,581.94		6,159 81
Total		$692,848 48
Cash capital	$400,000 00	
Surplus over all liabilities	366,614 49	
Surplus to policyholders		$766,614 49
Total		$1,459,462 97

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$103,960,591	
Written during the year	87,140,060	$1,158,379 35
Excess of original premiums over amount received for reinsurance	————	995,366 35
Totals	$191,100,651	$2,153,745 70
Expired and terminated	75,426,898	898,412 84
In force at end of the year	$115,673,753	$1,255,332 86
Deduct amount reinsured	13,245,345	141,323 67
Net amount in force	$102,428,408	$1,114,009 19

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$40,000 00
Losses incurred during the year: Fire	6,475,386 31

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$6,719,178 00
Less	2,571,733 00
Net risks written	4,147,445 00
Gross premiums received	105,652 21
Less	38,859 44
Net premiums received	66,792 77
Net losses paid	13,063 39
Net losses incurred	13,338 51

MICHIGAN COMMERCIAL INSURANCE COMPANY.

Lansing, Mich.

(Incorporated December 7, 1904. Commenced business in California, 1908.)

F. D. BENNETT, President. N. D. BAKER, Secretary.

Agent for service in California: T. J. A. TIEDEMANN, San Francisco.

CAPITAL.

Capital stock paid in cash	$400,000 00	
Amount of ledger assets December 31st of previous year		$1,096,227 19

INCOME.

	Fire.	Marine and inland.	
Gross premiums	$1,263,634 32	$131,833 13	
Deduct gross amount paid for reinsurance, fire, $267,950.22; marine and inland, $97,375.72; return premiums, fire, $273,923.91; marine and inland, $34,285.20	541,874 13	131,660 92	
Total premiums (other than perpetuals)	$721,760 19	$172 21	$721,932 40

Interest on mortgage loans	$29,894 90	
Interest on bonds and dividends on stocks	9,266 67	
Interest from other sources	1,331 54	
Rents, including company's occupancy of its own buildings	1,500 00	
Total interest and rents		41,993 11
Total income		$763,925 51
Total		$1,860,152 70

DISBURSEMENTS.

	Fire.	Marine and inland.	
Gross amount paid for losses	$689,146 91	$51,417 53	
Deduct amount received for salvage, fire, $3,462.78; reinsurance, fire, $223,603.74; marine and inland, $51,276.18	227,066 52	51,276 18	
Net amount paid for losses	$462,080 39	$141 35	$462,221 74
Expenses of adjustment, settlement of losses			10,971 43
Commissions or brokerage			149,763 85
Allowances to local agencies for miscellaneous agency expenses			1,028 25
Salaries and expenses of special and general agents			51,097 45
Salaries, fees and other charges of officers, directors, trustees, agents and employees			15,575 94
Rents, including company's occupancy of its own buildings			5,081 25
Advertising, printing and stationery			9,859 30
Postage, telegrams, telephone and express			9,413 28
Legal expenses			661 96
Furniture and fixtures			925 76
Maps, including corrections			3,126 55
Underwriters' boards and tariff associations			5,833 94
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses			9,522 34
Inspections and surveys			6,022 40
Repairs and expenses on real estate			535 58
Taxes on real estate			258 91
State taxes on premiums			12,985 60
Insurance department licenses and fees			6,140 04
All other licenses, fees and taxes			6,734 18
Other disbursements			3,547 02
Decrease in book value of ledger assets			245 95
Total disbursements			$771,552 72
Balance			$1,088,599 98

LEDGER ASSETS.

Book value of real estate	$13,877 99
Mortgage loans on real estate	595,051 00
Book value of bonds and stocks	190,898 00
Cash in office	180 97
Deposits in trust companies and banks not on interest	11,221 96
Deposits in trust companies and banks on interest	149,077 13
Agents' balances, representing business written subsequent to October 1st, last	127,502 21
Agents' balances, representing business written prior to October 1st, last	790 72
Total ledger assets	$1,088,599 98

Non-Ledger Assets.

Interest due and accrued on mortgages	$11,091 59	
Interest due and accrued on bonds	2,463 92	
Interest due and accrued on other assets	137 33	
Total		13,692 84
Market value of real estate over book value		1,000 00
Market value of bonds and stocks over book value		2,274 00
Gross assets		$1,105,566 82

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	790 72
Total admitted assets	$1,104,776 10

LIABILITIES.

Losses adjusted and unpaid, due and not due	$25,903 62	
Losses in process of adjustment, or in suspense	84,892 68	
Losses resisted	10,032 30	
Total claims for losses	$120,828 60	
Deduct reinsurance	63,403 48	
Net amount of unpaid losses		$57,425 12
Unearned premiums at 50 per cent on fire risks running one year or less	$246,824 53	
Unearned premiums pro rata on fire risks running more than one year	302,687 62	
Unearned premiums at 50 per cent on inland navigation risks	79 16	
Total unearned premiums as computed above		549,591 31
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		2,250 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		12,000 00
Commissions, brokerage and other charges due or to become due to agents and brokers		750 00
Total liabilities, except capital stock		$622,016 43
Cash capital	$400,000 00	
Surplus over all liabilities	82,759 67	
Surplus to policyholders		482,759 67
Total		$1,104,776 10

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$171,779,742	$1,998,854 08
Written during the year	105,778,095	1,263,634 32
Excess of original premiums over amount received for reinsurance	----------	5,373 05
Totals	$277,557,837	$3,267,861 45
Expired and terminated	129,182,089	1,571,997 88
In force at end of the year	$148,375,748	$1,695,863 57
Deduct amount reinsured	55,240,019	663,372 75
Net amount in force	$93,135,729	$1,032,490 82

	Marine and inland risks.	Premiums.
In force December 31, 1910	$3,794,948	$89,000 07
Written during the year	4,716,796	131,833 13
Totals	$8,511,744	$220,833 20
Expired and terminated	5,159,080	123,863 51
In force at end of the year	$3,352,664	$96,969 69
Deduct amount reinsured	3,346,264	96,811 38
Net amount in force	$6,400	$158 31

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$39,190,493	$493,649 05
More than one and not more than three years to run	41,964,400	395,538 72
More than three years to run	11,980,836	143,303 05
Net amount in force December 31, 1911	$93,135,729	$1,032,490 82

MISCELLANEOUS.

Largest amount written on any one risk, not deducting reinsurance	$40,000 00
Losses incurred during the year: Fire, $449,787.56; marine and inland, $141.35	449,928 91

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$4,131,525 00
Less	1,549,361 00
Net risks written	2,582,164 00
Gross premiums received	63,779 84
Less	16,820 18
Net premiums received	46,959 66
Net losses paid	13,072 72
Net losses incurred	16,711 25

NATIONAL-BEN FRANKLIN FIRE INSURANCE COMPANY.

Pittsburg, Pa.

(Incorporated December 28, 1910. Commenced business in California, 1911.)

SAMUEL MCKNIGHT, President. H. M. SCHMITT, Secretary.

Agent for service in California: JAMES F. COBB, San Francisco.

CAPITAL.

Capital stock paid in cash	$1,000,000 00	
Amount of ledger assets December 31st of previous year		$3,094,569 71

INCOME.

	Fire.	
Gross premiums	$1,881,877 92	
Deduct gross amount paid for reinsurance, fire, $232, 878.94; return premiums, fire, $342,171.26	575,050 20	
Total premiums (other than perpetuals)		$1,306,827 72
Interest on mortgage loans	$139,897 77	
Interest on collateral loans	10,210 63	
Interest on bonds and dividends on stocks	486 12	
Interest from other sources	4,545 60	
Rents, including company's occupancy of its own buildings	8,459 00	
Total interest and rents		163,599 12
Agents' balances previously charged off		222 68
Total income		$1,470,649 52
Total		$4,565,219 23

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$274,764 03	
Deduct amount received for salvage, fire, $6,097.43; reinsurance, fire, $45,981.87	52,079 30	
Net amount paid for losses		$672,684 73
Expenses of adjustment, settlement of losses		13,868 26
Commissions or brokerage		371,917 60
Allowances to local agencies for miscellaneous agency expenses		19,126 87
Salaries and expenses of special and general agents		24,029 43
Salaries, fees and other charges of officers, directors, trustees, agents and employees		60,285 87

Rents, including company's occupancy of its own buildings	$7,978 75
Advertising, printing and stationery	11,846 30
Postage, telegrams, telephone and express	4,050 26
Legal expenses	2.445 34
Furniture and fixtures	738 46
Maps, including corrections	993 03
Underwriters' boards and tariff associations	11.485 76
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses	8.343 87
Inspections and surveys	3.095 46
Repairs and expenses on real estate	5.434 22
Taxes on real estate	2.187 98
State taxes on premiums	19.863 99
Insurance department licenses and fees	9.564 03
All other licenses, fees and taxes	3.634 37
Miscellaneous home office expense	1.181 04
Light and heat	1.043 38
Traveling expenses	1.303 91
Premiums due other companies during year	3.440 21
Interest and dividends to stockholders	136.064 00
Agents' balances charged off	4.800 05
Total disbursements	$1.401.407 17

LEDGER ASSETS.

Book value of real estate		$142.168 51
Mortgage loans on real estate		2.464.671 00
Loans secured by pledge of bonds, stocks or other collaterals		115.050 00
Book value of bonds and stocks		48.107 50
Cash in office		41.200 62
Deposits in trust companies and banks on interest		140.590 79
Agents' balances, representing business written subsequent to October 1st, last		202.608 43
Agents' balances, representing business written prior to October 1st, last		9.215 21
Deposit with Philadelphia Underwriters' Association		200 00
Total ledger assets		$3,163.812 06

Non-Ledger Assets.

Interest due and accrued on mortgages	$47.031 79	
Interest due and accrued on bonds	716 67	
Interest due and accrued on collateral loans	693 58	
Rents due and accrued on company's property	239 00	
Total		48.681 04
Market value of real estate over book value		11.515 64
Market value of bonds and stocks over book value		367 50
Gross assets		$3.224.376 24

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last		9.215 21
Total admitted assets		$3.215.161 03

LIABILITIES.

Losses adjusted and unpaid, due and not due	$38,066 75	
Losses in process of adjustment, or in suspense	115.443 47	
Losses resisted	17.050 00	
Total claims for losses	$170.560 22	
Deduct reinsurance	15.226 06	
Net amount of unpaid losses		$155.334 16

Unearned premiums at 50 per cent on fire risks running one year or less	$302,439 76	
Unearned premiums pro rata on fire risks running more than one year	1,096,369 37	
Total unearned premiums as computed above		$1,398,809 13
Dividends declared and unpaid to stockholders		409 00
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		583 26
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		20,700 00
Commissions, brokerage and other charges due or to become due to agents and brokers		494 98
Total		$22,187 24
Losses, $155,334.16; unearned premiums, $1,398,809.13		1,554,143 29
Total liabilities, except capital stock		$1,576,330 53
Cash capital	$1,000,000 00	
Surplus over all liabilities	638,830 50	
Surplus to policyholders		1,638,830 50
Total		$3,215,161 03

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$267,377,392	$2,712,488 66
Written during the year	191,684,503	1,881,877 92
Totals	$459,061,895	$4,594,366 58
Expired and terminated	151,622,058	1,648,921 58
In force at end of the year	$307,439,837	$2,945,445 00
Deduct amount reinsured	32,010,189	333,468 99
Net amount in force	$275,429,648	$2,611,976 01

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$58,067,439	$604,879 53
More than one and not more than three years to run	172,008,631	1,450,404 88
More than three years to run	45,353,578	556,691 60
Net amount in force December 31, 1911	$275,429,648	$2,611,976 01

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$50,000 00
Losses incurred during the year: Fire	695,938 95
Amount loaned to officers and directors	80,800 00
Amount loaned to stockholders not officers	43,775 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$786,986 00
Less	92,170 00
Net risks written	694,816 00
Gross premiums received	15,316 75
Less	2,134 77
Net premiums received	13,181 98

THE NASSAU FIRE INSURANCE COMPANY.

Brooklyn, N. Y.

(Incorporated January 31, 1852. Commenced business in California March 8, 1905.)

William Harkness, President. Chas. E. DeGraft, Secretary.

Agent for service in California: Associated Underwriters, Inc., San Francisco, Cal.

CAPITAL.

Capital stock paid in cash	$200,000 00	
Amount of ledger assets December 31st of previous year		$733,398 52

INCOME.

	Fire.	
Gross premiums	$816,755 00	
Deduct gross amount paid for reinsurance, fire, $156,966.63; return premiums, fire, $155,575.49	312,542 12	
Total premiums (other than perpetuals)		$504,190 88
Interest on bonds and dividends on stocks	$30,149 16	
Interest from other sources	1,323 38	
Total interest and rents		31,472 54
Profit on sale or maturity of ledger assets		5,985 50
Total income		$541,648 92
Total		$1,275,047 44

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$434,862 96	
Deduct amount received for salvage, fire, $3,776.32; reinsurance, fire, $107,985.91; discount, fire, $411.24	112,173 47	
Net amount paid for losses		$322,689 49
Expenses of adjustment, settlement of losses		7,067 50
Commissions or brokerage		162,211 80
Salaries, fees and other charges of officers, directors, trustees, agents and employees		11,673 39
Rents, including company's occupancy of its own buildings		1,800 00
Advertising, printing and stationery		1,703 91
Postage, telegrams, telephone and express		1,347 00
Legal expenses		823 20
Furniture and fixtures		166 09
Underwriters' boards and tariff associations		2,614 55
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		2,234 88
Inspectors and surveys		582 54
State taxes on premiums		6,697 15
Insurance department licenses and fees		1,012 38
All other licenses, fees and taxes		1,291 05
Other disbursements		365 85
Interest and dividends to stockholders		20,000 00
Loss on sale or maturity of ledger assets		713 75
Total disbursements		$544,994 53
Balance		$730,052 91

LEDGER ASSETS.

Book value of bonds and stocks	$564,425 25
Cash in office	97 78
Deposits in trust companies and banks on interest	77,230 52
Agents' balances, representing business written subsequent to October 1st, last	88,299 38
Total ledger assets	$730,052 91

Non-Ledger Assets.

Interest due and accrued on bonds	$2,900 85
Market value of bonds and stocks over book value	106,911 77
Other non-ledger assets	980 34
Gross assets	$840,845 87

LIABILITIES.

Losses adjusted and unpaid, due and not due	$6,287 33	
Losses in process of adjustment, or in suspense	62,683 52	
Losses resisted	3,525 00	
Total claims for losses	$72,495 85	
Deduct reinsurance	14,100 28	
Net amount of unpaid losses		$58,395 57
Unearned premiums at 50 per cent on fire risks running one year or less	$187,816 93	
Unearned premiums pro rata on fire risks running more than one year	161,682 37	
Total unearned premiums as computed above		349,499 30
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		500 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		5,500 00
Total liabilities, except capital stock		$413,894 87
Cash capital	$200,000 00	
Surplus over all liabilities	226,951 00	
Surplus to policyholders		426,951 00
Total		$840,845 87

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$79,336,131	$851,991 05
Written or renewed in 1911	78,259,820	816,733 00
Excess of original premiums over amount received for reinsurance	----------	1,777 52
Totals	$157,595,951	$1,670,501 57
Deduct expirations and cancellations	78,034,987	820,370 35
In force December 31, 1911	$79,560,964	$850,131 22
Deduct amount reinsured	15,435,715	169,267 90
Net amount in force	$64,125,249	$680,863 32

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$20,000 00
Losses incurred during the year: Fire	314,519 83

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$882,188 00
Less	305,660 00
Net risks written	576,528 00
Gross premiums received	16,746 40
Less	4,687 75
Net premiums received	12,058 65
Net losses paid	2,585 66
Net losses incurred	2,594 12

NATIONAL FIRE INSURANCE COMPANY.

Hartford, Conn.

(Incorporated June 4, 1869. Commenced business in California August 5, 1884.)

James Nichols, President. B. R. Stillman, Secretary.

Agent for service in California: Wayman & Henry, San Francisco.

CAPITAL.

Capital stock paid in cash	$1,000,000 00	
Amount of ledger assets December 31st of previous year		$10,446,992 11

INCOME.

	Fire.	
Gross premiums	$11,951,055 25	
Deduct gross amount paid for reinsurance, fire, $2,494,103.55; return premiums, fire, $1,542,735.32	4,036,838 87	
Total premiums (other than perpetuals)		$7,914,316 38
Interest on mortgage loans	$82,004 28	
Interest on bonds and dividends on stocks	343,505 75	
Interest from other sources	10,322 63	
Rents, including company's occupancy of its own buildings	32,776 44	
Total interest and rents		468,609 10
Agents' balances previously charged off		418 61
Profit on sale or maturity of ledger assets		26,778 25
Total income		$8,410,022 34
Total		$18,857,014 45

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$5,109,085 90	
Deduct amount received for salvage, fire, $34,843.69; reinsurance, fire, $1,299,303.15	$1,334,146 84	
Net amount paid for losses		$3,774,939 06
Expenses of adjustment, settlement of losses		46,351 46
Commissions or brokerage		1,491,713 79
Allowances to local agencies for miscellaneous agency expenses		4,305 97
Salaries and expenses of special and general agents		784,360 40
Salaries, fees and other charges of officers, directors, trustees, agents and employees		174,155 03
Rents, including company's occupancy of its own buildings		37,468 59
Advertising, printing and stationery		75,470 95
Postage, telegrams, telephone and express		84,915 51
Legal expenses		9,608 10
Furniture and fixtures		8,511 78
Maps, including corrections		11,690 78
Underwriters' boards and tariff associations		118,071 16
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		50,849 53
Inspections and surveys		14,580 61
Repairs and expenses on real estate		13,502 50
Taxes on real estate		9,014 88
State taxes on premiums		153,520 47
Insurance department licenses and fees		26,284 21
All other licenses, fees and taxes		59,773 16
Traveling expenses		5,823 59
Miscellaneous expense: Reinsurance Columbia Fire Insurance Co.		160,130 23
Miscellaneous expense: Reinsurance Osage Fire Insurance Co.		13,524 73
Miscellaneous expense: Reinsurance Franklin Fire Insurance Co.		2,080 50
Factory Insurance Association, miscellaneous expense		8,309 00
Mercantile reports, $737.33; sundry office expenses, $5,856.27; other miscellaneous expenses, $824.31		7,417 91

Interest and dividends to stockholders		$200,000 00
Agents' balances charged off		2,100 87
Loss on sale or maturity of ledger assets		22,464 22
Total disbursements		$7,370,938 93
Balance		$11,486,075 52

LEDGER ASSETS.

Book value of real estate		$633,208 93
Mortgage loans on real estate		1,825,075 00
Book value of bonds and stocks		6,996,271 41
Cash in office		1,094 43
Deposits in trust companies and banks on interest		671,598 06
Agents' balances, representing business written subsequent to October 1st, last		1,129,868 61
Agents' balances, representing business written prior to October 1st, last		37,948 34
Bills receivable taken for fire risks		191,010 74
Total ledger assets		$11,486,075 52

Non-Ledger Assets.

Interest due and accrued on mortgages	$36,607 50	
Interest due and accrued on bonds	87,571 67	
Total		124,179 17
Market value of real estate over book value		14,481 76
Market value of bonds and stocks over book value		290,295 77
Gross assets		$11,915,032 22

Deduct Assets Not Admitted.

Agents' balances, representing business prior to October 1st, last	$37,948 34	
Bills receivable, past due, taken for marine, inland and fire risks	39,128 61	
Overdue and accrued interest on bonds in default	215 00	
Total		77,291 95
Total admitted assets		$11,837,740 27

LIABILITIES.

Losses adjusted and unpaid, due and not due	$124,027 97	
Losses in process of adjustment, or in suspense	653,023 69	
Losses resisted	47,642 78	
Total claims for losses	$824,694 44	
Deduct reinsurance	280,093 78	
Net amount of unpaid losses		$544,600 66
Unearned premiums at 50 per cent on fire risks running one year or less	$2,010,670 08	
Unearned premiums pro rata on fire risks running more than one year	5,202,193 47	
Total unearned premiums as computed above		7,212,863 55
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		150,000 00
Special reserve fund covering all contingent liabilities		300,000 00
Total liabilities, except capital stock		$8,207,464 21
Cash capital	$1,000,000 00	
Surplus over all liabilities	2,630,276 06	
Surplus to policyholders		3,630,276 06
Total		$11,837,740 27

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$1,308,942,592	$14,719,994 60
Written during the year	1,240,139,341	11,951,055 25
Excess of original premiums over amount received for reinsurance		1,274,577 28
Totals	$2,549,081,933	$27,945,627 13
Expired and terminated	970,767,686	10,759,334 95
In force at end of the year	$1,578,314,247	$17,186,292 18
Deduct amount reinsured	299,526 78	3,184,320 07
Net amount in force	$1,278,787,467	$14,001,972 11

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$365,257,836	$4,021,340 15
More than one and not more than three years to run	572,653,107	5,572,654 71
More than three years to run	340,876,524	4,407,977 25
Net amount in force December 31, 1911	$1,278,787,467	$14,001,972 11

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$150,000 00
Losses incurred during the year: Fire	3,673,472 32

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$43,238,170 00
Less	11,823,903 00
Net risks written	31,414,267
Gross premiums received	654,369 29
Less	130,954 93
Net premiums received	523,414 36
Net losses paid	100,946 05
Net losses incurred	106,389 53

NATIONAL UNION FIRE INSURANCE COMPANY.

Pittsburg, Pa.

(Incorporated February 14, 1901. Commenced business in California March 1, 1901.)

E. E. Cole, President. B. D. Cole, Secretary.

Agent for service in California: F. H. Rhoades, San Francisco.

CAPITAL.

Capital stock paid in cash	$1,000,000 00	
Amount of ledger assets December 31st of previous year		$3,300,772 83
Increase of paid-up capital during year		100,000 00
Extended at		$3,400,772 83

INCOME.

	Fire.	
Gross premiums	$3,705,243 52	
Deduct gross amount paid for reinsurance, fire, $976,157.58; return premiums, fire, $656,485.11; marine and inland	1,632,642 69	
Total premiums (other than perpetuals)		$2,072,600 83

Interest on mortgage loans	$36,919 64	
Interest on collateral loans	6,416 65	
Interest on bonds and dividends on stocks	76,307 80	
Interest from other sources	8,247 17	
Rents, including company's occupancy of its own buildings	100 00	
Total interests and rents		$127,991 26
From other sources: Premium on increase in cash capital		60,000 00
Profit on sale of company stock held by trustees to secure payment of an agency indebtedness		536 59
Increase in liabilities during the year on account of reinsurance treaties		106,650 86
Agents' balances previously charged off		2,469 48
Profit on sale or maturity of ledger assets		10,723 12
Total income		$2,381,264 38
Total		$5,782,037 21

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$1,474,458 97	
Deduct amount received for salvage, fire, $6,864.04; reinsurance, fire, $476,523.04; discount, fire, $1,532.36	484,919 44	
Net amount paid for losses		$989,539 53
Expenses of adjustment, settlement of losses		28,903 65
Commissions or brokerage		363,260 21
Allowances to local agencies for miscellaneous agency expenses		10,688 90
Salaries and expenses of special and general agents		135,619 14
Salaries, fees and other charges of officers, directors, trustees, agents and employees		98,087 73
Rents, including company's occupancy of its own buildings		12,100 00
Advertising, printing and stationery		25,560 77
Postage, telegrams, telephone and express		12,780 08
Legal expenses		523 33
Furniture and fixtures		1,440 96
Maps, including corrections		8,366 79
Underwriters' boards and tariff associations		24,614 19
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		8,204 40
Inspections and surveys		4,102 70
Repairs and expenses on real estate		20 08
Taxes on real estate		111 65
State taxes on premiums		50,394 04
Insurance department licenses and fees		18,069 50
All other licenses, fees and taxes		12,014 12
Interest and dividends to stockholders		85,500 00
Agents' balances charged off		1,220 64
Loss on sale or maturity of ledger assets		5,018 17
Total disbursements		$1,896,140 58
Balance		$3,885,896 63

LEDGER ASSETS.

Book value of real estate	$4,501 76
Mortgage loans on real estate	664,540 00
Loans secured by pledge of bonds, stocks or other collaterals	115,000 00
Book value of bonds and stocks	2,234,689 54
Cash in offices	9,311 66
Deposits in trust companies and banks not on interest	68,602 69
Deposits in trust companies and banks on interest	234,260 11
Agents' balances, representing business written subsequent to October 1st, last	477,385 80

Amount brought forward		$3,878,191 56
Agents' balances, representing business written prior to October 1st, last		4,616 28
Bills receivable taken for fire risks		72,988 79
Total ledger assets		$3,885,896 63

Non-Ledger Assets.

Interest due and accrued on mortgages	$13,053 25	
Interest due and accrued on bonds	31,223 94	
Interest due and accrued on collateral loans	1,405 36	
Total		45,682 55
Market value of bonds and stocks over book value		3,785 29
Gross assets		$3,935,364 47

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$4,616 28	
Bills receivable, past due, taken for marine, inland and fire risks	15,127 31	
Overdue and accrued interest on bonds in default	3,750 00	
Total		23,493 59
Total admitted assets		$3,911,870 88

LIABILITIES.

Losses adjusted and unpaid, due and not due	$16,729 92	
Losses in process of adjustment, or in suspense	172,130 54	
Losses resisted	39,048 28	
Total claims for losses	$227,908 74	
Deduct reinsurance	78,101 19	
Net amount of unpaid losses		$149,807 55
Unearned premiums at 50 per cent on fire risks running one year or less	$539,867 81	
Unearned premiums pro rata on fire risks running more than one year	1,522,944 12	
Total unearned premiums as computed above		2,062,811 93
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued (none, all paid) to cover any contingency		500 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		60,000 00
Fund held under reinsurance treaty		106,655,86
Total liabilities, except capital stock		$2,379,775 34
Cash capital	$1,000,000 00	
Surplus over all liabilities	532,095 54	
Surplus to policyholders		1,532,095 54
Total		$3,911,870 88

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$346,152,656	$4,186,357 07
Written during the year	297,640,983	3,705,243 52
Excess of original premiums over amount received for reinsurance	----------	753 43
Totals	$643,793,639	$7,892,354 02
Expired and terminated	238,709,826	2,975,059 00
In force at end of the year	$405,083,813	$4,917,295 02
Deduct amount reinsured	92,031,220	1,133,007 14
Net amount in force	$313,052,593	$3,784,287 88

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$50,000 00
Losses incurred during the year: Fire	994,465 54

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$31,805,196 00
Less	5,919,209 00
Net risks written	25,885,987 00
Gross premiums received	538,920 20
Less	115,506 24
Net premiums received	423,413 96
Net losses paid	100,078 17
Net losses incurred	107,392 48

NATIONAL LUMBER INSURANCE COMPANY.

Buffalo, N. Y.

(Incorporated November 25, 1905. Commenced business in California July 1, 1911.)

MORRIS S. TREMAINE, President. WILLIAM P. HAINES, Secretary.

Agent for service in California: ASSOCIATED UNDERWRITERS, INC., San Francisco.

CAPITAL.

Capital stock paid in cash	$200,000 00	
Amount of ledger assets December 31st of previous year		$400,381 37

INCOME.

	Fire.	
Gross premiums	$359,324 82	
Deduct gross amount paid for reinsurance, fire, $26,374,17; return premiums, fire, $99,320.75	125,695 92	
Total premiums (other than perpetuals)		$233,629 90
Interest on bonds and dividends on stocks	$8,285 25	
Interest from other sources	3,191 60	
Total interest		11,476 85
From other sources: Brokerage, $6.58; Commission account purchase 10,000 Ontario Power Company bonds, $50.00		56 58
Agents' balances previously charged off		6 13
Profit on sale or maturity of ledger assets		964 95
Total income		$246,134 41
Total		$646,515 78

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$137,258 21	
Deduct amount received for salvage, $2,119.20; reinsurance, $6,614.80; discount, fire, $202.52	8,936 52	
Net amount paid for losses		$128,321 69
Expenses of adjustment, settlement of losses		1,456 35
Commissions or brokerage		52,267 09
Allowances to local agencies for miscellaneous agency expenses		4,120 25
Salaries and expenses of special and general agents		5,676 18
Salaries, fees and other charges of officers, directors, trustees, agents and employees		15,650 52
Rents, including company's occupancy of its own buildings		1,340 01
Advertising, printing and stationery		1,331 35

Amount brought forward	$210.163 44
Postage, telegrams, telephone and express	872 02
Legal expenses	2,517 09
Furniture and fixtures	395 45
Maps, including corrections	80 00
Underwriters' boards and tariff associations	1,881 65
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses	1,038 73
Inspections and surveys	663 79
State taxes on premiums	4,253 23
Insurance department licenses and fees	1,181 87
All other licenses, fees and taxes	1,885 84
General expenses home office	1,401 68
Decrease in liabilities during the year on account of reinsurance treaties	338 78
Agents' balances charged off	263 89
Loss on sale or maturity of ledger assets	6 25
Total disbursements	$226,915 71
Balance	$419,600 07

LEDGER ASSETS.

Book value of bonds and stocks	$257,179 90
Cash in office	3 12
Deposits in trust companies and banks not on interest	185 37
Deposits in trust companies and banks on interest	115,327 67
Agents' balances, representing business written subsequent to October 1st, last	46,191 88
Agents' balances, representing business written prior to October 1st, last	607 02
Reinsured losses and adjustments	105 11
Total ledger assets	$419,600 07

Non-Ledger Assets.

Interest due and accrued on bonds	$2,127 71	
Interest due and accrued on other assets	987 17	
Total		3,114 88
Gross assets		$422,714 95

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$607 02	
Book value of ledger assets over market value	21,439 90	
Total		22,046 92
Total admitted assets		$400,668 03

LIABILITIES.

Losses adjusted and unpaid, due and not due	$5,598 50	
Losses in process of adjustment, or in suspense	2,859 54	
Total claims for losses	$21,481 95	
Deduct reinsurance	5,184 71	
Net amount of unpaid losses		$16,297 24
Unearned premiums at 50 per cent on fire risks running one year or less	$107,711 00	
Unearned premiums pro rata on fire risks running more than one year	15,641 79	
Total unearned premiums as computed above		123,352 79

Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		$131 33
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		3,925 00
Commissions, brokerage and other charges due or to become due to agents and brokers		375 65
Reinsurance premiums		1,075 59
Total liabilities, except capital stock		$145,157 60
Cash capital	$200,000 00	
Surplus over all liabilities	55,510 43	
Surplus to policyholders		255,510 43
Total		$400,668 03

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$22,832,397 14	$274,296 21
Written during the year	28,809,599 00	359,324 82
Totals	$51,641,996 14	$633,621 03
Expired and terminated	30,524,415 00	370,189 41
In force at end of the year	$21,117,581 14	$263,431 62
Deduct amount reinsured	1,640,166 00	25,380 92
Net amount in force	$19,477,415 14	$238,050 70

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$18,083,149 14	$215,422 00
More than one and not more than three years to run	1,210,652 00	20,303 02
More than three years to run	183,614 00	2,325 68
Net amount in force December 31, 1911	$19,477,415 14	$238,050 70

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$20,000 00
Losses incurred during the year: Fire	118,833 34

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$797,002 00
Less	202,126 00
Net risks written	594,876 00
Gross premiums received	15,484 51
Less	3,334 79
Net premiums received	12,149 72
Net losses paid	23 14
Net losses incurred	42 75

NEW BRUNSWICK FIRE INSURANCE COMPANY.

New Brunswick, N. J.

(Incorporated Dec. 27, 1826. Commenced business in California Jan. 10, 1906.)

GEORGE A. VIEHMANN, President. CHAS. D. ROSS, Secretary.

Agent for service in California: ASSOCIATED UNDERWRITERS, Inc., San Francisco.

CAPITAL.

Capital stock paid in cash	$200,000 00	
Amount of ledger assets December 31st of previous year		$671,659 11

INCOME.

	Fire.	
Gross premiums	$709,415 91	
Deduct gross amount paid for reinsurance, fire, $71,623.47; return premiums, fire, $157,656.68	229,280 15	
Total premiums (other than perpetuals)		$480,135 76
Interest on mortgage loans	$7,765 11	
Interest on bonds and dividends on stocks	14,751 69	
Interest from other sources	217 34	
Rents, including company's occupancy of its own buildings	13,682 50	
Total interest and rents		36,416 64
Profit on sale or maturity of ledger assets		37 50
Total income		$516,589 90
Total		$1,188,249 01

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$259,946 70	
Deduct amount received for salvage, fire, $1,981.28; reinsurance, fire, $23,977.05; discount, fire, $356.82	26,315 15	
Net amount paid for losses		$233,631 55
Expenses of adjustment, settlement of losses		6,294 27
Commissions or brokerage		110,946 78
Salaries and expenses of special and general agents		33,963 61
Salaries, fees and other charges of officers, directors, trustees, agents and employees		25,905 43
Rents, including company's occupancy of its own buildings		2,500 00
Advertising, printing and stationery		5,296 14
Postage, telegrams, telephone and express		3,212 39
Legal expenses		10 00
Furniture and fixtures		424 93
Maps, including corrections		1,062 46
Underwriters' boards and tariff associations		2,872 85
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		4,004 93
Inspections and surveys		2,541 93
Repairs and expenses on real estate		4,720 45
Taxes on real estate		1,672 00
State taxes on premiums		5,448 35
Insurance department licenses and fees		5,114 90
All other licenses, fees and taxes		3,329 56
Miscellaneous expense, ice, water, etc.		163 67
Interest and dividends to stockholders		22,014 13
Total disbursements		$475,130 33
Balance		$713,130 68

LEDGER ASSETS.

Book value of real estate	$132,362 00
Mortgage loans on real estate	161,186 00
Book value of bonds and stocks	327,022 47
Cash in office	3,311 95
Deposit in trust companies and banks on interest	18,441 42
Agents' balances, representing business written subsequent to October 1st, last	70,465 40
Agents' balances, representing business written prior to October 1st, last	229 44
Deposited with Philadelphia Underwriters	100 00
Total ledger assets	$713,118 68

Non-Ledger Assets.

Interest due and accrued on mortgages	$1,242 61	
Interest due and accrued on bonds	1,662 31	
Rents due and accrued on company's property	286 50	
Total		$3,191 42
Market value of bonds and stocks over book value		19,826 53
Gross assets		$736,136 63

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$229 44	
One mortgage not considered good	447 00	
Total		676 44
Total admitted assets		$735,460 19

LIABILITIES.

Losses in process of adjustment, or in suspense	$30,623 00	
Deduct reinsurance	1,890 04	
Net amount of unpaid losses		$28,732 96
Unearned premiums at 50 per cent on fire risks running one year or less	$164,634 30	
Unearned premiums pro rata on fire risks running more than one year	214,196 54	
Total unearned premiums as computed above		378,830 84
Dividends declared and unpaid, to stockholders		42 97
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		5,000 00
Total liabilities except capital		$412,606 77
Cash capital	$200,000 00	
Surplus over all liabilities	122,853 42	
Surplus to policyholders		322,853 42
Total		$735,460 19

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$58,753,979	$758,598 93
Written during the year	54,984,022	709,415 91
Excess of original premiums over amount received for reinsurance	----------	3,492 39
Totals	$113,738,001	$1,471,507 23
Expired and terminated	50,126,508	636,648 38
In force at end of the year	$63,611,493	$834,858 85
Deduct amount reinsured	7,129,033	100,386 80
Net amount in force	$56,482,460	$734,472 05

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$25,844,525	$329,268 60
More than one and not more than three years to run	27,253,130	352,080 03
More than three years to run	3,384,805	53,123 42
Net amount in force December 31, 1911	$56,482,460	$734,472 05

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$20,000 00
Losses incurred during the year: Fire	235,178 75

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$5,040,013 00
Less	1,552,528 00
Net risks written	3,487,485 00
Gross premiums received	97,721 89
Less	26,488 93
Net premiums received	71,232 96
Net losses paid	9,343 35
Net losses incurred	9,264 35

NEW JERSEY FIRE INSURANCE COMPANY.

Newark, N. J.

(Incorporated December 21st, 1910. Commenced business in California 1911.)

William G. Whilden, President. George E. Lyon, Secretary.

Agent for service in California: E. D. Silent & Co., Los Angeles.

CAPITAL.

Capital stock paid in cash	$200,000 00	
Increase of paid-up capital during year		$200,000 00
Surplus paid in by stockholders		296,000 00
Extended at		$696,000 00

INCOME.

	Fire.	
Gross premiums	$338,130 61	
Deduct gross amount paid for reinsurance, fire, $34,584.69; return premiums, fire, $34,880.07; marine and inland	69,464 76	
Total premiums (other than perpetuals)		$268,665 85
Interest on mortgage loans	$1,475 33	
Interest on bonds and dividends on stocks	7,682 20	
Interest from other sources	3,412 51	
		12,570 04
Total income		$281,235 89
Total		$977,235 89

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$20,896 69	
Deduct amount received for salvage, fire, $14.82; reinsurance, fire, $2,576 84	2,591 66	
Net amount paid for losses		$18,305 03
Expenses of adjustment, settlement of losses		445 74
Commissions or brokerage		80,250 43
Salaries and expense of special and general agents		2,465 12
Salaries, fees and other charges of officers, directors, trustees, agents and employees		18,980 95
Rents, including company's occupancy of its own buildings		865 08
Advertising, printing and stationery		6,956 65
Postage, telegrams, telephone and express		1,445 82
Legal expenses		301 97
Furniture and fixtures		2,984 92
Maps, including corrections		1,870 99
Underwriters' boards and tariff associations		341 01

Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses	$232 32
Inspections and surveys	191 61
Repairs and expenses on real estate	80 03
Taxes on real estate	9 74
Insurance department licenses and fees	3,031 36
Other disbursements: Loss and adjustment paid twice (since recovered)	24 26
Total disbursements	$138,783 03
Balance	$838,452 86

LEDGER ASSETS.

Book value of real estate	$80,042 50
Mortgage loans on real estate	147,400 00
Book value of bonds and stocks	440,955 17
Cash in office	10,046 47
Deposits in trust companies and banks on interest	61,609 92
Agents' balances, representing business written subsequent to October 1st, last	96,561 64
Agents' balances, representing business written prior to October 1st, last	1,334 48
Balance interest accrued on bonds purchased	502 68
Total ledger assets	$838,452 86

Non-Ledger Assets.

Interest due and accrued on mortgages	$1,432 21	
Interest due and accrued on bonds	2,434 59	
Rents due and accrued on company's property	52 00	
Total		3,918 80
Supplies		2,687 10
Furniture and fixtures, $2,984; maps, $1,870.99		4,855 91
Gross assets		$849,914 67

Deduct Assets Not Admitted.

Supplies, printed matter and stationery	$2,687 10	
Furniture, fixtures and safes	2,984 92	
Agents' balances, representing business written prior to October 1st, last	1,334 48	
Maps	1,870 99	
Total		8,877 49
Total admitted assets		$841,037 18

LIABILITIES.

Losses adjusted and unpaid, due and not due	$858 97	
Losses in process of adjustment, or in suspense	15,350 00	
Total claims for losses	$16,208 97	
Deduct reinsurance	1,510 00	
Net amount of unpaid losses		$14,698 97
Unearned premiums at 50 per cent on fire risks running one year or less	$80,256 36	
Unearned premiums pro rata on fire risks running more than one year	75,674 58	
Total unearned premiums as computed above		155,930 94
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		4,221 18
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement, and other contingencies		15,000 00
Return premiums		182 23
Total liabilities, except capital stock		$190,033 32

Total liabilities, except capital stock		$190,033 32
Cash capital	$400,000 00	
Surplus over all liabilities	251,003 86	
Surplus to policyholders		651,003 86
Total		$841,037 18

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
Written during the year	$35,475,454	$338,130 61
Excess of original premiums over amount received for reinsurance		59,577 14
Totals	$35,475,454	$397,707 75
Expired and terminated	9,408,950	94,667 73
In force at end of the year	$26,066,504	$303,040 22
Deduct amount reinsured	3,253,404	34,070 27
Net amount in force	$22,813,100	$268,969 95

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$12,566,264	$160,512 71
More than one and not more than three years to run	9,428,615	96,641 82
More than three years to run	818,221	11,815 42
Net amount in force December 31, 1911	$22,813,100	$268,969 95

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$30,000 00
Losses incurred during the year: Fire	33,004 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$763,515 00
Less	264,580 00
Net risks written	498,935 00
Gross premiums received	12,796 90
Less	4,459 01
Net premiums received	8,337 89
Net losses paid	1,009 52
Net losses incurred	1,009 52

NEW YORK RECIPROCAL UNDERWRITERS.

New York, N. Y.

(Formed, 1891. Commenced business in California, 1911.)

Attorney in fact: John R. Waters, New York.

Agent for service in California: Insurance Commissioner, San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year	$1,501,931 98

INCOME.

	Fire.	
Gross premiums	$618,698 24	
Deduct gross amount paid for return premiums, fire	16,583 63	
Total premiums (other than perpetuals)		$602,114 61

Interest on bonds and dividends on stocks	$11,244 96	
Interest from other sources	34,310 86	
Total interest and rents		$45,555 82
Increase in book value of ledger assets		1,418 75
Total income		$2,151,021 16

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$23,227 02	
Deduct amount received for salvage, fire	35 79	
Net amount paid for losses		$23,191 23
Expenses of adjustment, settlement of losses		487 91
Commissions or brokerage		92,804 74
Legal expenses		5,603 22
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		3,723 97
State taxes on premiums		1,818 93
Insurance department licenses and fees		352 52
Other disbursements		2,491 86
Interest and dividends to subscribers		322,037 92
Decrease in book value of ledger assets		1,375 63
Total disbursements		$453,887 93
Balance		$1,697,133 23

LEDGER ASSETS.

Book value of bonds and stocks		$286,112 50
Deposits in trust companies and banks not on interest		6,863 68
Deposits in trust companies and banks on interest		1,390,498 86
Premiums in course of collection		13,658 19
Total ledger assets		$1,697,133 23

Non-Ledger Assets.

Interest due and accrued on bonds	$1,513 14	
Interest due and accrued on other assets	700 00	
Total		2,213 14
Total admitted assets		$1,699,346 37

LIABILITIES.

Losses in process of adjustment, or in suspense	$400 00
Unearned premiums	259,269 49
Dividends declared and unpaid to subscribers	294,169 79
Contingent reserve	5,000 00
Total liabilities, except capital	$558,839 28
Surplus over all liabilities	1,140,507 09
Total	$1,699,346 37

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$102,718,471	$475,210 44
Written during the year	135,397,494	618,698 24
Totals	$238,115,965	$1,093,908 68
Expired and terminated	118,431,820	575,369 70
Net amount in force	$119,684,145	$518,538 98

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$731,000 00
Losses incurred during the year: Fire	23,291 19

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$6,584,300 00
Less	60,000 00
Net risks written	6,524,300 00
Gross premiums received	32,760 59
Less	516 33
Net premiums received	32,244 26

UNITED STATES BRANCH OF THE NEW ZEALAND INSURANCE COMPANY, LIMITED.

Auckland, New Zealand.

(Incorporated May 1, 1859. Commenced business in California March 27, 1875.)

Clinton Folger, United States Manager and Attorney in Fact.

Agent for service in California: Clinton Folger, San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year	$750,033 99

INCOME.

	Fire.	
Gross premiums	$665,773 47	
Deduct gross amount paid for reinsurance, fire, $28,177.49; return premiums, fire, $111,711.99	139,889 48	
Total premiums (other than perpetuals)		$525,883 99
Interest on bonds and dividends on stocks	$16,397 49	
Rents, including company's occupancy of its own buildings	12,580 00	
Total interest and rents		28,977 49
Receipts from head office		63.234 52
Total income		$618.096 00
Total		$1,372,129 99

DISBURSEMENTS.

	Fire.	Marine and inland.	
Gross amount paid for losses	$165,442 11	$1,949 14	
Deduct amount received for salvage, fire, $175.08; marine and inland, $200; reinsurance, fire, $9,397.34; marine and inland, $128.37	9,572 42	328 37	
Net amount paid for losses	$155,869 69	$1,620 77	$157.490 46
Expenses of adjustment, settlement of losses			5.564 25
Commissions or brokerage			88,919 96
Allowances to local agencies for miscellaneous agency expenses			34 10
Salaries and expenses of special and general agents			20,895 86
Salaries, fees and other charges of officers, directors, trustees, agents and employees			38.433 54
Rents, including company's occupancy of its own buildings			4.200 00
Advertising, printing and stationery			3,921 09
Postage, telegrams, telephone and express			11.366 13
Furniture and fixtures			255 50
Maps, including corrections			1.740 10
Underwriters' boards and tariff associations			7,910 35

Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses	$1,831 49
Inspections and surveys	1,222 60
Repairs and expenses on real estate	3,928 81
Taxes on real estate	1,865 48
State taxes on premiums	6,989 28
Insurance department licenses and fees	1,999 05
All other licenses, fees and taxes	1,185 46
State, county and municipal license fees, etc	632 09
Remitted to head office	205,024 36
Agents' balances charged off	340 21
Decrease in book value of ledger assets	11,875 01
Total disbursements	$577,625 18
Balance	$794,504 81

LEDGER ASSETS.

Book value of real estate	$226,863 00
Book value of bonds and stocks	470,637 00
Deposits in trust companies and banks not on interest	19,876 78
Agents' balances, representing business written subsequent to October 1st, last	100,311 94
Agents' balances, representing business written prior to October 1st, last	759 12
Bills receivable taken for fire risks	159 80
Total	$818,607 64
Ledger liabilities, agents' credit balances, $45.46; unpaid reinsurance, premiums, $5,912.28; commissions on uncollected premiums, $18,145.09	24,102 83
Total ledger assets	$794,504 81

Non-Ledger Assets.

Interest due and accrued on bonds	6,292 68
Market value of real estate over book value	13,137 00
Gross assets	$813,934 49

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	759 12
Total admitted assets	$813,175 37

LIABILITIES.

Losses in process of adjustment, or in suspense	$19,860 31	
Deduct reinsurance	77	
Net amount of unpaid losses		$19,859 54
Unearned premiums at 50 per cent on fire risks running one year or less	$182,213 11	
Unearned premiums pro rata on fire risks running more than one year	224,543 88	
Total unearned premiums as computed above		406,756 99
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		10,276 17
Return premiums		7,125 41
Rents paid in advance		75 00
Book value of bonds over market value		1,645 20
Total liabilities except capital		$445,738 31
Surplus to policyholders		367,437 06
Total		$813,175 37

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$45,557,823	$759,395 16
Written during the year	39,165,879	665,773 47
Totals	$84,723,702	$1,425,168 63
Expired and terminated	34,927,767	618,612 86
In force at end of the year	$49,795,935	$806,555 77
Deduct amount reinsured	1,863,113	32,413 58
Net amount in force	$47,932,822	$774,142 19

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$20,862,297	$364,426 23
More than one and not more than three years to run	26,640,888	398,662 22
More than three years to run	429,637	11,053 74
Net amount in force December 31, 1911	$47,932,822	$774,142 19

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$50,600 00
Losses incurred during the year: Fire	168,327 79

BUSINESS IN CALIFORNIA DURING 1910.

	Fire.
Gross risks written	$23,815,645 00
Less	5,790,876 00
Net risks written	18,024,769 00
Gross premiums received	396,482 73
Less	77,633 19
Net premiums received	318,849 54
Net losses paid	75,364 32
Net losses incurred	83,315 32
Home office statement shows—	
Capital (paid up)	$1,500,000 00
Assets	4,980,399 00
Liabilities	1,933,908 00

NIAGARA FIRE INSURANCE COMPANY.

New York, N. Y.

(Incorporated July, 1850. Commenced business in California, October 18, 1878.)

HAROLD HERRICK, President. GEO. W. DEWEY, Secretary.

Agent for service in California: EDWIN PARRISH, San Francisco, Cal.

CAPITAL.

Capital stock paid in cash	$1,000,000 00	
Amount of ledger assets December 31st of previous year		$6,038,799 28

INCOME.

	Fire.	
Gross premiums	$4,562,784 97	
Deduct gross amount paid for reinsurance, fire, $666,806.76; return premiums, fire, $669,278.35	4,336,085 11	
Total premiums (other than perpetuals)		$3,226,699 86
Interest on mortgage loans	$33,710 83	
Interest on bonds and dividends on stocks	234,093 71	
Interest from other sources	4,482 67	
Total interest and rents		272,287 21

Agents' balances previously charged off	$1,518 84
Profit on sale or maturity of ledger assets	14,018 33
Total income	$3,514,524 24
Total	$9,553,323 52

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$2,003,487 82	
Deduct amount received for salvage, fire, $11,517.71; reinsurance, fire, $347,450.40; discount, fire, $209.71	359,177 82	
Net amount paid for losses		$1,644,310 00
Expenses of adjustment, settlement of losses		37,883 17
Commissions or brokerage		612,581 31
Allowances to local agencies for miscellaneous agency expenses		922 99
Salaries and expenses of special and general agents		119,623 88
Salaries, fees and other charges of officers, directors, trustees agents and employees		181,649 17
Rents, including company's occupancy of its own buildings		37,821 28
Advertising, printing and stationery		33,375 50
Postage, telegrams, telephone and express		25,527 45
Legal expenses		4,127 65
Furniture and fixtures		4,597 93
Maps, including corrections		12,054 67
Underwriters' boards and tariff associations		27,506 28
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		13,298 84
Inspections and surveys		19,378 81
State taxes on premiums		68,804 22
Insurance department licenses and fees		13,579 04
All other licenses, fees and taxes		11,901 52
Incidentals		4,419 52
Exchange		3,705 32
Commercial reports		2,414 37
Office expenses		6,549 50
Subscriptions (papers and periodicals)		1,366 97
Interest and dividends to stockholders		200,000 00
Agents' balances charged off		292 67
Loss on sale or maturity of ledger assets		13,856 37
Total disbursements		$3,101,548 43
Balance		$6,451,775 09

LEDGER ASSETS.

Mortgage loans on real estate	$682,000 00
Book value of bonds and stocks	3,877,419 36
Cash in office	1,176 31
Deposit in trust companies and banks not on interest	398,442 90
Deposits in trust companies and banks on interest	943,089 31
Agents' balances, representing business written subsequent to October 1st, last	543,526 78
Agents' balances, representing business written prior to October 1st, last	6,120 43
Total ledger assets	$6,451,775 09

Non-Ledger Assets.

Interest due and accrued on mortgages	$7,415 54	
Interest due and accrued on bonds	13,517 07	
Dividends on 1,000 shares Union Pacific common sold; extra dividend declared	2,500 00	
Dividends on 1,625 shares Chicago and Northwestern common sold; extra dividend declared	2,843 75	
Total		26,276 36

Amount brought forward		$6,478,051 45
Market value of bonds and stocks over book value		262,050 64
Other non-ledger assets: interest accrued on deposit Brooklyn Trust Company, $284.72; interest accrued on deposit Metropolitan Trust Company, $838.36; interest accrued on deposit New York Trust Company, $789.04; interest accrued on deposit United States and Trust Company, $106.80; interest accrued on deposit Hudson Trust Company, $191.67		2,210 59
Gross assets		$6,742,312 68

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last		*$6,120 43
Total admitted assets		$6,736,192 25

LIABILITIES.

Losses in process of adjustment, or in suspense	$287,931 15	
Losses resisted	28,198 50	
Total claims for losses	$316,129 65	
Deduct reinsurance	63,792 01	
Net amount of unpaid losses		$252,337 64
Unearned premium at 50 per cent on fire risks running one year or less	$1,016,737 78	
Unearned premiums pro rata on fire risks running more than one year	1,885,116 74	
Total unearned premiums as above computed		2,901,854 52
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		3,044 02
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		50,000 00
Commissions, brokerage and other charges due or to become due to agents and brokers		12,500 00
Reinsurance premiums		41,256 89
Total liabilities, except capital stock		$3,260,993 07
Cash capital	$1,000,000 00	
Surplus over all liabilities	2,475,199 18	
Surplus to policyholders		$3,475,199 18
Total		$6,736,192 25

Special reserve fund held under New York state law, $500,000.00

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$603,850,528	$6,179,542 88
Written during the year	419,381,358	4,562,784 94
Totals	$1,023,231,886	$10,742,327 85
Expired and terminated	284,402,322	4,195,958 33
In force at end of the year	$138,829,564	$6,546,369 52
Deduct amount reinsured	86,246,164	917,460 55
Net amount in force	$552,583,400	$5,628,908 97

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$150,000 00
Losses incurred during the year: Fire	1,575,468 02

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*Of this amount $1,445.56 was received to January 10th.

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$22,213,130 00
Less	7,970,545 00
Net risks written	14,242,585 00
Gross premiums received	375,618 18
Less	115,357 81
Net premiums received	260,266 37
Net losses paid	83,018 17
Net losses incurred	85,257 00

UNITED STATES BRANCH OF THE NORTH BRITISH AND MERCANTILE INSURANCE COMPANY.

London, England.

(Incorporated November, 1809. Commenced business in California Sept. 26, 1868.)

E. G. RICHARDS, Manager. H. M. JACKSON, Secretary.

J. F. HASTINGS, Assistant Manager.

Agent for service in California: JOHN McC. ANDERSON, San Francisco.

CAPITAL.

Capital stock paid in cash deposit, New York	$200,000 00	
Amount of ledger assets December 31st of previous year		$8,834,304 42

INCOME.

	Fire.	
Gross premiums	$7,770,309 30	
Deduct gross amount paid for reinsurance, fire, $1,158,935.36; return premiums, fire, $1,057,831.25	2,216,766 61	
Total premiums (other than perpetuals)		$5,553,542 69
Deposit premiums on perpetual risks		2,851 30
Interest on bonds and dividends on stocks	$304,576 87	
Interest from other sources	3,181 17	
Total interest		307,758 04
From other sources: Conscience fund		71 50
Agents' balances previously charged off		108 39
Profit on sale or maturity of ledger assets		123 52
Increase in book value of ledger assets		4,754 92
Total income		$5,869,210 36
Total		$14,703,514 78

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$3,030,256 82	
Deduct amount received for salvage, fire, $31,181.99; reinsurance, fire, $319,919.88	351,101 87	
Net amount paid for losses		$2,679,154 95
Expenses of adjustment, settlement of losses		46,619 27
Commissions or brokerage		1,220,121 69
Allowances to local agencies for miscellaneous agency expenses		18,353 75
Salaries and expenses of special and general agents		189,858 58
Salaries, fees and other charges of officers, directors, trustees, agents and employees		293,656 92
Rents, including company's occupancy of its own buildings		24,599 93
Advertising, printing and stationery		37,549 21

Postage, telegrams, telephone and express	$34,298 82
Legal expenses	2,296 50
Furniture and fixtures	22,340 25
Maps, including corrections	18,839 39
Underwriters' boards and tariff associations	66,806 76
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses	50,187 81
Inspections and surveys	15,215 86
State taxes on premiums	78,611 88
Insurance department licenses and fees	12,454 75
All other licenses, fees and taxes	18,544 20
Remitted to home office	310,334 09
Deposit premiums returned	702 00
Agents' balances charged off	3,007 86
Loss on sale or maturity of ledger assets	1,798 43
Total disbursements	$5,145,352 90
Balance	$9,558,161 88

LEDGER ASSETS.

Book value of bonds and stocks	$8,320,104 54
Cash in office	500 00
Deposits in trust companies and banks on interest	397,143 39
Agents' balances, representing business written subsequent to October 1st, last	817,135 47
Agents' balances, representing business written prior to October 1st, last	20,261 74
Special deposits	3,016 74
Total ledger assets	$9,558,161 88

Non-Ledger Assets.

Interest due and accrued on bonds	91,321 06
Gross assets	$9,649,482 94

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$20,261 74	
Bills receivable, past due, taken for marine, inland and fire risks, Western Department suspense, etc.	35 74	
Book value of ledger assets over market value	493,763 21	
Total		514,060 69
Total admitted assets		$9,135,422 25

LIABILITIES.

Losses adjusted and unpaid, due and not due	$83.494 58	
Losses in process of adjustment, or in suspense	414,013 51	
Losses resisted	54,748 50	
Total claims for losses	$556,256 59	
Deduct reinsurance	77,019 05	
Net amount of unpaid losses		$479,237 54
Unearned premiums at 50 per cent on fire risks running one year or less	$1,759,842 49	
Unearned premiums pro rata on fire risks running more than one year	3,008,119 48	
Total unearned premiums as computed above		4,767,961 97
Amount reclaimable by the insured on perpetual fire insurance policies		35,852 17

Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement	$125,000 00
All other liabilities	12,000 00
Total liabilities, except capital stock	$5,420,051 68
Surplus to policyholders	3,715,370 57
Total	$9,135,422 25

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force on the 31st day of December, as per line 5, under this heading, in last year's statement	$1,010,409,195	$9,073,796 34
Written or renewed during the year, per Income No. 5	1,003,773,140	7,770,309 30
Excess of original premiums over amount received for reinsurance		795,999 25
Total	$2,014,182,335	$17,640,104 89
Deduct those expired and marked off as terminated	841,863,827	7,045,508 85
In force at the end of the year	$1,172,318,508	$10,594,596 04
Deduct amount reinsured (schedule required)	188,801,905	1,275,222 84
Net amount in force	$983,516,603	$9,319,373 20

Perpetual risks not including above, $1,279,320; premiums on same, $37,739.13.

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$1,210,119 00
Losses incurred during the year: Fire	2,737,061 50

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$35,004,039 00
Less	8,222,664 00
Net risks written	26,781,375 00
Gross premiums received	467,698 74
Less	82,809 56
Net premiums received	384.889 18
Net losses paid	80,726 17
Net losses incurred	84,440 55
Home office statement shows—	
Capital (paid up)	$12,187,500 00
Assets	36,040,891 29
Liabilities	8,212,696 50

UNITED STATES BRANCH OF THE NORTHERN ASSURANCE COMPANY, LIMITED.

London, England.

Western Department, Chicago, Illinois.

(Incorporated, 1836. Commenced business in California, 1854.)

G. H. Lermit, Manager.

Agent for service in California: Frank L. Hunter, San Francisco.

CAPITAL.

Capital stock paid in cash	$1,500,000 00	
Amount of ledger assets December 31st of previous year		$5,312,691 42

INCOME.

	Fire.	
Gross premiums	$4,623,010 28	
Deduct gross amount paid for reinsurance, fire, $943,045.98; return premiums, fire, $741,104 83	$1,684,150 81	
Total premiums (other than perpetuals)		$2,938,859 47
Interest on bonds and dividends on stocks	$169,026 22	
Interest from other sources	4,032 44	
Rents, including company's occupancy of its own buildings	8,333 36	
Total interest and rents		181,392 02
From head office		344,217 62
Agents' balances previously charged off		30 00
Total income		$3,464,499 11
Total		$8,777,190 53

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$2,248,796 32	
Deduct amount received for salvage, fire, $19,732.95; reinsurance, fire, $552,703.27; discount, fire, $971.48	573,407 70	
Net amount paid for losses		$1,675,388 62
Expenses of adjustment, settlement of losses		33,168 75
Commissions or brokerage		455,465 51
Salaries and expenses of special and general agents		119,236 51
Salaries, fees and other charges of officers, directors, trustees, agents and employees		226,689 04
Rents, including company's occupancy of its own buildings		25,362 16
Advertising, printing and stationery		37,520 48
Postage, telegrams, telephone and express		23,949 96
Legal expenses		2,758 45
Furniture and fixtures		8,950 20
Maps, including corrections		11,083 80
Underwriters' boards and tariff associations		47,693 42
Fire department, fire patrol and salvage corps assessments, fees, taxes, and expenses		28,217 77
Inspections and surveys		20,199 61
Repairs and expenses on real estate		1,440 00
State taxes on premiums		55,909 51
Insurance department licenses and fees		16,357 51
All other licenses, fees and taxes		19,886 37
Books, papers, periodicals		1,313 67
Cleaning, heating and lighting		1,950 56
Collection and exchange fees		3,691 55
Traveling		5,323 81
Miscellaneous		6,659 30
Remitted to head office		562,378 31
Agents' balances charged off		1,523 30
Loss on sale or maturity of ledger assets		4,655 00
Total disbursements		$3,396,773 17
Balance		$5,380,417 36

LEDGER ASSETS.

Book value of real estate	$115,000 00
Book value of bonds and stocks	4,452,749 41
Cash in office	232 07
Deposits in trust companies and banks not on interest	1,000 47
Deposits in trust companies and banks on interest	237,866 97
Agents' balances, representing business written subsequent to October 1st, last	524,762 19

Agents' balances, representing business written prior to October 1st, last		$24,704 58
Bills receivable taken for fire risks		17,947 22
Balance of account Frankona Reinsurance Company		6,154 45
Total ledger assets		$5,380,417 36

Non-Ledger Assets.

Interest due and accrued on bonds		50,066 53
Market value of real estate over book value		60,000 00
Due for reinsurance on losses already paid		24,259 76
Commissions on unpaid reinsurance premiums		26,498 30
Gross assets		$5,541,241 95

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$24,704 58	
Bills receivable, past due, taken for marine, inland and fire risks	17,947 22	
Book value of ledger assets over market value	195,584 41	
Total		238,236 21
Total admitted assets		$5,303,005 74

LIABILITIES.

Losses adjusted and unpaid, and not due	$42,865 67	
Losses in process of adjustment, or in suspense	309,468 15	
Losses resisted	86,076 33	
Total claims for losses	$438,410 15	
Deduct reinsurance	106,183 95	
Net amount of unpaid losses		$332,226 20
Unearned premiums at 50 per cent on fire risks running one year or less	$955,251 02	
Unearned premiums pro rata on fire risks running more than one year	1,806,664 33	
Total unearned premiums as computed above		2,761,915 35
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		33,589 71
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		76,811 35
Reinsurance premiums		88,676 86
Total liabilities, except capital stock		$3,293,219 47
Statutory deposit	$200,000 00	
Surplus over all liabilities	1,809,786 27	
Surplus to policyholders		2,009,786 27
Total		$5,303,005 74

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force on the 31st day of December, as per line 5 under this heading in last year's statement	$578,521,218	$6,187,599 49
Written or renewed during the year, per Income No. 5	435,264,305	4,623,010 28
Totals	$1,013,785,523	$10,810,609 77
Deduct those expired and marked off as terminated	410,197,803	4,409,302 03
In force at the end of the year	$603,587,720	$6,401,307 74
Deduct amount reinsured (schedule required)	100,670,089	1,077,379 04
Net amount in force	$502,917,631	$5,323,928 70

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$28,385,812 56
Less	6,627,432 83
Net risks written	21,758,379 73
Gross premiums received	467,811 77
Less	79,689 71
Net premiums received	388,122 06
Net losses paid	113,345 79
Net losses incurred	120,880 19

NORTHERN INSURANCE COMPANY OF NEW YORK.

New York, N. Y.

(Incorporated October 22, 1897. Commenced business in California July 22, 1911.)

Leander N. Howell, President. James Marshall, Secretary.

Agent for service in California: Bertheau, Salsbach & Bertheau, San Francisco. Cal.

CAPITAL.

Capital stock paid in cash	$350,000 00	
Amount of ledger assets December 31st of previous year		$1,275.349 50

INCOME.

	Fire.	
Gross premiums	$863,249 63	
Deduct gross amount paid for reinsurance, fire, $69,337.99; return premiums, fire, $140,101.54	209,439 53	
Total premiums (other than perpetuals)		$653,810 10
Interest on mortgage loans	$2.994 37	
Interest on bonds and dividends on stocks	46.150 21	
Interest from other sources	504 69	
Total interest and rents		49.649 27
Increase in book value of ledger assets		1.375 00
Total income		$704.834 37
Total		$1,980.183 87

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$432.924 97	
Deduct amount received for salvage, fire, $11.903.67; reinsurance, fire, $53,274.71; discount, fire, $901.28	66.079 66	
Net amount paid for losses		$366.845 31
Expense of adjustment, settlement of losses		8.521 24
Commissions or brokerage		233.769 77
Salaries, fees and other charges of officers, directors, trustees, agents and employees		600 00
Rents, including company's occupancy of its own buildings		4.500 00
Advertising, printing and stationery		27 65
Legal expenses		29 02
Underwriters' boards and tariff associations		3.902 22
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		5.010 98
State taxes on premiums		14.272 94
Insurance department licenses and fees		3.156 93
City licenses		296 00

Audit	$350 00
Agents' bonds	243 37
Insurance Department examination	192 38
Safe deposit rental	55 00
Interest and dividends to stockholders	17,500 00
Loss on sale or maturity of ledger assets	869 75
Decrease in book value of ledger assets	76,971 25
Total disbursements	$737,113 81
Balance	$1,243,070 06

LEDGER ASSETS.

Mortgage loans on real estate	$108,000 00
Book value of bonds and stocks	1,001,325 00
Cash in office	2,009 52
Deposits in trust companies and banks not on interest	13,410 31
Deposits in trust companies and banks on interest	28,376 80
Agents' balances, representing business written subsequent to October 1st, last	89,814 23
Agents' balances, representing business written prior to October 1st, last	134 20
Total ledger assets	$1,243,070 06

Non-Ledger Assets.

Interest due and accrued on mortgages	$1,653 75	
Interest due and accrued on bonds	4,037 46	
Total		5,691 21
Market value of bonds and stocks over book value		8,112 50
Gross assets		$1,256,873 77

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	134 20
Total admitted assets	$1,256,739 57

LIABILITIES.

Losses in process of adjustment, or in suspense	$81,129 14	
Losses resisted	1,900 00	
Total claims for losses	$83,029 14	
Deduct reinsurance	10,148 97	
Net amount of unpaid losses		$72,880 17
Unearned premiums at 50 per cent on fire risks running one year or less	$216,222 13	
Unearned premiums pro rata on fire risks running more than one year	368,021 94	
Total unearned premiums as computed above		584,244 07
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		15,000 00
Reinsurance premiums		13,129 76
Total liabilities, except capital stock		$685,254 00
Cash capital	$350,000 00	
Surplus over all liabilities	221,485 57	
Surplus to policyholders		571,485 57
Total		$1,256,739 57

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$123,240,901	$1,212,676 39
Written during the year	86,863,911	863,249 63
Totals	$210,104,812	$2,075,926 02
Expired and terminated	79,313,263	805,714 27
In force at end of the year	$130,791,549	$1,270,211 75
Deduct amount reinsured	14,744,009	133,771 02
Net amount in force	$116,047,540	$1,136,440 73

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$40,160,834	$432,444 26
More than one and not more than three years to run	59,177,393	493,991 10
More than three years to run	16,709,313	210,005 37
Net amount in force December 31, 1911	$116,047,540	$1,136,440 73

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$35,000 00
Losses incurred during the year: Fire	364,371 48

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$565,090 00
Gross premiums received	9,649 13
Net losses paid	98 80

NORTHWESTERN NATIONAL INSURANCE COMPANY.

Milwaukee, Wis.

(Incorporated February 20, 1869. Commenced business in California, 1877.)

WILFORD M. PATTON, President. JOSEPH HUEBL, Secretary.

Agent for service in California: D. W. CLARK, Oakland.

CAPITAL.

Capital stock paid in cash	$1,000,000 00	
Amount of ledger assets December 31st of previous year		$5,908,827 75

INCOME.

	Fire.	
Gross premiums	$2,797,009 01	
Deduct gross amount paid for reinsurance, fire, $166,282.30; return premiums, fire, $258,648.29	424,930 59	
Total premiums (other than perpetuals)		$2,372,078 42
Interest on mortgage loans	$58,612 56	
Interest on bonds and dividends on stocks	170,371 72	
Interest from other sources	3,692 72	
Rents, including company's occupancy of its own buildings	8,396 00	
Total interest and rents		241,073 00
Total income		$2,613,151 42
Total		$8,521,979 17

DISBURSEMENTS.

	Fire.	Marine and inland.	
Gross amount paid for losses	$1,011,805 81	$96 03	
Deduct amount received for salvage, fire, $4,567.02; marine and inland, $12.66; reinsurance, fire, $63,631.69; discount, fire, $176.49	68,375 20	12 66	
Net amount paid for losses	$943,430 61	$83 37	$943,513 98
Expenses of adjustment, settlement of losses			41,150 01
Commissions or brokerage			599,896 01
Allowances to local agencies for miscellaneous agency expenses			123,021 27
Salaries and expenses of special and general agents			98,480 16
Salaries, fees and other charges of officers, directors, trustees, agents and employees			92,610 95
Rents, including company's occupancy of its own buildings			8,000 00
Advertising, printing and stationery			16,248 39
Postage, telegrams, telephone and express			21,957 78
Legal expenses			876 59
Furniture and fixtures			2,404 86
Maps, including corrections			4,575 21
Underwriters' boards and tariff associations			929 31
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses			14,763 23
Inspections and surveys			5,389 54
Repairs and expenses on real estate			4,426 04
Taxes on real estate			3,360 58
State taxes on premiums			53,939 81
Insurance department licenses and fees			20,863 82
All other licenses, fees and taxes			10,297 13
Subscriptions			146 34
Bradstreet Company			949 50
Recording mortgages			14 35
Publications			211 06
Western Insurance Bureau			601 94
Underwriters' Protective Association			200 00
Interest and dividends to stockholders			140,000 00
Agents' balances charged off			1,004 72
Loss on sale or maturity of ledger assets			128 34
Decrease in book value of ledger assets			1,000 00
Total disbursements			$2,210,960 92
Balance			$6,311,018 25

LEDGER ASSETS.

Book value of real estate	$176,050 23
Mortgage loans on real estate	1,237,000 00
Book value of bonds and stocks	4,338,190 68
Cash in office	43,592 15
Deposits in trust companies and banks on interest	202,511 47
Agents' balances, representing business written subsequent to October 1st, last	309,424 43
Agents' balances, representing business written prior to October 1st, last	3,514 95
Bills receivable taken for fire risks	734 34
Total ledger assets	$6,311,018 25

Total ledger assets		$6,311,018 25

Non-Ledger Assets.

Interest due and accrued on mortgages	$9,629 95	
Interest due and accrued on bonds	17,083 25	
Total		26,713 20
Gross assets		$6,337,731 45

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$3,514 95	
Bills receivable, past due, taken for marine, inland and fire risks	734 34	
Book value of ledger assets over market value: Bonds	139,687 33	
Total		143,936 62
Total admitted assets		$6,193,794 83

LIABILITIES.

Losses adjusted and unpaid, due and not due	$38,228 30	
Losses in process of adjustment, or in suspense	60,917 87	
Losses resisted	6,650 00	
Total claims for losses	$105,796 17	
Deduct reinsurance	7,702 43	
Net amount of unpaid losses		$98,093 74
Unearned premiums at 50 per cent on fire risks running one year or less	$411,070 00	
Unearned premiums pro rata on fire risks running more than one year	2,566,130 01	
Total unearned premiums as computed above		2,977,200 01
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		1,873 50
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		95,000 00
Commissions, brokerage and other charges due or to become due to agents and brokers		19,119 00
Conflagration reserve		500,000 00
Total liabilities, except capital stock		$3,691,286 25
Cash capital	$1,000,000 00	
Surplus over all liabilities	1,502,508 58	
Surplus to policyholders		2,502,508 58
Total		$6,193,794 83

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$630,647,260	$5,735,221 18
Written during the year	298,255,931	2,797,009 01
Totals	$928,903,191	$8,532,230 19
Expired and terminated	254,138,783	2,456,633 28
In force at end of the year	$674,764,408	$6,075,596 91
Deduct amount reinsured	36,939,163	338,782 83
Net amount in force	$637,825,245	$5,736,814 08

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$75,379,966	$822,140 00
More than one and not more than three years to run	396,508,732	3,212,850 08
More than three years to run	165,936,547	1,701,824 00
Net amount in force December 31, 1911	$637,825,245	$5,736,814 08

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$75.000 00
Losses incurred during the year: Fire, $870.383.73; tornado, $46,294.21	916,677 94

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$14,337,733 00
Less	2,129,632 00
Net risks written	12,208,101 00
Gross premiums received	176,934 85
Less	21.721 71
Net premiums received	155,213 14
Net losses paid	36.430 47
Net losses incurred	42,177 52

NORTHWESTERN MUTUAL FIRE ASSOCIATION.

Seattle, Wash.

(Incorporated April 6, 1901. Commenced business in California October 6, 1911.)

F. J. MARTIN, President. M. D. L. RHODES, Secretary.

Agent for service in California: A. H. ELLIOT, San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year	$266,949 16

INCOME.

	Fire.	
Gross premiums	$620,008 06	
Deduct gross amount paid for reinsurance, fire, $22.869.19; return premiums, fire, $118,172.26; error 1910, $380.14	141.421 59	
Total premiums (other than perpetuals)		$478,586 47
Interest on mortgage loans	$3,453 59	
Interest on bonds and dividends on stocks	3,727 82	
Interest from other sources	2,108 27	
Total interest and rents		9,289 68
Policy fees		6,985 00
Total income		$494.861 15
Total		$761,810 31

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$184,410 09	
Deduct amount received for reinsurance, fire	10,338 39	
Net amount paid for losses		$174.071 70
Expenses of adjustment, settlement of losses (less $158.62 reinsured)		3.237 59
Commissions or brokerage		25,993 39
Salaries and expenses of special and general agents		46,176 59
Salaries, fees and other charges of officers, directors, trustees, agents and employees		30,974 17
Rents, including company's occupancy of its own buildings		4,471 50
Advertising, printing and stationery		10,641 34
Postage, telegrams, telephone and express		8,690 74
Legal expenses		3,588 19

Furniture and fixtures	$683 17
State taxes on premiums	765 75
Insurance department licenses and fees	782 50
Other disbursements: Traveling expenses, miscellaneous, $2,358.30; exchange, $731.48; sundry expenses, $1,009.93; agents' fees, $5,014.52; interest (accrued on securities purchased), $169.44	9,283 67
Paid policyholders for dividends	152,557 96
Total disbursements	$471,918 26
Balance	$289,892 05

LEDGER ASSETS.

Mortgage loans on real estate	$54,500 00
School warrants	123 60
Book value of bonds and stocks	91,837 45
Cash in office	3,155 40
Deposits in trust companies and banks not on interest	25,748 20
Deposits in trust companies and banks on interest	45,000 00
Agents' balances, representing business written subsequent to October 1st, last	45,559 50
Agents' balances, representing business written prior to October 1st, last	8,174 04
Bills receivable taken for fire risks	6,268 27
Other ledger assets: Cash in hands of agents, $901.99; furniture and fixtures, $628.12; advance for reinsurance, $2,000.00; reinsurance due from other companies, $337.48	9,525 59
Total ledger assets	$289,982 05

Non-Ledger Assets.

Interest due and accrued on mortgages	$1,048 95	
Interest due and accrued on bonds	2,034 51	
Interest due and accrued on other assets	1,112 31	
Total		4,195 77
Gross assets		$294,087 82

Deduct Assets Not Admitted.

Furniture, fixtures and safes	$6,286 12	
Agents' balances, representing business written prior to October 1st, last	8,174 04	
Palouse State Bank, Palouse, Washington (in hands of receiver)	84 54	
Total		14,541 70
Total admitted assets		$279,546 12

LIABILITIES.

Losses in process of adjustment, or in suspense		$988 80
Unearned premiums at 50 per cent on fire risks running one year or less (less $4,087.02 reserve on insurance lapsed)	$159,680 99	
Unearned premiums pro rata on fire risks running more than one year	30,066 34	
Total unearned premiums as computed above		189,747 33
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		2,000 00
All other liabilities: Premiums collected in advance		2,756 47
Total liabilities, except capital		$195,492 60
Surplus to policyholders		84,053 52
Total		$277,546 12

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$39,413,818	$381,877 66
Written during the year	65,499,870	620,008 06
Totals	$104,913,688	$1,001,885 72
Expired and terminated	60,727,080	580,906 47
In force at end of the year	$44,186,608	$420,979 25
Deduct amount reinsured	2,919,455	33,502 82
Net amount in force	$41,267,153	$387,476 43

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run		$327,536 03
More than one and not more than three years to run		26,039 56
More than three years to run		33,900 84
Net amount in force December 31, 1911	$41,267,153	$38,476 43

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$40,000 00
Losses incurred during the year: Fire	170,971 61
Amount loaned to officers and directors	1,600 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$2,474,910 00
Less	1,326,152 00
Net risks written	1,148,758 00
Gross premiums received	33,056 35
Less	5,264 02
Net premiums received	27,792 33
Net losses paid	9,553 22
Net losses incurred	9,553 22

NORTH RIVER INSURANCE COMPANY.

New York, N. Y.

(Incorporated February 6, 1822.)

William E. Hutchens, President. Frederick H. Crum, Secretary.

Agent for service in California: Associated Underwriters, Inc., San Francisco.

CAPITAL.

Capital stock paid in cash	$350,000 00	
Amount of ledger assets extended at		$2,273,124 18

INCOME.

	Fire.	
Gross premiums	$3,289,104 30	
Deduct gross amount paid for reinsurance, fire, $908,499.23; return premiums, fire, $592,486.56	1,500,985 79	
Total premiums (other than perpetuals)		$1,788,118 51
Interest on mortgage loans	$33,176 16	
Interest on collateral loans	1,136 83	
Interest on bonds and dividends on stocks, less $1,304.98	39,047 39	
Interest from other sources	3,601 74	
Total interest and rents		76,692 12

Amount brought forward	$1,864,810 63
From other sources: 35 shares Lackawanna Railroad Company (dividend from Delaware and Lackawanna Railroad Company)	3,500 00
Profit on sale or maturity of ledger assets	6,699 50
Total income	$1,875,280 13
Total	$4,148,404 31

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses ($255,098.55)	$1,489,904 22	
Deduct amount received for salvage, fire, $8,020.52; reinsurance, fire, $537,667.96; discount, fire, $1,934.25	547,622 73	
Net amount paid for losses		$942,281 49
Expenses of adjustment, settlement of losses		29,520 69
Commissions or brokerage		435,071 11
Salaries and expenses of special and general agents		76,445 12
Salaries, fees and other charges of officers, directors, trustees, agents and employees		122,254 57
Rents, including company's occupancy of its own buildings		15,000 00
Advertising, printing and stationery		12,111 94
Postage, telegrams, telephone and express		4,008 13
Legal expenses		2,356 95
Maps, including corrections		4,819 86
Underwriters' boards and tariff associations		8,514 06
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		12,646 52
Inspections and surveys		10,925 29
State taxes on premiums		31,132 63
Insurance department licenses and fees		7,378 03
All other licenses, fees and taxes		8,643 39
Other disbursements: Suppers, subscriptions to periodicals, car fare, ice water, towels and soap, premiums on surety bonds required by various states		3,702 21
Interest and dividends to stockholders		36,900 00
Loss on sale or maturity of ledger assets		12,125 48
Decrease in book value of ledger assets		3,500 00
Total disbursements		$1,779,337 47
Balance		$2,369,066 84

LEDGER ASSETS.

Mortgage loans on real estate	$783,100 00
Loans secured by pledge of bonds, stocks or other collaterals	26,690 00
Book value of bonds and stocks	1,009,452 01
Deposits in trust companies and banks on interest	184,441 60
Agents' balances, representing business written subsequent to October 1st, last	365,383 23
Total ledger assets	$2,369,066 84

Non-Ledger Assets.

Interest due and accrued on mortgages	$10,983 14	
Interest due and accrued on bonds	3,916 64	
Interest due and accrued on collateral loans	358 13	
Total		15,257 91
Market value of bonds and stocks over book value		5,480 49
Gross assets		$2,389,805 24

LIABILITIES.

Losses adjusted and unpaid, due and not due	$36,876 83	
Losses in process of adjustment, or in suspense	179,653 60	
Losses resisted	28,402 57	
Total claims for losses	$244,933 00	
Deduct reinsurance	95,864 15	
Net amount of unpaid losses		$149,068 85
Unearned premiums at 50 per cent on fire risks running one year or less	$617,308 42	
Unearned premiums pro rata on fire risks running more than one year	733,903 21	
Total unearned premiums as computed above		1,351,211 63
Dividends declared and unpaid, to stockholders		2,437 75
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		2,000 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		25,000 00
Total liabilities, except capital stock		$1,529,718 23
Cash capital	$350,000 00	
Surplus over all liabilities	510,087 01	
Surplus to policyholders		860,087 01
Total		$2,389,805 24

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$314,752,170	$3,377,240 27
Written during the year	306,394,726	3,289,104 30
Excess of original premiums over amount received for reinsurance		24,954 40
Total	$621,146,896	$6,690,398 97
Expired and terminated	272,880,872	2,955,621 45
In force at end of the year	$348,266,024	$3,734,777 52
Deduct amount reinsured	105,632,534	1,124,169 11
Net amount in force	$242,633,490	$2,610,608 41

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

In force, having from date of policy not more than one year to run	$108,677,651	$1,234,616 83
More than one and not more than three years to run	113,046,733	1,100,533 30
More than three years to run	20,909,106	275,458 28
Net amount in force December 31, 1911	$242,033,390	$2,610,608 41

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$50,000 00
Losses incurred during the year: Fire	922,350 34
Amount loaned to officers and directors	4,000 00
Amount loaned to stockholders not officers	5,000 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$11,112,658 00
Less	4,722,357 00
Net risks written	6,390,301 00
Gross premiums received	191,226 34
Less	73,717 88
Net premiums received	117,508 46
Net losses paid	20,009 07
Net losses incurred	19,577 07

ORIENT INSURANCE COMPANY.

Hartford, Conn.

(Incorporated June 28, 1867. Commenced business in California March 10, 1891.)

Archibald G. McIlwaine, Jr., President. Henry W. Gray, Jr., Secretary.

Agent for service in California: James Wyper, San Francisco, Cal.

CAPITAL.

Capital stock paid in cash	$500,000 00	
Amount of ledger assets December 31st of previous year		$3,122,930 70

INCOME.

	Fire.	Marine and inland.	
Gross premiums	$2,199,502 21	$64,757 00	
Deduct amount paid for reinsurance, fire, $421,957.62; marine and inland, $4,733.93; return premiums, fire, $357,699.14; marine and inland, $13,957.76	779,656 76	28,691 69	
Total premiums (other than perpetuals)	$1,419,845 45	$46,065 31	$1,465,910 76
Interest on bonds and dividends on stocks		$110,436 80	
Interest from other sources		5,238 92	
Rents, including company's occupancy of its own buildings		12,500 00	
Total interest and rents			128,175 72
Dividend of 40 per cent paid by Holland Trust Company			4,000 00
Total income			$1,598,086 48
Total			$4,721,017 18

DISBURSEMENTS.

	Fire.	Marine and inland.	
Gross amount paid for losses	$1,040,337 29	$12,346 82	
Deduct amount received for salvage, fire, $20,344.01; marine and inland, $1,597.00; reinsurance, fire, $316,742.40; marine and inland, $230.00; discount, fire, $408.14	337,494 55	1,827 00	
Net amount paid for losses	$702,842 74	$10,519 82	$713,362 56
Expenses of adjustment, settlement of losses			29,878 70
Commissions or brokerage			303,598 99
Allowances to local agencies for miscellaneous agency expenses			4,736 85
Salaries and expenses of special and general agents			47,681 65
Salaries, fees and other charges of officers, directors, trustees, agents and employees			62,925 10
Rents, including company's occupancy of its own buildings			9,185 16
Advertising, printing and stationery			19,480 35
Postage, telegrams, telephone and express			9,616 71
Legal expenses			435 36
Furniture and fixtures			1,350 73
Maps, including corrections			3,202 74
Underwriters' boards and tariff associations			20,490 83
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses			15,677 12
Inspections and surveys			5,654 55
Repairs and expenses on real estate			3,285 02
Taxes on real estate			3,871 50
State taxes on premiums			23,476 75
Insurance department licenses and fees			10,755 83

All other licenses, fees and taxes	$18,928 76
Other disbursements: Exchange, $912.20; rent of safe deposit box, $112.50; miscellaneous expenses, $4,149.32; subscriptions, $627.61	5,801 63
Loss on sale or maturity of ledger assets	20,700 00
Total disbursements	$1,334,096 89
Balance	$3,386,920 29

LEDGER ASSETS.

Book value of real estate	$167,686 38
Book value of bonds and stocks	2,614,943 86
Cash in office	66 12
Deposits in trust companies and banks not on interest	709 55
Deposits in trust companies and banks on interest	311,229 92
Agents' balances, representing business written subsequent to October 1st, last	287,513 89
Agents' balances, representing business written prior to October 1st, last	4,606 79
Balances due from other companies	163 78
Total ledger assets	$3,386,920 29

Non-Ledger Assets.

Interest due and accrued on bonds	$32,992 89
Reinsurance due on paid losses	5,101 95
Commissions due on unpaid reinsurance	7,655 50
Gross assets	$3,432,670 63

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$4,606 79	
Book value of ledger assets over market value, bonds and stocks	77,226 36	
Balances due from other companies	132 52	
Special deposits to secure liabilities in Virginia, $25,500; New Mexico, $11,300	36,800 00	
Total		118,765 67
Total admitted assets		$3,313,904 96

LIABILITIES.

Losses adjusted and unpaid, due and not due	$21,296 00	
Losses in process of adjustment, or in suspense	130,846 74	
Losses resisted	14,520 72	
Total claims for losses	$166,636 46	
Deduct reinsurance	47,646 38	
Net amount of unpaid losses		$118,990 08
Unearned premiums at 50 per cent on fire risks running more than one year	$449,199 88	
Unearned premiums pro rata on fire risks running more than one year	932,523 59	
Unearned premiums at 50 per cent on inland navigation risks	21,422 14	
Total unearned premiums as computed above		1,403,145 61
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		2,310 73
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		33,349 83
Return premiums, $712.57; reinsurance premium, $19,579.78		20,292 35
All other liabilities due other companies		256 90
Total		$1,578,345 50
Losses, $3,655; unearned premiums, $14,855		18,510 00
Total liabilities, except capital stock		$1,559,835 50

Total liabilities, except capital stock		$1,559,835 50
Cash capital	$500,000 00	
Surplus over all liabilities	1,254,069 46	
Surplus to policyholders		1,754,069 46
Total		$3,313,904 96

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force on the 31st day of December, as per line 5, under this heading in last year's statement	$277,498,482	$2,898,698 17
Written or renewed during the year, per Income No. 5	209,527,208	2,199,502 21
Excess of original premiums over amount received for reinsurance	----------	5,273 65
Total	$487,025,690	$5,194,474 03
Deduct those expired and marked off as terminated	186,920,046	2,023,984 99
In force at the end of the year	$300,105,644	$3,170,489 04
Deduct amount reinsured (schedule required)	46,800,266	534,572 30
Net amount in force	$253,305,378	$2,635,916 74

	Marine and inland risks.	Premiums.
Written or renewed during the year, per Income No. 5	$3,707,832	$64,757 00
Deduct those expired and marked off as terminated	1,415,441	17,579 23
In force at the end of the year	$2,292,391	$47,177 77
Deduct amount reinsured (schedule required)	559,506	4,423 50
Net amount in force	$1,732,885	$42,754 27

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$79,229,478	$898,399 76
More than one and not more than three years to run	123,543,979	1,133,610 11
More than three years to run	50,531,921	603,906 87
Net amount in force December 31, 1911	$253,305,378	$2,625,916 74

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$25,000 00
Losses incurred during the year: Fire, $717,079.83; marine and inland, $11,479.70	728,559 53

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.	Marine and inland.
Gross risks written	$8,146,890 00	$1,500,966 00
Less	2,438,526 00	875,421 00
Net risks written	5,708,364 00	625,545 00
Gross premiums received	116,108 23	17,582 15
Less	28,565 43	7,741 67
Net premiums received	87,542 80	9,840 48
Net losses paid	28,067 87	1,375 84
Net losses incurred	25,087 87	1,375 84

UNITED STATES BRANCH OF THE PALATINE INSURANCE COMPANY, LTD., OF LONDON, ENGLAND.

New York, N. Y.

(Incorporated August 22, 1900. Commenced business in California January 3, 1901.)

A. H. WRAY, Manager.

Agent for service in California: E. T. NIEBLING, San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year		$3,370,915 67

INCOME.

	Fire.	
Gross premiums	$2,610,440 40	
Deduct gross amount paid for reinsurance, fire, $338,986.64; return premiums, fire, $501,481.78	840,468 42	
Total premiums (other than perpetuals)		$1,769,971 98
Interest on bonds and dividends on stocks	$124,784 11	
Interest from other sources	1,833 21	
Total interest		126,617 32
Received from Home Office		3,044 95
Total income		$1,899,634 25
Total		$5,270,549 92

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$1,163,369 03	
Deduct amount received for salvage, fire, $11,900.06; reinsurance, fire, $202,612.98	214,513 04	
Net amount paid for losses		$948,855 99
Expenses of adjustment, settlement of losses		28,402 05
Commissions or brokerage		391,592 76
Allowances to local agencies for miscellaneous agency expenses		1,735 94
Salaries and expenses of special and general agents		45,580 54
Salaries, fees and other charges of officers, directors, trustees, agents and employees		73,069 86
Rents, including company's occupancy of its own buildings		10,453 98
Advertising, printing and stationery		14,315 27
Postage, telegrams, telephone and express		11,849 00
Legal expenses		4,551 98
Furniture and fixtures		334 82
Maps, including corrections		2,946 98
Underwriters' boards and tariff associations		18,054 08
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		15,254 66
Inspections and surveys		10,686 83
State taxes on premiums		31,992 08
Insurance department licenses and fees		9,205 90
All other licenses, fees and taxes		12,283 44
Remitted to home office	$162,322 09	
Exchange	1,708 13	
		164,030 22
Agents' balances charged off		206 11
Loss on sale or maturity of ledger assets		25 00
Decrease in book value of ledger assets		5,969 96
Total disbursements		$1,801,397 45
Balance		$3,469,152 47

LEDGER ASSETS.

Book value of bonds and stocks		$2,922,104 16
Deposits in trust companies and banks not on interest		14.620 55
Deposits in trust companies and banks on interest		122,099 07
Agents' balances, representing business written subsequent to October 1st, last		399,744 33
Agents' balances, representing business written prior to October 1st, last		10,531 69
Bills receivable taken for fire risks		52 67
Total ledger assets		$3,469,152 47

Non-Ledger Assets.

Interest due and accrued on bonds		32.301 00
Gross assets		$3,501,453 47

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$10.531 69	
Bills receivable, past due, taken for marine, inland and fire risks	52 67	
Book value of ledger assets over market value: Bonds and stocks	60,884 16	
Special deposits to secure liabilities in Virginia, Georgia, and New Mexico	69,720 00	
Total		141,188 52
Total admitted assets		$3.360.264 95

LIABILITIES.

Losses adjusted and unpaid, due and not due	$8,475 00	
Losses in process of adjustment, or in suspense	132.884 00	
Losses resisted	25,733 00	
Total claims for losses	$167.092 00	
Deduct reinsurance	28,722 57	
Net amount of unpaid losses		$138,369 43
Unearned premiums at 50 per cent on fire risks running one year or less	$625.299 26	
Unearned premiums pro rata on fire risks running more than one year	1,001.153 04	
Total unearned premiums as computed above		1,626.452 30
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		15,574 85
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		33,335 99
Commissions, brokerage and other charges due or to become due to agents and brokers		43.828 33
Return premiums, $10,582.00; reinsurance premiums, $35,109.91		45.691 91
Unpaid balances due other companies		2,532 63
Total		$1,905,785 44
Less liabilities secured by special deposits in Virginia, Georgia and New Mexico: Losses, $2,695; unearned premiums, $93.369.90		96.064 90
Total liabilities, except capital stock		$1,809,720 54
Surplus to policyholders		1,550,544 41
Total		$3,360,264 95

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$292,682,310	$3,403,404 32
Written or renewed in 1911	233,435,436	2,610,440 40
Totals	$526,117,746	$6,013,844 72
Deduct expirations and cancellations	201,375,020	2,374,599 11
In force December 31, 1911	$324,742,726	$3,639,245 61
Deduct amount reinsured	44,764,542	513,260 00
Net amount in force	$279,978,184	$3,125,985 61

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$100,000 00
Losses incurred during the year: Fire	948,732 05

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$9,393,496 00
Less	3,335,320 00
Net risks written	6,058,176 00
Gross premiums received	137,883 88
Less	34,868 46
Net premiums received	103,015 42
Net losses paid	42,057 86
Net losses incurred	41,302 22

PELICAN ASSURANCE COMPANY.

New York, N. Y.

(Incorporated March 7, 1899. Commenced business in California May 17, 1899.)

L. P. Bayard, President. A. D. Irving, Jr., Secretary.

Agent for service in California: W. Irving, San Francisco.

CAPITAL.

Capital stock paid in cash	$200,000 00	
Amount of ledger assets December 21st of previous year		$697,245 29

INCOME.

	Fire.	
Gross premiums	$493,732 75	
Deduct gross amount paid for reinsurance, fire, $81,251.63; return premiums, fire, $92,535.58	173,587 21	
Total premiums (other than perpetuals)		$319,945 54
Interest on bonds and dividends on stocks	$24,292 00	
Interest from other sources	904 63	
Total interest and rents		25,196 63
Increase in book value of ledger assets		6,055 30
Total income		$351,197 47
Total		$1,048,442 76

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$229,962 52	
Deduct amount received for salvage, fire, $2,112.54; reinsurance, fire, $44,875.48; discount, fire, $70.12	47,058 14	
Net amount paid for losses		$182,904 38
Expenses of adjustment, settlement of losses		3,821 54
Commissions or brokerage		75,370 70
Allowances to local agencies for miscellaneous agency expenses		567 69
Salaries and expenses of special and general agents		352 70
Salaries, fees and other charges of officers, directors, trustees, agents and employees		17,396 22
Rents, including company's occupancy of its own buildings		2,450 49
Advertising, printing and stationery		3.927 09
Postage, telegrams, telephone and express		1,191 01
Legal expenses		14 42
Maps, including corrections		1,201 92
Underwriters' boards and tariff associations		2,477 12
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		2,496 58
Inspections and surveys		1,364 08
State taxes on premiums		5,558 51
Insurance department licenses and fees		2,083 67
All other licenses, fees and taxes		1.668 17
Premiums on bonds required by state		220 00
Exchange		219 26
Interest and dividends to stockholders		20,000 00
Decrease in book value of ledger assets		1,175 00
Total disbursements		$326,460 55
Balance		$721,982 21

LEDGER ASSETS.

Book value of bonds and stocks	$627,635 75
Deposits in trust companies and banks on interest	38,076 00
Agents' balances, representing business written subsequent to October 1st, last	54,375 29
Agents' balances, representing business written prior to October 1st, last	1,795 17
Philadelphia Underwriters' deposit	100 00
Total ledger assets	$721,982 21

Non-Ledger Assets.

Interest due and accrued on bonds	6,176 10
Reinsurance due on losses paid	54 15
Gross assets	$728,212 46

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	1,795 17
Total admitted assets	$726,417 29

LIABILITIES.

Losses adjusted and unpaid, due and not due	$1,373 00	
Losses in process of adjustment, or in suspense	28,408 00	
Losses resisted	1,200 00	
Total claims for losses	$30,981 00	
Deduct reinsurance	6,660 00	
Net amount of unpaid losses		$24,321 00
Unearned premiums at 50 per cent on fire risks running one year or less	$108,123 12	
Unearned premiums pro rata on fire risks running more than one year	154,085 25	
Total unearned premiums as computed above		262,208 37
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		4,700 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		7,500 00
Reinsurance premiums		5,388 90
Total liabilities, except capital stock		$304,118 27
Cash capital	$200,000 00	
Surplus over all liabilities	222,299 02	
Surplus to policyholders		422,299 02
Total		$726,417 29

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$56,028,535	$554,310 00
Written during the year	50,515,683	493,732 75
Excess of original premiums over amount received for reinsurance	----------	1,311 57
Totals	$106,544,218	$1,049,354 32
Expired and terminated	44,558,101	454,226 07
In force at end of the year	$61,986,117	$595,128 25
Deduct amount reinsured	8,981,078	106,459 31
Net amount in force	$53,005,039	$488,668 94

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$22,499,223	$216,246 25
More than one and not more than three years to run	25,688,374	216,972 60
More than three years to run	4,817,442	61,450 09
Net amount in force December 31, 1911	$53,005,039	$488,668 94

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$25,000 00
Losses incurred during the year: Fire	180,691 38

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$2,864,051 00
Less	929,318 00
Net risks written	1,934,733 00
Gross premiums received	44,318 05
Less	12,023 30
Net premiums received	32,294 75
Net losses paid	8,649 86
Net losses incurred	7,804 42

THE PENNSYLVANIA FIRE INSURANCE COMPANY.

Philadelphia, Pa.

(Incorporated March, 1825. Commenced business in California December 20, 1875.)

R. DALE BENSON, President. W. GARDNER CROWELL, Secretary.

Agent for service in California: R. W. OSBORNE, San Francisco.

CAPITAL.

Capital stock paid in cash	$750,000 00	
Amount of ledger assets December 31st of previous year		$7,623,345 15

INCOME.

	Fire.	
Gross premiums	$4,510,832 54	
Deduct gross amount paid for reinsurance, fire, $406,808.49; return premiums, fire, $613,761.48	1,020,569 97	
Total premiums (other than perpetuals)		$3,490,262 57
Deposit premiums on perpetual risks		23,222 08
Interest on mortgage loans	$9,916 34	
Interest on collateral loans	3,911 79	
Interest on bonds and dividends on stocks	273,529 61	
Interest from other sources	4,278 71	
Rents, including company's occupancy of its own buildings	8,261 25	
Total interest and rents		299,897 70
Transfers		501 50
Profit on sale or maturity of ledger assets		9,437 25
Total income		$3,823,321 10
Total		$11,446,666 25

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$2,255,407 23	
Deduct amount received for salvage, fire, $12,095.30; reinsurance, fire, $105,908.98; discount, fire, $1,582.20	119,586 48	
Net amount paid for losses		$2,135,820 75
Expenses of adjustment, settlement of losses		30,534 34
Commissions or brokerage		795,344 49
Salaries and expenses of special and general agents		141,970 06
Salaries, fees and other charges of officers, directors, trustees, agents and employees		71,054 00
Rents, including company's occupancy of its own buildings		20,995 66
Advertising, printing and stationery		27,762 02
Postage, telegrams, telephone and express		21,684 39
Legal expenses		1,280 54
Furniture and fixtures		2,960 52
Maps, including corrections		9,007 03
Underwriters' boards and tariff associations		40,433 83
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		1,536 91
Inspections and surveys		11,624 98
Repairs and expenses on real estate		225 24
Taxes on real estate		2,352 17
State taxes on premiums		74,828 58
Insurance department licenses and fees		15,831 95
All other licenses, fees and taxes		21,616 37
Miscellaneous		23,852 93
Deposit premiums returned		27,328 34
Interest and dividends to stockholders		225,000 00
Total disbursements		$3,703,045 10
Balance		$7,743,621 15

LEDGER ASSETS.

Book value of real estate	$189,377 07
Mortgage loans on real estate	194,500 00
Loans secured by pledge of bonds, stocks or other collaterals	125,587 24
Book value of bonds and stocks	6,460,443 36
Cash in office	1,328 64
Deposits in trust companies and banks not on interest	20,000 00
Deposits in trust companies and banks on interest	99,124 87
Agents' balances, representing business written subsequent to October 1st, last	627,133 94
Agents' balances, representing business written prior to October 1st, last	26,126 03
Total ledger assets	$7,743,621 15

Non-Ledger Assets.

Interest due and accrued on mortgages	$2,518 97	
Interest due and accrued on bonds	83,691 37	
Interest due and accrued on collateral loans	1,790 55	
Rents due and accrued on company's property	23 75	
Total		88,024 64
Gross assets		$7,831,645 79

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$26,126 03	
Bonds and stocks	123,956 36	
Real estate	50,377 07	
Collateral	9,687 24	
Total		209,546 70
Total		$7,622,099 09

LIABILITIES.

Losses adjusted and unpaid, due and not due	$30,893 70	
Losses in process of adjustment, or in suspense	329,430 45	
Losses resisted	16,562 16	
Total claims for losses	$376,886 31	
Deduct reinsurance	24,139 83	
Net amount of unpaid losses		$352,746 48
Unearned premiums at 50 per cent on fire risks running one year or less	$1,155,195 16	
Unearned premiums pro rata on fire risks running more than one year	2,176,191 55	
Total unearned premiums as computed above		3,331,386 71
Amount reclaimable by the insured on perpetual fire insurance policies		909,123 21
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		30,000 00
Commissions, brokerage and other charges due or to become due to agents and brokers		8,364 45
Total liabilities, except capital		$4,631,620 85
Cash capital	$750,000 00	
Surplus over all liabilities	2,240,478 24	
Surplus to policyholders		2,990,478 24
Total		$7,622,099 09

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force on the 31st day of December, as per line 5 under this heading in last year's statement	$637,340,493	$6,773,343 86
Written or renewed during the year, per Income No. 5	424,300,918	4,510,832 54
Totals	$1,061,641,411	$11,284,176 40
Deduct those expired and marked off as terminated	384,353,428	4,205,013 42
In force at the end of the year	$677,287,983	$7,079,162 98
Deduct amount reinsured	56,016,392	555,225 32
Net amount in force	$621,271,591	$6,523,937 66

Perpetual risks not included above, $40,402,953.00; deposit premiums on same, $1,002,362.01.

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$120,000 00
Losses incurred during the year: Fire	2,104,644 06
Amount loaned to officers and directors	3,500 00
Amount loaned to stockholders not officers	29,000 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$15,446,030 00
Less	3,939,780 00
Net risks written	11,506,250 00
Gross premiums received	245,540 23
Less	47,621 18
Net premiums received	197,919 05
Net losses paid	71,395 32
Net losses incurred	77,754 12

PEOPLE'S NATIONAL FIRE INSURANCE COMPANY.

Philadelphia, Pa.

(Incorporated April 29, 1908. Commenced business in California July 29, 1909.)

LOUIS S. AMONSON, President. HENRY T. ALLEY, Secretary.

Agent for service in California: BERTHEAU, SALSBACH & BERTHEAU, San Francisco

CAPITAL.

Capital stock paid in cash	$1,000,000 00	
Amount of ledger assets December 31st of previous year		$2,748,639 41

INCOME.

	Fire.	
Gross premiums	$1,766,290 12	
Deduct gross amount paid for reinsurance, fire, $526,957.24; return premiums, fire, $525,503.69	1,052,460 93	
Total premiums (other than perpetuals)		$713,829 19
Deposit premiums on perpetual risks		2,787 08
Interest on mortgage loans	$32,376 42	
Interest on collateral loans	10,887 02	
Interest on bonds and dividends on stocks	72,952 98	
Interest on deposits in trust companies and banks	2,149 12	
Interest from other sources	103 77	
Total interest and rents		118,469 31

Borrowed money	$275,000 00	
Earned on perpetual policies canceled	3 00	
		$275,003 00
Agents' balances previously charged off		1,507 08
Profit on sale or maturity of ledger assets, bonds		5,081 36
Total income		$1,116,677 02
Total		$3,865,316 43

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$1,259,102 77	
Deduct amount received for salvage, fire, $5,320.33; reinsurance, fire, $201,167.80; discount, fire, $1,713.71	208,201 84	
Net amount paid for losses		$1,050,900 93
Expenses of adjustment, settlement of losses		23,527 26
Commissions or brokerage		241,425 27
Salaries and expenses of special and general agents		15,173 64
Salaries, fees and other charges of officers, directors, trustees, agents and employees		74,885 17
Rents, including company's occupancy of its own buildings		2,500 00
Advertising, printing and stationery		17,009 88
Postage, telegrams, telephone and express		9,204 11
Legal expenses		376 74
Furniture and fixtures		1,066 44
Maps, including corrections		446 95
Underwriters' boards and tariff associations		12,283 06
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		1,982 89
Inspections and surveys		3,974 58
State taxes on premiums		29,925 80
Insurance department licenses and fees		13,079 30
All other licenses, fees and taxes, notary fees		210 05
Other disbursements: Borrowed money returned, $275,000.00; interest on above, $642.35; interest on subscription (stock), $23.07; sundry office disbursements, $4,729.69; insurance paid on property secured by mortgage to company, $459.00		280,854 11
Deposit premiums returned		742 40
Interest and dividends to stockholders		50,000 00
Agents' balances charged off		334 30
Loss on sale or maturity of ledger assets, bonds		2,127 00
Total disbursements		$1,832,029 88
Balance		$2,033,286 55

LEDGER ASSETS.

Mortgage loans on real estate	$573,950 00
Loans secured by pledge of bonds, stocks or other collaterals	82,700 00
Book value of bonds and stocks	1,184,594 24
Cash in office	6,973 49
Deposits in trust companies and banks on interest	50,301 42
Agents' balances, representing business written subsequent to October 1st, last	133,583 16
Agents' balances, representing business written prior to October 1st, last	1,184 24
Total ledger assets	$2,033,286 55

Total ledger assets		$2,033,286 55

Non-Ledger Assets.

Interest due and accrued on mortgages	$9,451 98	
Interest due and accrued on bonds	15,402 65	
Interest due and accrued on collateral loans	1,343 70	
Total		$26,198 33
Gross assets		$2,059,484 88

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$1,184 24	
Book value of ledger assets over market value	6,164 40	
Total		7,348 64
Total admitted assets		$2,052,136 24

LIABILITIES.

Losses adjusted and unpaid, due and not due	$26,674 70	
Losses in process of adjustment, or in suspense	159,809 32	
Losses resisted	9,610 59	
Total claims for losses	$196,094 61	
Deduct reinsurance	46,207 40	
Net amount of unpaid losses		$149,887 21
Unearned premiums at 50 per cent on fire risks running one year or less	$258,875 33	
Unearned premiums pro rata on fire risks running more than one year	378,134 58	
Total unearned premiums as computed above		637,009 91
Amount reclaimable by the insured on perpetual fire insurance policies		8,504 42
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		9,765 25
Total liabilities, except capital stock		$805,166 79
Cash capital	$1,000,000 00	
Surplus over all liabilities	246,969 45	
Surplus to policyholders		1,246,969 45
Total		$2,052,136 24

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$245,796,043	$2,604,733 70
Written during the year	148,416,322	1,766,290 12
Excess of original premiums over amount received for reinsurance		37,420 98
Totals	$394,212,365	$4,408,444 80
Expired and terminated	202,835,393	2,276,513 24
In force at end of the year	$191,376,972	$2,131,931 56
Deduct amount reinsured	83,141,211	910,584 41
Net amount in force	$108,135,761	$1,221,347 15

Perpetual risks not included above, $318,400; premiums on same, $9,449.36.

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$41,591,557	$517,750 66
More than one and not more than three years to run	46,243,861	480,985 36
More than three years to run	20,300,343	222,611 13
Net amount in force December 31, 1911	$108,135,761	$1,221,347 15

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$50,000 00
Losses incurred during the year: Fire	1,051,102 45

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$8,223,637 00
Less	4,339,756 00
Net risks written	3,883,881 00
Gross premiums received	92,720 80
Less	51,477 27
Net premiums received	41,243 53
Net losses paid	14,906 63
Net losses incurred	15,986 83

PHOENIX INSURANCE COMPANY.

Hartford, Conn.

(Incorporated May, 1854. Commenced business in California July 16, 1868.)

D. W. C. Skilton, President. John B. Knox, Secretary.

Agent for service in California: Geo. H. Tyson, San Francisco.

CAPITAL.

Capital stock paid in cash	$2,000,000 00	
Amount of ledger assets December 31st of previous year		$9,607,532 28

INCOME.

	Fire.	
Gross premiums	$7,419,152 37	
Deduct gross amount paid for reinsurance, fire, $886,150.95; return premiums, fire, $1,000,908.79	1,887,069 70	
Total premiums (other than perpetuals)		$5,532,092 63
Interest on mortgage loans	$2,868 85	
Interest on collateral loans	628 35	
Interest on bonds and dividends on stocks	439,023 11	
Interest from other sources	14,751 25	
Rents, including company's occupancy of its own buildings	14,004 15	
Total interest and rents		471,275 71
Borrowed money		400,000 00
Sale of rights to Imperial Bank stock		13 20
Agents' balances previously charged off		610 06
Profit on sale or maturity of ledger assets		34,499 96
Total income		$6,438,491 56
Total		$16,046,023 84

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$3,273,944 52	
Deduct amount received for salvage, fire, $20,377.35; reinsurance, fire, $520,461.71; discount, fire, $2,390.19	543,229 25	
Net amount paid for losses		$2,730,715 27
Expenses of adjustment, settlement of losses		34,339 81
Commissions or brokerage		1,159,702 31

Salaries and expenses of special and general agents		$426,862 69
Salaries, fees and other charges of officers, directors, trustees, agents and employees		139,135 25
Rents, including company's occupancy of its own buildings		26,966 12
Advertising, printing and stationery		54,315 53
Postage, telegrams, telephone and express		39,965 60
Legal expenses		8,326 51
Furniture and fixtures		4,524 89
Maps, including corrections		14,196 95
Underwriters' boards and tariff associations		66,725 92
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		17,113 67
Inspections and surveys		16,536 32
Repairs and expenses on real estate		11,107 32
Taxes on real estate		2,503 05
State taxes on premiums		100,064 12
Insurance department licenses and fees		21,237 62
Municipal taxes and fees		19,660 07
Miscellaneous expenses		2,179 08
Federal corporation tax		8,631 75
Borrowed money paid		400,000 00
Interest and dividends to stockholders		372,401 00
Agents' balances charged off		1,995 74
Loss on sale or maturity of ledger assets		3,556 34
Decrease in book value of ledger assets		13 20
Total disbursements		$5,682,776 13
Balance		$10,363,247 71

LEDGER ASSETS.

Book value of real estate		$128,791 14
Mortgage loans on real estate		52,450 00
Loans secured by pledge of bonds, stocks or other collaterals		11,300 00
Book value of bonds and stocks		8,574,646 90
Cash in office		10,621 10
Deposits in trust companies and banks not on interest		98,084 53
Deposits in trust companies and banks on interest		391,282 64
Agents' balances, representing business written subsequent to October 1st, last		1,089,786 71
Agents' balances, representing business written prior to October 1st, last		6,284 69
Total ledger assets		$10,363,247 71

Non-Ledger Assets.

Interest due and accrued on mortgages	$1,258 65	
Interest due and accrued on bonds	78,114 33	
Interest due and accrued on collateral loans	277 90	
Interest due and accrued on other assets	4,000 00	
Rents due and accrued on company's property	1,243 51	
Total		84,894 39
Market value of real estate over book value		12,222 24
Market value of bonds and stocks over book value		901,447 85
Reinsurance due from other companies on losses paid		1,506 69
Foreign premiums in course of collection, not carried to ledger account, net		47,600 00
Gross assets		$11,410,918 88

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last		6,284 69
Total admitted assets		$11,404,634 19

LIABILITIES.

Losses adjusted and unpaid, due and not due	$181,648 26	
Losses in process of adjustment, or in suspense	492,295 27	
Losses resisted	32,353 55	
Total claims for losses	$706,297 08	
Deduct reinsurance	84,686 91	
Net amount of unpaid losses		$621,610 17
Unearned premiums at 50 per cent on fire risks running one year or less	$1,710,639 15	
Unearned premiums pro rata on fire risks running more than one year	3,180,665 53	
Total unearned premiums as computed above		4,891,304 68
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		30,000 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		160,000 00
Total liabilities, except capital stock		$5,702,914 85
Cash capital	$2,000,000 00	
Surplus over all liabilities	3,701,719 34	
Surplus to policyholders		5,701,719 34
Total		$11,404,634 19

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$933,512,761	$9,266,874 55
Written during the year	902,310,998	7,484,452 37
Excess of original premiums over amount received for reinsurance		392,118 75
Totals	$1,835,823,759	$17,143,445 07
Expired and terminated	788,730,723	6,664,851 62
In force at end of the year	$1,047,093,036	$10,478,593 45
Deduct amount reinsured	96,958,081	1,024,280 83
Net amount in force	$950,134,955	$9,454,312 62

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$365,214,047	$3,421,278 30
More than one and not more than three years to run	420,466,404	4,134,221 71
More than three years to run	164,454,504	1,898,812 61
Net amount in force December 31, 1911	$950,134,955	$9,454,312 62

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$175,000 00
Losses incurred during the year: Fire	2,773,699 30
Amount loaned to officers and directors	11,300 00
Amount loaned to stockholders not officers	20,000 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$29,226,243 00
Less	9,784,743 00
Net risks written	19,441,500 00
Gross premiums received	473,740 50
Less	142,930 74
Net premiums received	330,809 76
Net losses paid	116,935 73
Net losses incurred	119,619 10

UNITED STATES BRANCH OF THE PHŒNIX ASSURANCE COMPANY, LIMITED.

London, England.

(Incorporated January 17, 1782. Commenced business in California December 22, 1879.)

A. D. Irving, Jr., Secretary.

Agent for service in California: W. Irving, San Francisco, Cal.

CAPITAL.

Amount of ledger assets December 31st of previous year		$3,630,159 50

INCOME.

	Fire.	
Gross premiums	$3,866,733 90	
Deduct gross amount paid for reinsurance, fire, $807,732.81; return premiums, fire, $627,126.83	1,434,859 64	
Total premiums (other than perpetuals)		$2,431,874 26
Interest on bonds and dividends on stocks	$119,545 52	
Interest from other sources	3,475 12	
Total interest and rents		123,020 64
From other sources		21,959 44
Increase in book value of ledger assets		19,972 50
Total income		$2,596,826 84

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$1,795,006 44	
Deduct amount received for salvage, fire, $13,594.65; reinsurance, fire, $307,652.69; discount, fire, $1,167.01	322,414 35	
Net amount paid for losses		$1,472,592 09
Expenses of adjustment, settlement of losses		49,361 95
Commissions or brokerage		454,077 32
Allowances to local agencies for miscellaneous agency expenses		9,750 01
Salaries and expenses of special and general agents		129,584 29
Salaries, fees and other charges of officers, directors, trustees, agents and employees		135,448 95
Rents, including company's occupancy of its own buildings		22,270 95
Advertising, printing and stationery		28,798 37
Postage, telegrams, telephone and express		26,726 26
Legal expenses		100 33
Furniture and fixtures		2,902 19
Maps, including corrections		6,934 51
Underwriters' boards and tariff associations		26,691 22
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		29,819 58
Inspections and surveys		17,660 14
State taxes on premiums		43,212 03
Insurance department licenses and fees		10,673 52
All other licenses, fees and taxes		13,795 25
Premiums on bonds required by states, $527.67; exchange, $1,861.88; remitted to home office, $2,438.89		4,828 44
Agents' balances charged off		53 23
Decrease in book value of ledger assets		13,946 25
Total disbursements		$2,499,226 88
Balance		$3,727,759 46

LEDGER ASSETS.

Book value of bonds and stocks	$3,032,676 00
Cash in office	1,025 89
Deposits in trust companies and banks not on interest	1,122 29
Deposits in trust companies and banks on interest	195,259 00
Agents' balances, representing business written subsequent to October 1st, last	494,381 09
Agents' balances, representing business written prior to October 1st, last	3,095 19
Philadelphia Underwriters' deposit	200 00
Total ledger assets	$3,727,759 46

Non-Ledger Assets.

Interest due and accrued on bonds	44,078 76
Reinsurance due on losses paid	3,947 03
Gross assets	$3,775,785 25

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	3,095 19
Total admitted assets	$3,772,690 06

LIABILITIES.

Losses adjusted and unpaid, due and not due	$58,363 00	
Losses in process of adjustment, or in suspense	219,739 00	
Losses resisted	16,264 00	
Total claims for losses	$294,366 00	
Deduct reinsurance	92,151 00	
Net amount of unpaid losses		$202,215 00
Unearned premiums at 50 per cent on fire risks running one year or less	$801,358 77	
Unearned premiums pro rata on fire risks running more than one year	1,256,951 43	
Total unearned premiums as computed above		2,058,310 20
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		15,789 39
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		48,000 00
Reinsurance premiums		31,396 89
Total liabilities except capital		$2,355,711 48
Surplus over all liabilities		1,416,978 58
Total		$3,772,690 06

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$464,721,302	$4,700,532 99
Written during the year	388,692,695	3,866,733 90
Excess of original premiums over amount received for reinsurance	----------	1,842 76
Totals	$853,413,997	$8,569,109 65
Expired and terminated	341,650,466	3,490,450 97
In force at end of the year	$511,763,531	$5,078,658 68
Deduct amount reinsured	114,389,443	1,100,648 81
Net amount in force	$397,374,088	$3,978,009 87

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$147,721,675	$1,602,717 55
More than one and not more than three years to run	202,614,741	1,784,077 83
More than three years to run	47,037,672	591,214 47
Net amount in force December 31, 1911	$397,374,088	$3,978,009 87

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$220,000 00
Losses incurred during the year: Fire	1,450,132 28

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$24,503,317 00
Less	8,022,238 00
Net risks written	16,481,079 00
Gross premiums received	391,295 66
Less	112,863 65
Net premiums received	278,432 01
Net losses paid	97,955 86
Net losses incurred	97,701 99

PROVIDENCE WASHINGTON INSURANCE COMPANY.

Providence, R. I.

(Incorporated 1799. Commenced business in California December 22, 1879.)

J. B. Branch, President.

Agent for service in California: J. F. D. Curtis, San Francisco.

CAPITAL.

Capital stock paid in cash	$750,000 00	
Amount of ledger assets December 31st of previous year		$2,813,240 97
Increase of paid-up capital during year		250,000 00
Extended at		$3,063,240 97

INCOME.

	Fire.	Marine and inland.	
Gross premiums	$3,253,250 76	$1,307,354 37	
Deduct gross amount paid for reinsurance, fire, $598,420.16; marine and inland, $292,579.52; return premiums, fire, $475,162.31; marine and inland, $164,912.19	$1,073,582 47	457,491 71	
Total premiums (other than perpetuals)	$2,179,668 29	$849,862 66	$3,029,530 95
Interest on bonds and dividends on stocks		151,913 83	
Interest from other sources		7,747 17	
Total interest			159,661 00
From other sources: Profit and loss for Standard Oil Company subsidiaries			35,689 00
Profit on sale or maturity of ledger assets			31,341 75
Increase in book value of ledger assets			225 00
Total income			$3,256,447 70
Total			$6,319,688 67

DISBURSEMENTS.

	Fire.	Marine and inland.	
Gross amount paid for losses	$1,699,680 93	$757,014 33	
Deduct amount received for salvage, fire, $18,027.39; marine and inland, $47,424.57; reinsurance, fire, $326,575.28; marine and inland, $228,231.51; discount, fire, $1,106.11; marine and inland, $328.54	345,708 78	275,984 62	
Net amount paid for losses	$1,353,972 15	$481,029 71	$1,835,001 86
Expenses of adjustment, settlement of losses			29,934 87
Commissions or brokerage			613,213 77
Salaries and expenses of special and general agents			129,468 04
Salaries, fees and other charges of officers, directors, trustees, agents and employees			106,484 55
Rents, including company's occupancy of its own buildings			12,188 25
Advertising, printing and stationery			28,104 26
Postage, telegrams, telephone and express			24,813 57
Legal expenses			541 32
Furniture and fixtures			3,612 76
Maps, including corrections			6,408 71
Underwriters' boards and tariff associations			32,123 11
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses			21,310 17
Inspections and surveys			14,458 39
State taxes on premiums			55,796 75
Insurance department licenses and fees			12,963 49
All other licenses, fees and taxes			12,457 36
Other disbursements			4,359 05
Interest and dividends to stockholders			75,000 00
Decrease in book value of ledger assets			254,133 63
Total disbursements			$3,272,373 91
Balance			$3,047,314 76

LEDGER ASSETS.

Book value of bonds and stocks	$2,305,514 00
Cash in office	927 87
Deposits in trust companies and banks not on interest	12,858 83
Deposits in trust companies and banks on interest	192,387 52
Agents' balances, representing business written subsequent to October 1st, last	519,887 38
Agents' balances, representing business written prior to October 1st, last	1,278 32
Bills receivable, taken for marine and inland risks	14,120 84
Bills receivable taken for fire risks	340 00
Total ledger assets	$3,047,314 76

Non-Ledger Assets.

Interest due and accrued on bonds	$5,041 22	
Interest due and accrued on other assets	1,675 00	
Total		6,716 22
Market value of bonds and stocks over book value		1,090,634 00
Gross assets		$4,144,664 98

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$1,278 32	
Bills receivable, past due, taken for marine, inland and fire risks	475 00	
Total		1,753 32
Total admitted assets		$4,142,911 66

LIABILITIES.

Losses adjusted and unpaid, due and not due	$46,584 09	
Losses in process of adjustment, or in suspense	363,652 50	
Losses resisted	19,623 80	
Total claims for losses	$429,860 39	
Deduct reinsurance	152,810 61	
Net amount of unpaid losses		$277,049 78
Unearned premiums at 50 per cent on fire risks running one year or less	$740,890 34	
Unearned premiums pro rata on fire risks running more than one year	1,155,223 03	
Unearned premiums at 50 per cent on inland navigation risks	247,258 52	
Unearned premiums at 50 per cent on marine risks	63,034 47	
Total unearned premiums as computed above		2,206,40 36
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		50,000 00
Total liabilities, except capital		$2,533,456 14
Cash capital	$750,000 00	
Surplus over all liabilities	859,455 52	
Surplus to policyholders		1,609,455 52
Total		$4,142,911 66

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910, as per line No. 5 under this heading in last year's statement	$400,908,039	$4,279,583 31
Written or renewed during the year, per Income No. 5	322,886,493	3,253,250 76
Excess of original premiums over amount received for reinsurance		10,369 47
Totals	$723,794,532	$7,543,203 54
Deduct those expired and marked off as terminated	289,515,145	3,095,940 26
In force at end of year 1911	$434,279,387	$4,447,263 28
Deduct amount reinsured	70,933,876	778,378 24
Net amount in force December 31, 1911	$363,345,511	$3,668,885 04
	Marine and inland.	Premiums.
In force December 31, 1910, as per line No. 5 under this heading in last year's statement	$24,872,796	$615,202 47
Written or renewed during the year, per Income No. 5	183,210,799	1,307,354 37
Totals	$208,083,595	$1,922,556 84
Deduct those expired and marked off as terminated	185,881,976	1,222,349 18
In force at end of year 1911	$22,201,619	$700,207 66
Deduct amount reinsured	2,764,717	86,125 49
Net amount in force December 31, 1911	$19,436,902	$614,082 17

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$85,000 00
Losses incurred during the year: Fire, $1,336,033.19; marine and inland, $485,397.62; tornado, $3,592.34	1,824,023 15

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.	Marine and inland.
Gross risks written	$8,443,642 97	$3,519,525 00
Less	2,204,097 05	181,835 00
Net risks written	6,239,545 92	3,337,690 00
Gross premiums received	132,734 58	58,468 75
Less	29,002 87	7,749 20
Net premiums received	103,731 71	50,719 55
Net losses paid	33,906 64	59,053 97
Net losses incurred	37,250 08	50,969 37

UNITED STATES BRANCH OF THE PRUSSIAN NATIONAL INSURANCE COMPANY.

Stettin, Germany.

(Incorporated 1845. Commenced business in California November 15, 1881.)

HAROLD W. LETTON, General Manager.

Agent for service in California: JOHN A. PRINSEN, Los Angeles.

CAPITAL.

Capital stock paid in cash, United States deposit	$220,000 00	
Amount of ledger assets December 31st of previous year		$1,853,807 38

INCOME.

	Fire.	
Gross premiums	$1,960,424 80	
Deduct gross amount paid for reinsurance, fire, $515,123.47; return premiums, fire, $334,454.39	849,577 86	
Total premiums (other than perpetuals)		$1,110,846 94
Interest on bonds and dividends on stocks	$60,352 50	
Interest from other sources	599 64	
Total interest		60,952 14
Loan from bank		20,000 00
Agents' balances previously charged off		362 63
Total income		$1,192,161 71
Total		$3,045,969 09

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$816,708 30	
Deduct amount received for salvage, fire, $3,948.84; reinsurance, fire, $221,955.65; discount, fire, $893.94	226,798 43	
Net amount paid for losses		589,909 87
Expenses of adjustment, settlement of losses		20,068 75
Commissions or brokerage		238,559 06
Salaries and expenses of special and general agents		54,962 00
Salaries, fees and other charges of officers, directors, trustees, agents and employees		58,694 98
Rents, including company's occupancy of its own buildings		5,000 00
Advertising, printing and stationery		9,648 36
Postage, telegrams, telephone and express		11,071 16
Legal expenses		1,357 66
Furniture and fixtures		78 55
Maps, including corrections		5,310 85
Underwriters' boards and tariff associations		13,494 08
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		10,775 30
Inspections and surveys		2,434 06
State taxes on premiums		24,588 89
Insurance department licenses and fees		5,879 08
All other licenses, fees and taxes		4,221 62
Other disbursements: Printing press, $83.30; water and ice, $229.50; light and repairs, $423.31; telephone service, $274.33; Insurance Department examination fees, $480.65; subscriptions to magazines, $255.34; bonds for employees, $152.63; towels, $67.60; typewriters, and repairs, $287.63; commercial reports, $631.50; insurance and storage, $88.15; loan and interest, $20,080; miscellaneous expenses, $77.31		23,131 25
Interest and dividends remitted home office		631 01
Agents' balances charged off		387 88
Decrease in book value of ledger assets		215 00
Total disbursements		$1,080,419 41
Balance		$1,965,549 68

LEDGER ASSETS.

Book value of bonds and stocks		$1,543,111 71
Cash in office		25 79
Deposits in trust companies and banks on interest		123,552 81
Agents' balances, representing business written subsequent to October 1st, last		293,103 95
Agents' balances, representing business written prior to October 1st, last		5,755 42
Total ledger assets		$1,965,549 68

Non-Ledger Assets.

Interest due and accrued on bonds		15,160 17
Gross assets		$1,980,709 85

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$5,755 42	
Book value of ledger assets over market value, bonds	60,561 71	
Total		66,317 13
Total admitted assets		$1,914,392 72

LIABILITIES.

Losses adjusted and unpaid, due and not due	$45,103 05	
Losses in process of adjustment, or in suspense	118,237 00	
Losses resisted	11,051 26	
Total claims for losses	$174,391 31	
Deduct reinsurance	53,817 25	
Net amount of unpaid losses		$120,574 06
Unearned premiums at 50 per cent on fire risks running one year or less	$316,972 78	
Unearned premiums pro rata on fire risks running more than one year	816,668 06	
Excess of original premiums over amount received for reinsurance, $1,575,10; unearned premiums	550 11	
Total unearned premiums as computed above		1,134,190 95
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		2,067 10
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		21,500 00
Losses for 1911 reported since closing books		1,297 00
Total liabilities, except capital stock		$1,279,629 11
United States deposit at par	$220,000 00	
Surplus over all liabilities	414,763 61	
Surplus to policyholders		634,763 61
Total		$1,914,392 72

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$224,925,589	$2,506,377 48
Written during the year	175,499,713	1,960,424 80
Totals	$400,425,302	$4,466,802 28
Expired and terminated	137,555,283	1,603,592 69
In force at end of the year	$262,870,019	$2,863,209 59
Deduct amount reinsured	56,940,778	686,659 83
Net amount in force	$205,929,241	$2,176,549 76

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$56,058,023	$633,945 56
More than one and not more than three years to run	116,030,184	1,126,701 88
More than three years to run	33,841,034	415,902 32
Net amount in force December 31, 1911	$205,929,241	$2,176,549 76

MISCELLANEOUS.

Largest amount written on any risk not deducting reinsurance	$50,000 00
Losses incurred during the year: Fire	622,502 53

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$13,674,349 00
Less	3,242,428 00
Net risks written	10,431,921 00
Gross premiums received	215,641 24
Less	47,134 38
Net premiums received	168,506 86
Net losses paid	56,047 61
Net losses incurred	62,826 44
Home office statement shows—	
Capital (paid)	562,500 00
Assets	4,980,707 96
Liabilities	3,184,741 46

QUEEN INSURANCE COMPANY.

New York, N. Y.

(Incorporated September 11, 1891. Commenced business in California, October 12, 1891.)

EDW. F. BEDDALL, President. N. S. BARTON, Secretary.

Agent for service in California: ROLLA V. WATT, San Francisco.

CAPITAL.

Capital stock paid in cash	$1,000,000 00	
Amount of ledger assets December 31st of previous year		$9,003,972 93

INCOME.

	Fire.	Marine and inland.	
Gross premiums	$6,032,947 64	$370,956 56	
Deduct gross amount paid for reinsurance, fire, $679,092.88; marine and inland, $27,412.12; return premiums, fire, $878,224.78; marine and inland, $44,319.75	1,557,317 66	71,731 87	
Total premiums (other than perpetuals	$4,475,629 98	$299,224 69	$4,774,854 67
Interest on mortgage loans		$2,950 00	
Interest on bonds and dividends on stocks, less $6,197.23 accrued interest on bonds acquired during 1911, per Schedule D		312,554 95	
Interest on deposits in trust companies and banks, per schedule N		7,776 92	
Interest from other sources bills receivable		8 00	
			323,289 87
Total income			$5,098,144 54
Total			$14,102,117 47

DISBURSEMENTS.

	Fire.	Marine and inland.	
Gross amount paid for losses, including $349,641.20 occurring in previous years	$2,743,861 37	$65,008 11	
Deduct amount received for salvage, fire, $30,238.84; marine and inland, $5,155.86; reinsurance, fire, $328,256.45; marine and inland, $839.46; discount, fire, $1,256.17	359,751 46	5,995 32	
Net amount paid for losses	$2,384,109 91	$59,092 79	$2,443,202 70
Expenses of adjustment, settlement of losses			52,999 41
Commissions or brokerage			866,901 71
Allowances to local agents for miscellaneous agency expenses			27,318 32
Salaries, $98,039.69; expenses, $67,199.16, of special and general agents			165,238 85
Salaries, fees and other charges of officers, directors, trustees, agents and employees			307,439 35
Rents, including company's occupancy of its own buildings			44,598 67
Advertising, $18,325.75; printing and stationery, $40,980.51			59,306 24
Postage, telegrams, telephone and express			30,851 96
Legal expenses			1,178 24
Furniture and fixtures			4,101 22
Maps, including corrections			12,556 50
Underwriters' boards and tariff associations			53,857 51
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses			29,234 47
Inspections and surveys			20,813 81
State taxes on premiums			68,304 63
Insurance department licenses and fees			21,181 32
Federal corporation tax			4,791 85
Municipal licenses			3,337 30
Local taxes			12,994 75
Personal property tax			23 65
Provincial taxes			614 00
Franchise tax			1,551 00
Other disbursements			26,106 71
Remitted to home office, dividends			300,000 00
Agents' balances charged off			449 19
Decrease in book value of ledger assets			343 94
Total disbursements			$4,559,297 30
Balance			$9,542,820 17

LEDGER ASSETS.

Mortgage loans on real estate		$65,000 00
Book value of bonds and stocks		8,300,784 71
Cash in office	$6,696 97	
Deposits in trust companies and banks not on interest	11,537 79	
Deposits in trust companies and banks on interest	381,467 04	
		399,701 80
Agents' balances, representing business written subsequent to October 1st, last		771,655 12
Agents' balances, representing business written prior to October 1st, last		5,232 79
Bills receivable taken for fire risks		445 75
Total ledger assets		$9,542,820 17

Non-Ledger Assets.

Interest accrued on mortgages per Schedule B	$1,405 13	
Interest due, $973.33, and accrued, $71,597.94; on bond, per Schedule D, part 1	72,571 27	
Interest accrued on other assets, bank balances	1,060 56	
Total		$75,036 96
Other non-ledger assets: Due for reinsurance on losses paid		17,165 36
Gross assets		$9,635,022 49

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$5,232 79	
Book value of ledger assets over market value: Bonds and stocks	71,691 14	
Total		$76,923 93
Total admitted assets		$9,558,098 56

LIABILITIES.

Losses adjusted and unpaid and not due	$94,007 72	
Losses in process of adjustment, or in suspense, plus $31,714.48 reserve for losses incurred prior to December 31st, of which no notice had been received on that date	287,504 45	
Losses resisted	64,519 00	
Total claims for losses	$446,031 17	
Deduct reinsurance	54,694 02	
Net amount of unpaid losses		$391,337 15
Unearned premiums at 50 per cent on risks running one year or less	$1,468,411 22	
Unearned premiums pro rata on fire risks running more than one year	2,622,878 94	
Unearned premiums at 50 per cent on inland navigation risks	105,854 85	
Unearned premiums at 100 per cent on marine risks	9,473 53	
Total unearned premiums as computed above		$4,206,618 54
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		34,767 88
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		86,215 00
Commissions, brokerage and other charges due or to become due to agents and brokers		15,095 49
Return premiums, $8,780.25; reinsurance premiums, $45,485.36		54,265 61
Pension obligations		31,000 00
Total amount of all liabilities except capital		$4,819,299 67
Cash capital	$1,000,000 00	
Surplus over all liabilities	3,738,798 89	
Surplus to policyholders		4,738,798 89
Total liabilities		$9,558,098 56

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$728,646,940	$8,279,443 20
Written during the year	521,709,306	6,032,947 64
Totals	$1,250,356,246	$14,312,390 84
Expired and terminated	482,534,993	5,703,404 35
In force at end of the year	$767,821,253	$8,608,986 49
Deduct amount reinsured	64,450,075	726,641 63
Net amount in force	$703,371,178	$7,822,344 86

	Marine and inland risks.	Premiums.
In force December 31, 1910	$643.725	$6.856 43
Written during the year	93.950.233	370,956 56
Totals	$94,593,958	$377,812 99
Expired and terminated	84,901,452	154,550 06
In force at the end of the year	$9.692,506	$223.262 93
Deduct amount reinsured	155,088	2,956 32
Net amount in force	$9.537,418	$220,306 61

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$250,000 00
Losses incurred during the year: Fire, $2,303,155.70; marine and inland, $34,812; ocean marine, $37,571.52; tornado, $21,117.10	2,396,657 04

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.	Marine and inland.
Net risks written	$22,340,311 00	$3,340,335 00
Net premiums received	372,899 07	8,353 54
Net losses paid	105,589 38	334 93
Net loss incurred	114,553 38	434 90

THE RELIANCE INSURANCE COMPANY.

Philadelphia, Pa.

(Incorporated April 21, 1841. Commenced business in California June 23, 1909.)

William Chubb, President. Chas. J. Wister, Secretary.

Agent for service in California: C. C. Kinney, San Francisco.

CAPITAL.

Capital stock paid in cash	$400,000 00	
Amount of ledger assets December 31st of previous year		$1,858,819 76

INCOME.

	Fire.	
Gross premiums	$1,632,627 97	
Deduct gross amount paid for reinsurance, fire, $284,015.49; return premiums, fire, $335,637.78	619,653 27	
Total premiums (other than perpetuals)		$1,012,974 70
Deposit premiums on perpetual risks		5,808 02
Interest on mortgage loans	$5,138 92	
Interest on bonds and dividends on stocks	53,788 00	
Interest from other sources	1,113 64	
Rents, including company's occupancy of its own buildings	8,818 00	
Total interest and rents		68,858 56
Transfers, surveys on perpetual policies, $517.53; Commercial Bank of Pennsylvania in liquidation, received dividend, $188; removal of restriction 3612 Locust street, Philadelphia, $200		905 53
Profit on sale or maturity of ledger assets		251 90
Increase in book value of ledger assets		1,500 00
Total income		$1,090,298 71
Total		$2,949,118 47

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses ($123,390.56)	$788,589 51	
Deduct amount received for salvage, fire, $2,272.02; reinsurance, fire, $163,621.66; discount, fire, $924.28	166,817 96	
Net amount paid for losses		$621,771 55
Expenses of adjustment, settlement of losses		14,624 97
Commissions or brokerage		245,803 48
Salaries and expenses of special and general agents		41,986 19
Salaries, fees and other charges of officers, directors, trustees, agents and employees		64,830 92
Rents, including company's occupancy of its own buildings		8,193 03
Advertising, printing and stationery		12,670 95
Postage, telegrams, telephone and express		9,966 88
Legal expenses		1,356 80
Furniture and fixtures		2,691 83
Maps, including corrections		5,949 91
Underwriters' boards and tariff associations		8,956 68
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		2,989 13
Inspections and surveys		1,661 23
Repairs and expenses on real estate		1,748 34
Taxes on real estate		1,719 00
State taxes on premiums		29,282 94
Insurance department licenses and fees		6,534 00
All other licenses, fees and taxes		5,097 62
Other disbursements		4,160 81
Deposit premiums returned		6,570 48
Interest and dividends to stockholders		40,000 00
Agents' balances charged off		44 38
Decrease in book value of ledger assets		650 00
Total disbursements		$1,139,261 12
Balance		$1,809,857 35

LEDGER ASSETS.

Book value of real estate		$129,327 04
Mortgage loans on real estate		108,000 00
Book value of bonds and stocks		1,238,755 00
Cash in office		1,274 89
Deposits in trust companies and banks on interest		72,487 10
Agents' balances, representing business written subsequent to October 1st, last		257,105 42
Agents' balances, representing business written prior to October 1st, last		2,907 90
Total ledger assets		$1,809,857 35

Non-Ledger Assets.

Interest due and accrued on mortgages	$869 19	
Interest due and accrued on bonds	15,197 35	
Rents due and accrued on company's property	467 50	
Total		16,534 04
Perpetual policies on real estate owned by company		1,010 00
Gross assets		$1,827,401 39

Deduct Assets Not Admitted.

Company's stock owned	$2,025 00	
Agents' balances, representing business written prior to October 1st, last	2,907 90	
Book value of ledger assets over market value: Real estate	7,827 04	
Bonds and stocks	10,671 00	
Total		23,430 94
Total admitted assets		$1,803,970 45

LIABILITIES.

Losses adjusted and unpaid, due and not due	$19,194 78	
Losses in process of adjustment, or in suspense	125,140 09	
Losses resisted	2,853 45	
Total claims for losses	$147,188 32	
Deduct reinsurance	32,938 96	
Net amount of unpaid losses		$114,249 36
Unearned premiums at 50 per cent on fire risks running one year or less	$351,744 61	
Unearned premiums pro rata on fire risks running more than one year	572,449 90	
Total unearned premiums as computed above		924,194 51
Amount reclaimable by the insured on perpetual fire insurance policies		123,625 95
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		492 75
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		15,050 00
Commissions, brokerage and other charges due or to become due to agents and brokers		19,793 51
Total liabilities, except capital stock		$1,197,406 08
Cash capital	$400,000 00	
Surplus over all liabilities	206,564 37	
Surplus to policyholders		606,564 37
Total		$1,803,970 45

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$172,207,014	$2,005,597 67
Written during the year	135,482,346	1,632,627 97
Totals	$307,689,360	$3,638,225 64
Expired and terminated	123,168,420	1,520,483 67
In force at end of the year	$184,520,940	$2,117,741 97
Deduct amount reinsured	26,841,469	336,340 93
Net amount in force	$157,679,471	$1,781,401 04

Perpetual risks not included above, $5,107,475.49; premiums on same, $136,218.10.

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$25,000 00
Losses incurred during the year: Fire	607,584 95

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$5,159,692 00
Less	2,002,819 00
Net risks written	3,156,873 00
Gross premiums received	86,690 61
Less	31,108 19
Net premiums received	55,582 42
Net losses paid	24,263 76
Net losses incurred	28,750 76

UNITED STATES BRANCH OF THE ROYAL INSURANCE COMPANY, LIMITED.

Liverpool, England.

(Incorporated May 31, 1845. Commenced business in California June 23, 1869.)

E. F. Beddall, General Attorney for the United States.

Agent for service in California: Rolla V. Watt, San Francisco.

CAPITAL.

Deposit for benefit of all policy holders in United States	$550,000 00	
Amount of ledger assets December 31st of previous year		$11,498,147 09

INCOME.

	Fire.	Marine and inland.	
Gross premiums	$10,851,653 88	$585,933 90	
Deduct gross amount paid for reinsurance, fire, $1,673,653,47; marine and inland, $40,522.10; return premiums, fire, $1,787,367.92; marine and inland, $76,760.58	3,461,021 39	117,282 68	
Total premiums (other than perpetuals)	$7,390,632 49	$468,651 22	$7,859,283 71
Deposit premiums on perpetual risks			50
Interest on mortgage loans, accrued interest on mortgages acquired during 1911		$19,333 36	
Interest on bonds and dividends on stocks acquired during 1911, per schedule D		221,784 64	
Interest from other sources		9,016 88	
Rents, including company's occupancy of its own buildings		397,260 46	
Total interest and rents			647,395 34
Received from home office			512,165 58
Agents' balances previously charged off			1 37
Increase in book value of ledger assets, bonds per schedule D			4,655 00
Total income			$9,023,501 50
Total			$20,521,648 59

DISBURSEMENTS.

	Fire.	Marine and inland.	
Gross amount paid for losses, including $698,434.66 insuring in previous years	$4,856,185 43	$175,104 84	
Deduct amount received for salvage, fire, $76,708.53; marine and inland, $7,214.86; reinsurance, fire, $945,184.38; marine and inland, $943.77; discount, fire, $261.91	1,022,154 82	8,158 63	
Net amount paid for losses	$3,834,030 61	$166,946 21	$4,000,976 82
Expenses of adjustment, settlement of losses			87,311 13
Commissions or brokerage			1,374,767 03
Allowances to local agencies for miscellaneous agency expenses			20,327 66
Salaries and expenses of special and general agents			236,465 95
Salaries, fees and other charges of officers, directors, trustees, agents and employees			577,973 91
Rents, including company's occupancy of its own buildings			88,379 96
Advertising, printing and stationery			100,751 43
Postage, telegrams, telephone and express			59,966 00

Legal expenses	$4,167 35
Furniture and fixtures	13,507 47
Maps, including corrections	14,497 06
Underwriters' boards and tariff associations	86,768 40
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses	84,375 85
Inspections and surveys	62,485 78
Repairs and expenses on real estate	169,806 83
Taxes on real estate	51,317 36
State taxes on premiums	128,686 53
Insurance department licenses and fees	26,980 87
All other licenses, fees and taxes	36,460 86
Other disbursements	47,439 65
Deposit premiums returned	3,480 78
Remitted to home office	1,358,928 29
Agents' balances charged off	1,275 70
Loss on sale or maturity of ledger assets, bonds	38,000 00
Decrease in book value of ledger assets, real estate	36,000 00
Total disbursements	$8,711,098 67
Balance	$11,810,549 92

LEDGER ASSETS.

Book value of real estate		$4,140,902 01
Mortgage loans on real estate		344,900 00
Book value of bonds, $5,082,700; stocks, $220,085.43		5,302,785 43
Cash in office	$1,083 14	
Deposits in trust companies and banks not on interest	691 52	
Deposits in trust companies and banks on interest	613,449 08	
Total		615,223 74
Agents' balances, representing business written subsequent to October 1st, last		1,378,320 83
Agents' balances, representing business written prior to October 1st, last		28,417 91
Total ledger assets		$11,810,549 92

Non-Ledger Assets.

Interest accrued on mortgages	$6,150 09	
Interest accrued on bonds	62,065 07	
Rents accrued on company's property	16,477 45	
Total		84,692 61
Other non-ledger assets, due from other companies for reinsurance on losses already paid		54,362 30
Gross assets		$11,949,604 83

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1, 1911	$28,417 91	
Book value of ledger assets over market value, bonds and stocks	80,984 18	
Total		109,402 09
Total admitted assets		$11,840,202 74

LIABILITIES.

Losses adjusted and unpaid, due, $60,570.07; not yet due, $70,356.12	$130,926 19	
Losses in process of adjustment, or in suspense, plus $39,915 reserve for losses incurred prior to December 31st	675,453 49	
Losses resisted	93,428 88	
Total claims for losses	$899,808 56	
Deduct reinsurance	208,612 60	
Net amount of unpaid losses		$691,195 96
Unearned premiums at 50 per cent on fire risks running one year or less	$2,081,815 80	
Unearned premiums pro rata on fire risks running more than one year	5,246,121 20	
Unearned premiums at 50 per cent on inland navigation risks	161,868 97	
Unearned premiums at 100 per cent on marine risks	11,156 13	
Total unearned premiums as computed above		7,500,962 10
Amount reclaimable by the insured on perpetual fire insurance policies		91,655 92
Net premium reserve and all other liabilities, except capital, under the life insurance or any other special department		90,495 00
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		51,617 68
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		190,497 89
Commissions, brokerage and other charges due or to become due to agents and brokers		28,203 09
Return premiums, $36,727.19; reinsurance premiums, $121,288.87		158,016 06
Total liabilities, except capital stock		$8,802,643 70
Deposit cash capital	$450,000 00	
Surplus over all liabilities	2,587,559 04	
Surplus to policyholders		3,037,559 04
Total		$11,840,202 74

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$1,592,691,508	$16,643,375 50
Written during the year	1,023,442,517	10,851,653 88
Excess of original premiums over amount received for reinsurance	----------	73,182 58
Totals	$2,616,134,025	$27,568,211 96
Expired and terminated	1,025,708,162	11,093,266 89
In force at end of the year	$1,590,425,863	$16,474,945 07
Deduct amount reinsured	206,106,535	2,333,441 69
Net amount in force	$1,384,319,328	$14,141,503 38

	Marine and inland risks.	Premiums.
In force December 31, 1910	$8,629,606	$147,673 21
Written during the year	135,813,264	585,933 90
Totals	$144,442,870	$733,607 11
Expired and terminated	129,250,929	388,701 23
In force at end of the year	$15,191,941	$344,905 88
Deduct amount reinsured	646,795	10,011 81
Net amount in force	$14,545,146	$334,894 07

Perpetual risks not included above, $4,878,660; premiums on same, $105,724.54.

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$361,805,462	$4,163,631 61
More than one and not more than three years to run	666,558,195	6,063,497 68
More than three years to run	355,955,671	3,914,374 09
Perpetual risks	4,878,660	105,724 54
Net amount in force December 31, 1911	$1,389,197,988	$14,247,227 92

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$300,000 00
Losses incurred during the year: Fire, $3,789,541.19; marine and inland, $167,839.87	3,957,381 06

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.	Marine and inland.
Net risks written	$44,019,074 00	$2,997,532 00
Net premiums received	748,209 88	18,594 41
Net losses paid	219,078 43	1,528 00
Net losses incurred	225,064 43	1,628 00

RHODE ISLAND INSURANCE COMPANY.

Providence, R. I.

(Incorporated April, 1905. Commenced business in California May 27, 1908.)

GEORGE L. SHEPLEY, President. EMIL G. PIEPER, Secretary.

Agent for service in California: WM. ROMAINE, San Francisco.

CAPITAL.

Capital stock paid in cash	$300,000 00	
Amount of ledger assets December 31st of previous year		$1,077,585 28

INCOME.

	Fire.	
Gross premiums	$782,550 27	
Deduct gross amount paid for reinsurance, fire, $133,329.30; return premiums, fire, $166,846.23	300,175 53	
Total premiums (other than perpetuals)		$482,374 74
Interest on bonds and dividends on stocks	$38,979 59	
Interest from other sources	1,204 05	
Total interest		40,183 64
Increase in book value of ledger assets		8,906 25
Total income		$531,464 63
Total		$1,609,049 91

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$336,439 77	
Deduct amount received for salvage, fire, $4,174.90; reinsurance, fire, $86,479.96; discount, fire, $447.92	91,102 78	
Net amount paid for losses		$245,336 99
Expenses of adjustment, settlement of losses		3,375 33
Commissions or brokerage		138,754 12
Advertising, printing and stationery		420 73
Postage, telegrams, telephone and express		6 40

Legal expenses	$346 25
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses	3,483 87
State taxes on premiums	8,865 19
Insurance department licenses and fees	3,441 93
All other licenses, fees and taxes	2,451 96
Other disbursements: Auditing books, $150; commissions on investments, $212.50; surety bonds, $276	638 50
Dividends to stockholders	30,000 00
Total disbursements	$437,121 27
Balance	$1,171,928 64

LEDGER ASSETS.

Book value of bonds and stocks	$965,857 62
Deposits in trust companies and banks on interest	82,123 85
Agents' balances, representing business written subsequent to October 1st, last	123,847 17
Cash deposited with Philadelphia Underwriters' Association	100 00
Total ledger assets	$1,171,928 64

Non-Ledger Assets.

Interest due and accrued on bonds	$9,971 89	
Interest due and accrued on other assets	1,036 04	
Total		11,007 93
Reinsurance on losses paid		196 67
Gross assets		$1,183,133 24

Deduct Assets Not Admitted.

Book value of ledger assets over market value	8,277 62
Total admitted assets	$1,174,855 62

LIABILITIES.

Losses adjusted and unpaid, not due	$12,617 60	
Losses in process of adjustment, or in suspense	47,515 70	
Losses resisted	1,164 00	
Total claims for losses	$61,297 30	
Deduct reinsurance	6,732 05	
Net amount of unpaid losses		$54,565 25
Unearned premiums at 50 per cent on fire risks running one year or less	$176,470 28	
Unearned premiums pro rata on fire risks running more than one year	194,684 42	
Total unearned premiums as computed above		371,154 70
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		9,647 49
Commissions, brokerage and other charges due or to become due to agents and brokers		37,154 15
Total liabilities, except capital stock		$472,521 59
Cash capital	$300,000 00	
Surplus over all liabilities	402,334 03	
Surplus to policyholders		702,334 03
Total		$1,174,855 62

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$77,389,610	$698,825 97
Written during the year	88,084,664	782,550 27
Totals	$165,474,274	$1,481,376 24
Expired and terminated	71,885,081	630,987 33
In force at end of the year	$93,589,193	$850,388 91
Deduct amount reinsured	17,667,123	165,312 92
Net amount in force	$75,922,070	$685,075 99

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$50,000 00
Losses incurred during the year: Fire	260,264 31

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$724,480 00
Less	84,750 00
Net risks written	639,730 00
Gross premiums received	6,953 50
Less	900 72
Net premiums received	6,052 78
Net losses paid	5,783 34
Net losses incurred	5,346 96

UNITED STATES BRANCH OF THE SCOTTISH UNION AND NATIONAL INSURANCE COMPANY.

Edinburgh, Scotland.

(Incorporated 1824. Commenced business in California, 1880.)

James H. Brewster, United States Manager.

Agent for service in California: H. W. Fores, San Francisco.

CAPITAL.

Capital deposit	$200,000 00	
Amount of ledger assets December 31st of previous year		$5,460,073 47

INCOME.

	Fire.	
Gross premiums	$3,703,309 46	
Deduct gross amount paid for reinsurance, $918,396.57; return premiums, $649,658.29	1,568,054 86	
Total premiums (other than perpetuals)		$2,135,254 60
Interest on mortgage loans	$14,444 04	
Interest on bonds and dividends on stocks	200,136 04	
Interest from other sources	2,625 16	
Rents, including company's occupancy of its own buildings	2,431 85	
Total interest and rents		219,637 09
Received from home office		29,045 00
Agents' balances previously charged off		25 00
Total income		$2,383,961 69
Total		$7,844,035 11

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$1,716,507 72	
Deduct amount received for salvage, fire, $11,328.89; reinsurance, fire, $476,651.30; discount, fire, $727.79	488,707 98	
Net amount paid for losses		$1,227,799 74
Expenses of adjustment, settlement of losses		24,939 47
Commissions or brokerage		465,140 72
Allowances to local agencies for miscellaneous agency expenses		11,429 63
Salaries and expenses of special and general agents		86,372 03
Salaries, fees and other charges of officers, directors, trustees, agents and employees		93,049 47
Rents, including company's occupancy of its own buildings		6,497 83
Advertising, printing and stationery		19,190 43
Postage, telegrams, telephone and express		16,442 04
Legal expenses		1,169 65
Furniture and fixtures		835 52
Maps, including corrections		6,562 74
Underwriters' boards and tariff associations		33,142 96
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		26,781 68
Inspections and surveys		4,419 63
Repairs and expenses on real estate		1,038 99
Taxes on real estate		578 80
State taxes on premiums		39,681 75
Insurance department licenses and fees		11,310 39
All other licenses, fees and taxes: Federal corporation tax, $2,204.71; municipal license, $7,410.45		9,615 16
Mercantile reports		1,198 00
Office supplies		216 64
Premiums on fidelity bonds		760 00
Safe deposit box		450 00
Subscriptions		1,199 25
Remitted to home office		252,197 37
Agents' balances charged off		38 66
Loss on sale or maturity of ledger assets		5,616 00
Decrease in book value of ledger assets		279,768 01
Total disbursements		$2,627,442 56
Balance		$5,216,592 55

LEDGER ASSETS.

Book value of real estate	$37,336 55
Mortgage loans on real estate	254,275 00
Book value of bonds and stocks	4,321,531 67
Deposits in trust companies and banks not on interest	7,033 35
Deposits in trust companies and banks on interest	204,038 35
Agents' balances, representing business written subsequent to October 1st, last	388,989 09
Agents' balances, representing business written prior to October 1st, last	3,388 54
Total ledger assets	$5,216,592 55

Total ledger assets		$5,216,592 55

Non-Ledger Assets.

Interest due and accrued on mortgages	$4,380 64	
Interest due and accrued on bonds	65,039 11	
Total		69,419 75
Market value of bonds and stocks over book value		26,199 58
Gross assets		$5,312,211 88

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$3,388 54	
Special deposits to secure liabilities in Virginia	50,925 00	
Total		54,313 54
Total admitted assets		$5,257,898 34

LIABILITIES.

Losses adjusted and unpaid, due and not due	$107,993 78	
Losses in process of adjustment, or in suspense	192,275 73	
Losses resisted	14,901 00	
Total claims for losses	$315,170 51	
Deduct reinsurance	98,980 43	
Net amount of unpaid losses		$216,190 08
Unearned premiums at 50 per cent on fire risks running one year or less	$678,227 72	
Unearned premiums pro rata on fire risks running more than one year	1,345,260 83	
Total unearned premiums as computed above		2,023,488 55
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		10,000 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		30,000 00
Total		$2,279,678 63
Less liabilities secured by special deposits in Virginia: Losses, $2,464; unearned premiums, $37,392.14		39,856 14
Total liabilities, except capital stock		$2,239,822 49
Cash deposit	$200,000 00	
Surplus over all liabilities	2,818,075 85	
Surplus to policyholders		3,018,075 85
Total		$5,257,898 34

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$489,853,849	$4,740,317 74
Written during the year	382,921,269	3,703,309 46
Excess of original premiums over amount received for reinsurance	----------	2,667 85
Totals	$872,775,118	$8,446,295 05
Expired and terminated	336,155,760	3,312,044 09
In force at end of the year	$536,619,358	$5,134,250 96
Deduct amount reinsured	144,892,823	1,281,669 07
Net amount in force	$391,726,535	$3,852,581 89

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$193,356,513	$1,988,246 29
More than one and not more than three years to run	169,158,097	1,506,988 89
More than three years to run	29,211,925	357,346 71
Net amount in force December 31, 1911	$391,726,535	$3,852,581 89

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$200,000 00
Losses incurred during the year: Fire, $1,214,283.64; tornado, $511.64	1,214,795 28

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$15,261,886 00
Less	5,270,555 00
Net risks written	9,991,331 00
Gross premiums received	225,163 44
Less	65,130 51
Net premiums received	160,032 93
Net losses paid	24,442 95
Net losses incurred	35,194 76

SECURITY INSURANCE COMPANY.

New Haven, Conn.

(Incorporated May, 1841. Commenced business in California 1905.)

JOHN W. ALLING, President. VICTOR ROTH, Secretary.

Agent for service in California: E. E. POTTER, San Francisco, Cal.

CAPITAL.

Capital stock paid in cash	$1,000,000 00	
Amount of ledger assets December 31st of previous year		$3,039,926 43
Increase of paid-up capital during year		300,000 00
Extended at		$3,339,976 43

INCOME.

	Fire.	
Gross premiums	$2,725,963 37	
Deduct gross amount paid for reinsurance, fire, $478,312.95; return premiums, fire, $484,339.84	910,652 79	
Total premiums (other than perpetuals)		$1,815,310 58
Interest on mortgage loans	$8,044 71	
Interest on collateral loans	4,522 99	
Interest on bonds and dividends on stocks	86,646 00	
Interest from other sources	23 02	
Rents, including company's occupancy of its own buildings	8,000 00	
Total interest and rents		107,236 72
Refund expenses on real estate, etc., insurance rate reduction		80 18
Proceeds from sale of new stock		300,061 07
Old premium notes, $14.50; borrowed money, $140,000		140,014 50
Refund internal revenue tax on New York Bank stock		172 77
Profit on sale or maturity of ledger assets		11,971 87
Total income		$2,374,847 69
Total		$5,714,774 12

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$1,136,941 16	
Deduct amount received for salvage, fire, $538,107; reinsurance, fire, $209,712.78; discount, fire, $1,458.61	216,552 46	
Net amount paid for losses		$920,388 70
Expenses of adjustment, settlement of losses		21,106 63
Commissions or brokerage		388,921 41
Allowances to local agencies for miscellaneous agency expenses		17,976 87
Salaries and expenses of special and general agents		78,235 05
Salaries, fees and other charges of officers, directors, trustees, agents and employees		102,928 73
Rents, including company's occupancy of its own buildings		11,500 78
Advertising, printing and stationery		23,982 60
Postage, telegrams, telephone and express		14,470 96
Legal expenses		1,255 33
Furniture and fixtures		9,348 83
Maps, including corrections		7,127 55
Underwriters' boards and tariff associations		12,939 65
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		13,892 25
Inspections and surveys		12,076 01
Taxes on real estate		1,192 01
State taxes on premiums		28,286 49
Insurance department licenses and fees		10,705 38
All other licenses, fees and taxes		19,768 42
General expenses		10,886 20
Interest on borrowed money		1,051 11
Interest on payments of new stock		4,034 04
Settlement of claim, etc., personal injury		100 00
Borrowed money		140,000 00
Interest and dividends to stockholders		84,000 00
Agents' balances charged off		374 44
Total disbursements		$1,936,549 44
Balance		$3,778,224 68

LEDGER ASSETS.

Book value of real estate	$195,230 40
Mortgage loans on real estate	257,200 00
Loans secured by pledge of bonds, stocks or other collaterals	125,450 00
Book value of bonds and stocks	2,730,532 18
Cash in office	14,184 30
Deposits in trust companies and banks not on interest	127,114 32
Agents' balances, representing business written subsequent to October 1st, last	311,760 59
Agents' balances, representing business written prior to October 1st, last	1,043 39
Bills receivable taken for fire risks	13,013 21
Cash in hands of special agents (advance)	800 00
Cash deposited with Philadelphia Underwriters' Association	100 00
Due from reinsuring companies on paid losses (schedule)	1,796 29
Total ledger assets	$3,778,224 68

Non-Ledger Assets.

Interest due and accrued on mortgages	$2,557 38	
Interest due and accrued on bonds	34,186 59	
Interest due and accrued on collateral loans	735 99	
Total		37,479 96
Market value of real estate over book value		25,794 60
Market value of bonds and stocks over book value		76,951 07
Gross assets		$3,918,450 31

Amount brought forward		$3,918,450 31

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$1,043 39	
Bills receivable, past due, taken for marine, inland and fire risks	1,286 55	
Total		$2,329 94
Total admitted assets		$3,916,120 37

LIABILITIES.

Losses adjusted and unpaid, due and not due	$63,342 19	
Losses in process of adjustment, or in suspense	166.313 31	
Losses resisted	23,627 59	
Total claims for losses	$253,283 09	
Deduct reinsurance	59,241 46	
Net amount of unpaid losses		$194,041 63
Unearned premiums at 50 per cent on fire risks running one year or less	$509,192 90	
Unearned premiums pro rata on fire risks running more than one year	1,235,090 31	
Total unearned premiums as computed above		1,744,283 21
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		4,275 47
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		30,000 00
Interest accrued on payment for new stock		3,232 75
Total liabilities, except capital stock		$1,975,833 06
Cash capital	$1,000.000 00	
Surplus over all liabilities	940,287 31	
Surplus to policyholders		1,940,287 31
Total		$3,916,120 37

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$304,328,263	$3,358,563 49
Written during the year	235,985,944	2,725,963 37
Totals	$540,314,207	$6,084,526 86
Expired and terminated	181,827,756	2,165,737 56
In force at end of the year	$358,486,451	$3.918.789 30
Deduct amount reinsured	52,585,445	633,329 30
Net amount in force	$305,901,006	$3,285,460 00

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$80,241,153	$1,018,385 79
More than one and not more than three years to run	156,606,690	1,436,724 69
More than three years to run	69,053,163	830,349 52
Net amount in force December 31, 1911	$305,901,006	$3,285,460 00

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$280,000 00
Losses incurred during the year: Fire	935,481 09
Amount loaned to officers and directors	55,000 00
Amount loaned to stockholders not officers	152,950 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Net risks written	$6,427,925 00
Net premiums received	108.555 15
Net losses paid	18.940 60
Net losses incurred	20,222 51

UNITED STATES BRANCH OF THE SOVEREIGN FIRE INSURANCE COMPANY.

Toronto, Canada.

(Incorporated January 20, 1906. Commenced business in California June 20, 1908.)

H. S. Wilson, United States Manager.

Agent for service in California: C. J. Stovel, San Francisco.

CAPITAL.

Capital stock deposited	$200,000 00	
Amount of ledger assets December 31st of previous year		$654,387 15

INCOME.

	Fire.	
Gross premiums	$714,244 81	
Deduct gross amount paid for reinsurance, fire, $163,321.76; return premiums, fire, $148,328.92	301,650 68	
Total premiums (other than perpetuals)		$402,594 13
Interest on bonds and dividends on stocks	$21,863 69	
Interest from other sources	411 46	
Total interest and rents		22,275 15
Received from head office	$123,703 91	
Received from Skandanavia on account of premium reserve	3,167 95	
Total receipts		126,871 86
Total income		$551,741 14
Total		$1,206,128 29

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$308,297 99	
Deduct amount received for salvage, fire, $2,207.52; reinsurance, fire, $52,805; discount, fire, $646.31	55,658 83	
Net amount paid for losses		$252,639 16
Expenses of adjustment, settlement of losses		3,919 73
Commissions or brokerage		104,508 08
Salaries and expenses of special and general agents		13,711 17
Salaries, fees and other charges of officers, directors, trustees, agents and employees		21,241 40
Rents, including company's occupancy of its own buildings		2,857 50
Advertising, printing and stationery		4,536 41
Postage, telegrams, telephone and express		2,973 77
Furniture and fixtures		2,647 70
Maps, including corrections		4,541 98
Underwriters' boards and tariff associations		1,465 79
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		728 24
State taxes on premiums		3,355 28
Insurance department licenses and fees		2,147 42
All other licenses, fees and taxes		499 60
Remitted to head office		168,550 80
Sundry expenses		3,734 93
Subscriptions		134 83
Trustees		500 00
Mercantile agencies		580 70
Auditing expenses		916 25
Agents' balances charged off		406 22
Loss on sale or maturity of ledger assets		3,819 21
Total disbursements		$601,065 23
Balance		$605,063 06

LEDGER ASSETS.

Book value of bonds and stocks		$512,919 86
Cash in office		1,679 09
Deposits in trust companies and banks on interest		15,601 94
Agents' balances, representing business written subsequent to October 1st, last		70,694 39
Agents' balances, representing business written prior to October 1st, last		4,067 78
Deposited with Philadelphia Underwriters' Association		100 00
Total ledger assets		$605,063 06

Non-Ledger Assets.

Interest due and accrued on bonds	$5,542 08	
Interest due and accrued on other assets	109 38	
Total		5,651 46
Gross assets		$610,714 52

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$4,067 78	
Bonds	7,669 06	
Total		11,736 84
Total admitted assets		$598,977 68

LIABILITIES.

Losses adjusted and unpaid, due and not due	$11,621 90	
Losses in process of adjustment, or in suspense	64,490 83	
Total claims for losses	$76,112 73	
Deduct reinsurance	6,332 46	
Net amount of unpaid losses		$69,780 27
Unearned premiums at 50 per cent on fire risks running one year or less	$157,957 91	
Unearned premiums pro rata on fire risks running more than one year	73,849 59	
Total unearned premiums as computed above		231,807 50
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		1,000 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		5,000 00
Reinsurance premiums		8,469 71
London Mutual paid balance twice		2,759 15
Total liabilities, except capital		$318,816 63
Cash capital	$200,000 00	
Surplus over all liabilities	80,161 05	
Surplus to policyholders		280,161 05
Total		$598,977 68

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$33,050,236	$307,526 14
Written during the year	35,883,110	714,244 81
Excess of original premiums over amount received for reinsurance		54,410 02
Totals	$68,933,346	$1,076,180 97
Expired and terminated	17,324,597	487,282 51
In force at end of the year	$51,608,749	$588,898 46
Deduct amount reinsured	13,701,059	150,318 29
Net amount in force	$37,907,690	$438,580 17

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$27.709.323	$315.915 83
More than one and not more than three years to run	8.330.777	98.908 81
More than three years to run	1.867.590	23.755 53
Net amount in force December 31, 1911	$37.907.690	$438.580 17

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$45.000 00
Losses incurred during the year: Fire	296.906 70

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$13.492.355 00
Less	3.208.350 00
Net risks written	10.284.005 00
Gross premiums received	129.374 16
Less	30.698 80
Net premiums received	98.675 36
Net losses paid	60.347 84
Net losses incurred	88.923 58

SPRINGFIELD FIRE AND MARINE INSURANCE COMPANY.

Springfield, Mass.

(Incorporated 1849. Commenced business in California April 6, 1881.)

A. W. Damon, President. W. J. Mackay, Secretary.

Agent for service in California: Dornin & Dornin, San Francisco.

CAPITAL.

Capital stock paid in cash	$2.000.000 00	
Amount of ledger assets December 31st of previous year		$9.331.701 72

INCOME.

	Fire.	
Gross premiums	$7.141.174 76	
Deduct gross amount paid for reinsurance, fire, $99,627.81; return premiums, fire, $996,918.55	5.244.628 40	
Total premiums (other than perpetuals)		$5.244.628 40
Interest on mortgage loans	$61.320 88	
Interest on collateral loans	383 32	
Interest on bonds and dividends on stocks	329.032 22	
Interest from other sources	3.220 23	
Rents, including company's occupancy of its own buildings	15.000 00	
Total interest and rents		408.956 65
Recovery on Portland, Ore., real estate charged profit and loss, 1907		300 00
Agents' balances previously charged off		2.191 33
Profit on sale or maturity of ledger assets		15.472 40
Total income		$5.671.548 78
Total		$1.500.325 50

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$3,728,385 11	
Deduct amount received for salvage, fire, $27,920.32; reinsurance, fire, $689,389.37; discount, fire, $199.40	717,509 09	
Net amount paid for losses		$3,010,876 02
Expenses of adjustment, settlement of losses		38,782 43
Commissions or brokerage		993.406 76
Allowances to local agencies for miscellaneous agency expenses		32.233 05
Salaries and expenses of special and general agents		286,869 34
Salaries, fees and other charges of officers, directors, trustees, agents and employees		300.591 30
Rents, including company's occupancy of its own buildings		31,900 08
Advertising, printing and stationery		72.725 96
Postage, telegrams, telephone and express		24.968 65
Legal expenses		6,143 75
Furniture and fixtures		5,243 79
Maps, including corrections		16,871 77
Underwriters' boards and tariff associations		53,057 71
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		34,985 30
Inspections and surveys		37.017 74
Repairs and expenses on real estate		960 49
Taxes on real estate		4.644 75
State taxes on premiums		86.025 57
Insurance department licenses and fees		24.326 79
All other licenses, fees and taxes		23,748 17
Mercantile reports, bonds, fuel, lights and all other expenses	$11,875 82	
Interest paid Munich Reinsurance Company per contract	9,278 40	
Interest and expenses		21,154 22
Interest and dividends to stockholders		200.000 00
Agents' balances charged off		1,796 03
Loss on sale or maturity of ledger assets		1,418 50
Decrease in book value of ledger assets		9,062 80
Total disbursements		$5.318.810 97
Balance		$9,684.439 53

LEDGER ASSETS.

Book value of real estate	$300.000 00
Mortgage loans on real estate	1.440.595 00
Book value of bonds and stocks	6,544.441 47
Cash in office	877 71
Deposits in trust companies and banks not on interest	376.796 88
Deposits in trust companies and banks on interest	134.899 87
Agents' balances, representing business written subsequent to October 1st, last	879.366 05
Agents' balances, representing business written prior to October 1st, last	7.462 55
Total ledger assets	$9,684,439 53

Total ledger assets		$9,684,439 53

Non-Ledger Assets.

Interest due and accrued on mortgages	$31,311 36	
Interest due and accrued on bonds	18,423 28	
Total		49,734 64
Market value of bonds and stocks over book value		681,136 03
Gross assets		$10,415,310 20

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last		7,462 55
Total admitted assets		$10,407,847 65

LIABILITIES.

Losses adjusted and unpaid, due and not due	$80,048 03	
Losses in process of adjustment, or in suspense	423,317 24	
Losses resisted	33,747 60	
Total claims for losses	$537,112 87	
Deduct reinsurance	85,897 23	
Net amount of unpaid losses		$451,215 64
Unearned premiums at 50 per cent on fire risks running one year or less	$1,749,458 64	
Unearned premiums pro rata on fire risks running more than one year	3,041,339 76	
Total unearned premiums as computed above		4,790,798 40
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		8,526 76
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		50,000 00
Funds held for Munich Reinsurance Company under treaty		231,960 04
Interest accrued on above		4,639 20
Total liabilities, except capital stock		$5,537,140 04
Cash capital	$2,000,000 00	
Surplus over all liabilities	2,870,707 61	
Surplus to policyholders		4,870,707 61
Total		$10,407,847 65

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1911	$847,296,982	$9,781,533 90
Written during the year	607,828,011	7,141,174 76
Totals	$1,455,124,993	$16,922,708 66
Expired and terminated	551,651,339	6,642,785 05
In force at end of the year	$903,473,654	$10,279,923 61
Deduct amount reinsured	90,041,195	1,038,592 22
Net amount in force	$813,432,459	$9,241,331 39

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$276,755,770	$3,498,917 27
More than one and not more than three years to run	360,105,397	3,661,660 27
More than three years to run	176,571,292	2,080,753 85
Net amount in force December 31, 1911	$813,432,459	$9,241,331 39

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$100,000 00
Losses incurred during the year: Fire, $294,875.79; tornado, $58,145.67	3,006,021 46
Amount loaned to stockholders not officers	10,000 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$30,100,105 89
Less	8,334,894 74
Net risks written	21,765,211 15
Gross premiums received	498,339 34
Less	123,274 34
Net premiums received	375,065 00
Net losses paid	106,645 22
Net losses incurred	117,934 26

STANDARD FIRE INSURANCE COMPANY.

Hartford, Conn.

(Incorporated July 6, 1905. Commenced business in California November, 1911.)

M. L. HEWES, President. H. B. ANTHONY, Secretary.

Agent for service in California: C. C. KINNEY, San Francisco.

CAPITAL.

Capital stock paid in cash	$500,000 00	
Amount of ledger assets December 31st of previous year		$1,034,352 86

INCOME.

	Fire.	
Gross premiums	$446,793 81	
Deduct gross amount paid for reinsurance, fire, $79,091.69; return premiums, fire, $72,432.71	151,524 30	
Total premiums (other than perpetuals)		$295,269 41
Interest on bonds and dividends on stocks	$40,335 15	
Interest from other sources	779 57	
Total interest and rents		41,114 72
Total income		$336,384 13
Total		$1,370,736 99

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$128,029 31	
Deduct amount received for salvage, fire, $1,897.59; reinsurance, fire, $29,077.57	30,975 16	
Net amount paid for losses		$97,054 15
Expenses of adjustment, settlement of losses		1,515 79
Commissions or brokerage		62,297 13
Allowances to local agencies for miscellaneous agency expenses		588 29
Salaries and expenses of special and general agents		23,468 11
Salaries, fees and other charges of officers, directors, trustees, agents and employees		18,123 11
Traveling expense, home office		2,019 03
Rents, including company's occupancy of its own buildings		1,533 36
Advertising, printing and stationery		6,247 67
Postage, telegrams, telephone and express		2,993 62

Legal expenses	$581 50
Furniture and fixtures	1,123 14
Maps, including corrections	3,863 95
Underwriters' boards and tariff associations	1,974 16
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses	1,697 46
Inspections and surveys	3,447 72
State taxes on premiums	4,026 20
Insurance department licenses and fees	3,744 50
All other licenses, fees and taxes	78 25
Capital stock tax	9,000 00
Total disbursements	$245,377 14
Balance	$1,125,359 85

LEDGER ASSETS.

Book value of bonds and stocks	$1,005,516 68
Cash in office	222 91
Deposits in trust companies and banks on interest	52,260 79
Agents' balances, representing business written subsequent to October 1st, last	67,335 17
Agents' balances, representing business written prior to October 1st, last	24 30
Total ledger assets	$1,125,359 85

Non-Ledger Assets.

Interest due and accrued on bonds	10,880 96
Other non-ledger assets	10,000 00
Gross assets	$1,146,240 81

Deduct Assets Not Admitted.

Furniture, fixtures and safes, including maps	$10,000 00	
Agents' balances, representing business written prior to October 1st, last	24 30	
Book value of ledger assets over market value	15,837 68	
Total		25,861 98
Total admitted assets		$1,120,378 83

LIABILITIES.

Losses in process of adjustment, or in suspense	$17,258 72	
Deduct reinsurance	14 22	
Net amount of unpaid losses		$17,244 50
Unearned premiums at 50 per cent on fire risks running one year or less	$95,124 08	
Unearned premiums pro rata on fire risks running more than one year	121,305 60	
Total unearned premiums as computed above		216,429 68
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		928 65
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		5,000 00
Total liabilities, except capital stock		$239,602 83
Cash capital	$500,000 00	
Surplus over all liabilities	380,776 00	
Surplus to policyholders		880,776 00
Total		$1,120,378 83

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$20,309,166	$183,848 33
Written during the year	50,284,520	446,793 81
Totals	$70,593,686	$630,642 14
Expired and terminated	20,660,517	192,083 48
In force at end of the year	$49,933,169	$438,558 66
Deduct amount reinsured	9,596,085	87,517 90
Net amount in force	$40,337,084	$351,040 76

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$20,508,341	$190,248 16
More than one and not more than three years to run	15,364,827	113,457 42
More than three years to run	4,463,916	47,335 18
Net amount in force December 31, 1911	$40,337,084	$351,040 76

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$75,000 00
Losses incurred during the year: Fire	104,901 46

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$428,509 00
Less	40,100 00
Net risks written	388,409 00
Gross premiums received	6,135 35
Less	772 89
Net premiums received	5,362 46
Net losses paid	500 00
Net losses incurred	537 50

UNITED STATES BRANCH OF THE STATE ASSURANCE COMPANY, LIMITED.

Liverpool, England.

(Incorporated April 10, 1891. Commenced business in California November 1, 1899.)

JAMES H. BREWSTER, United States Manager.

Agent for service in California: H. W. FORES, San Francisco.

CAPITAL.

Cash deposit	$200,000 00	
Amount of ledger assets December 31st of previous year		$467,822 38

INCOME.

	Fire.	
Gross premiums	$251,238 00	
Deduct gross amount paid for reinsurance, fire, $84,418.74; return premiums, fire, $45,822.14	130,240 88	
Total premiums (other than perpetuals)		$120,997 12
Interest on bonds and dividends on stocks	$15,535 00	
Interest from other sources	235 17	
Total interest		15,770 17
Agents' balances previously charged off		2 18
Total income		$136,769 47
Total		$604,591 85

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$130,401 16	
Deduct amount received for salvage, fire, $1,822.93; reinsurance, fire, $63,669.83; discount, fire, $136.00	65,628 76	
Net amount paid for losses		$64,772 40
Expenses of adjustment, settlement of losses		1,182 09
Commissions or brokerage		27,397 88
Allowances to local agencies for miscellaneous agency expenses		268 36
Salaries and expenses of special and general agents		991 77
Salaries, fees and other charges of officers, directors, trustees, agents and employees		5,143 59
Rents, including company's occupancy of its own buildings		417 23
Advertising, printing and stationery		1,419 38
Postage, telegrams, telephone and express		910 39
Legal expenses		277 37
Furniture and fixtures		65 40
Maps, including corrections		90 00
Underwriters' boards and tariff associations		2,166 03
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		1,811 36
Inspections and surveys		101 51
State taxes on premiums		2,546 14
Insurance department licenses and fees		2,281 67
Municipal license		555 80
Office supplies		40 03
Premiums on fidelity bonds		260 00
Rent of safe		25 00
Remitted to home office		16,295 85
Total disbursements		$129,019 25
Balance		$475,572 60

LEDGER ASSETS.

Book value of bonds and stocks		$421,223 65
Deposits in trust companies and banks not on interest		2,316 32
Deposits in trust companies and banks on interest		21,075 47
Agents' balances, representing business written subsequent to October 1st, last		27,552 41
Agents' balances, representing business written prior to October 1st, last		3,404 75
Total ledger assets		$475,572 60

Non-Ledger Assets.

Interest due and accrued on bonds		3,921 66
Gross assets		$479,494 26

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$3,404 75	
Book value of ledger assets over market value, bonds and stocks	42,805 90	
Total		46,210 65
Total admitted assets		$433,283 61

LIABILITIES.

Losses adjusted and unpaid, due and not due	$4,657 58	
Losses in process of adjustment, or in suspense	13,424 11	
Losses resisted	2,734 15	
Total claims for losses	$20,815 84	
Deduct reinsurance	7,815 32	
Net amount of unpaid losses		$13,000 52
Unearned premiums at 50 per cent on fire risks running one year or less	$39,511 07	
Unearned premiums pro rata on fire risks running more than one year	66,781 91	
Total unearned premiums as computed above		106,292 98
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		1,500 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		2,500 00
Total liabilities, except capital stock		$123,293 50
Capital deposit	$200,000 00	
Surplus over all liabilities	109,990 11	
Surplus to policyholders		309,990 11
Total		$433,283 61

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$24,025,041	$289,229 57
Written during the year	21,439,125	251,238 00
Totals	$45,464,166	$540,467 57
Expired and terminated	18,687,428	224,781 84
In force at end of the year	$26,776,738	$315,685 73
Deduct amount reinsured	9,694,065	119,639 80
Net amount in force	$17,082,673	$196,045 93

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$8,987,855	$103,482 79
More than one and not more than three years to run	6,573,623	72,255 00
More than three years to run	1,521,195	20,308 14
Net amount in force December 31, 1911	$17,082,673	$196,045 93

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$25,000 00
Losses incurred during the year: Fire	66,278 32

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$1,847,478 00
Less	835,866 00
Net risks written	1,011,612 00
Gross premiums received	25,285 61
Less	12,917 00
Net premiums received	12,368 61
Net losses paid	1,453 74
Net losses incurred	1,410 12

ST. PAUL FIRE AND MARINE INSURANCE COMPANY.

St. Paul, Minn.

(Incorporated May, 1865. Commenced business in California September 23, 1872.)

T. R. Bigelow, President. A. W. Perry, Secretary.

Agent for service in California: Christensen & Goodwin, San Francisco, Cal.

CAPITAL.

Capital stock paid in cash	$500,000 00	
Amount of ledger assets December 31st of previous year		$7,115,151 64

INCOME.

	Fire.	Marine and inland.	
Gross premiums	$5,513,848 90	$1,919,421 39	
Deduct gross amount paid for reinsurance, fire, $444,576.39; marine and inland, $496,950.30; return premiums, fire, $686,401.19; marine and inland, $229,477.54	1,130,977 58	726,427 84	
Total premiums (other than perpetuals)	$4,382,811 32	$1,192,993 55	$5,575,864 87
Interest on mortgage loans		$28,363 85	
Interest on bonds and dividends on stocks		243,347 81	
Interest from other sources		13,263 71	
Rents, including company's occupancy of its own buildings		19,137 47	
Total interest and rents			304,112 84
Reinsurance on losses previously charged off, $16.21; conscience money, $571.36			587 57
Increase in liabilities during the year on account of reinsurance treaties			24,348 08
Agents' balances previously charged off			329 05
Profit on sale or maturity of ledger assets			2,500 00
Total income			$5,907,742 41
Total			$13,022,894 05

DISBURSEMENTS.

	Fire.	Marine and inland.	
Gross amount paid for losses	$2,436,616 59	$1,150,458 58	
Deduct amount received for salvage, fire, $12,713.21; marine and inland, $61,511.18; reinsurance, fire, $280,868.78; marine and inland, $447,621.32; discount, fire, $1,696.14	295,278 13	509,132 50	
Net amount paid for losses	$2,141,338 46	$641,326 08	$2,782,664 54
Expenses of adjustment, settlement of losses			59,908 86
Commissions or brokerage			1,426,476 78
Allowance to local agencies for miscellaneous agency expenses			3,363 37
Salaries and expenses of special and general agents			173,720 91
Salaries, fees and other charges of officers, directors, trustees, agents and employees			95,998 03
Rents, including company's occupancy of its own buildings			13,133 90
Advertising, printing and stationery			42,307 87
Postage, telegrams, telephone and express			33,398 48
Legal expenses			9,536 77
Furniture and fixtures			2,542 97
Maps, including corrections			8,604 52
Underwriters' boards and tariff associations			11,202 42

Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses	$4,811 07
Inspections and surveys	17,043 56
Repairs and expenses on real estate	5,053 26
Taxes on real estate	5,137 20
State taxes on premiums	105,410 45
Insurance department licenses and fees	20,332 70
All other licenses, fees and taxes	17,029 39
Other disbursements	9,286 81
Interest and dividends to stockholders	60,000 00
Agents' balances charged off	325 34
Loss on sale or maturity of ledger assets	17,868 75
Total disbursements	$4,925,157 95
Balance	$8,097,736 10

LEDGER ASSETS.

Book value of real estate	$295,558 42
Mortgage loans on real estate	585,390 00
Book value of bonds and stocks	6,030,567 71
Cash in office	429 47
Deposits in trust companies and banks on interest	336,029 19
Agents' balances, representing business written subsequent to October 1st, last	560,959 95
Agents' balances, representing business written prior to October 1st, last	9,194 72
Bills receivable, taken for marine and inland risks	4,690 38
Bills receivable taken for fire risks	179,896 91
Other ledger assets, due from St. Louis Fire Insurance Company, secured by securities deposited under deed of trust	33,560 20
Due from Century Fire Insurance Company, secured by $22,143.65 farm notes not due	11,813 12
Due from reinsurance companies for return premiums	765 37
Due from reinsurance companies on losses paid	48,880 66
Total ledger assets	$8,097,736 10

Non-Ledger Assets.

Interest due and accrued on mortgages	$8,155 92	
Interest due and accrued on bonds	46,077 09	
Total		54,233 01
Gross assets		$8,151,969 11

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$9,194 72	
Bills receivable, past due, taken for marine, inland and fire risks	13,360 52	
Book value of ledger assets over market value	95,398 34	
Reinsurance premiums, collection doubtful	140 87	
Reinsurance losses paid, collection doubtful	1,009 97	
Special deposits to secure liabilities	215,180 00	
Total		334,284 42
Total admitted assets		$7,817,684 69

LIABILITIES.

Losses adjusted and unpaid, due and not due	$65,122 87	
Losses in process of adjustment, or in suspense	356,703 07	
Losses resisted	23,880 00	
Total claims for losses	$445,705 94	
Deduct reinsurance	48,617 32	
Net amount of unpaid losses		$397,088 62

Unearned premiums at 50 per cent on fire risks running one year or less	$935,849 00	
Unearned premiums pro rata on fire risks running more than one year	3,427,287 53	
Unearned premiums at 50 per cent on inland navigation risks	302,391 10	
Total unearned premiums as computed above		$4,665,527 63
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		90,000 00
Commissions, brokerage and other charges due or to become due to agents and brokers		6,497 57
Reinsurance premiums		24,348 08
Total		$5,183,461 90
Less liabilities secured by special deposits in Georgia: Losses, $178,680.58; unearned premiums, $11,001.08		189,581 66
Total liabilities, except capital stock		$4,993,880 24
Cash capital	$500,000 00	
Surplus over all liabilities	2,323,804 45	
Surplus to policyholders		2,823,804 45
Total		$7,817,684 69

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force on the 31st day of December, as per line 5 under this heading in last year's statement	$600,543,945	$7,716,327 29
Written or renewed during the year, per Income No. 5	414,355,853	5,288,736 78
Excess of original premiums over amount received for reinsurance	----------	225,112 12
Total	$1,014,899,798	$13,230,176 19
Deduct those expired and marked off as terminated	339,099,980	4,260,685 44
In force at the end of the year	$675,799,818	$8,969,490 75
Deduct amount reinsured	41,507,262	534,591 75
Net amount in force	$634,292,556	$8,434,899 00

	Marine and inland risks.	Premiums.
In force on the 31st day of December, as per line 5 under this heading in last year's statement	$21,271,095	$607,946 10
Written or renewed during the year, per Income No. 5	383,961,902	1,919,421 39
Total	$405,232,997	$2,527,367 49
Deduct those expired and marked off as terminated	381,580,346	1,811,705 81
In force at the end of the year	$23,652,651	$715,661 68
Deduct amount reinsured	2,570,510	110,879 48
Net amount in force	$21,082,141	$604,782 20

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$150,000 00
Losses incurred during the year: Fire, $2,169,682.48; marine and inland, $657,905.88	2,827,588 36

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.	Marine and inland.
Net risks written	$8,293,859 00	$10,164,211 00
Net premiums received	132,458 94	125,338 22
Net losses paid	40,600 37	87,746 87
Net losses incurred	39,751 64	87,941 79

SUN INSURANCE COMPANY.

New Orleans, La.

(Incorporated November, 1855. Commenced business in California July 29, 1909.)

Fergus G. Lee, President. William P. Maus, Secretary.

Agent for service in California: Wayman & Henry, San Francisco.

CAPITAL.

Capital stock paid in cash	$500,000 00	
Amount of ledger assets December 31st of previous year		$1,309,678 21

INCOME.

	Fire.	Marine and inland.	
Gross premiums	$907,032 21	$16,547 71	
Deduct gross amount paid for reinsurance, fire, $117,021,16; marine and inland, $3,266.81; return premiums, fire, $185,100.27; marine and inland, $97.12	302,121 43	3,363 93	
Total premiums (other than perpetuals)	$604,910 78	$13,183 78	$618,094 56
Interest on mortgage loans		$139 64	
Interest on bonds and dividends on stocks		42,241 95	
Interest from other sources, bills receivable		1 50	
Rents, including company's occupancy of its own buildings		3,000 00	
Total interest and rents			45,383 09
From other sources, bills payable			120,000 00
Profit on sale or maturity of ledger assets			85 00
Total income			$783,562 65
Total			$2,093,240 86

DISBURSEMENTS.

	Fire.	Marine and inland.	
Gross amount paid for losses	$466,823 93	$9,992 93	
Deduct amount received for salvage, fire, $1,660.05; marine and inland, $834.59; reinsurance, fire, $65,646.09; marine and inland, $1,126.15	67,306 14	1,960 74	
Net amount paid for losses	$399,517 79	$8,032 19	$407,549 98
Expenses of adjustment, settlement of losses			7,692 78
Commissions or brokerage			166,487 31
Salaries and expenses of special and general agents			8,829 70
Salaries, fees and other charges of officers, directors, trustees, agents and employees			31,278 31
Rents, including company's occupancy of its own buildings			3,000 00
Advertising, printing and stationery			7,774 39
Postage, telegrams, telephone and express			2,750 36
Legal expenses			500 04
Maps, including corrections			696 18
Underwriters' boards and tariff associations			5,479 09
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses			1,679 52
Inspections and surveys			764 88
Repairs and expenses on real estate			225 15
Taxes on real estate			1,138 00
State taxes on premiums			6,779 87

Insurance department licenses and fees		$6,237 06
All other licenses, fees and taxes		8,857 09
Other disbursements		105,474 08
Interest and dividends to stockholders		25,240 00
Total disbursements		$798,433 79
Balance		$1,294,807 07

LEDGER ASSETS.

Book value of real estate		$40,000 00
Mortgage loans on real estate		2,650 00
Book value of bonds and stocks (schedule D)		1,202,434 57
Cash in office		62 41
Deposits in trust companies and banks not on interest		10,088 80
Agents' balances, representing business written subsequent to October 1st, last		39,121 29
Agents' balances, representing business written prior to October 1st, last		450 00
Total ledger assets		$1,294,807 07

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$450 00	
Book value of ledger assets over market value: Bonds, $19,019.57; stocks, $65,660.00	84,679.57	
Total		85,129 57
Total admitted assets		$1,209,677 50

LIABILITIES.

Losses adjusted and unpaid, due and not due	$4,358 83	
Losses in process of adjustment, or in suspense	43,500 76	
Losses resisted	637 50	
Total claims for losses	$48,497 09	
Deduct reinsurance	8,116 50	
Net amount of unpaid losses		$40,380 59
Unearned premiums at 50 per cent on fire risks running one year or less	$195,585 04	
Unearned premiums pro rata on fire risks running more than one year	281,925 89	
Total unearned premiums as computed above		477,510 93
Dividends declared and unpaid to stockholders		15,290 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		2,000 00
Reinsurance premiums		814 67
Due and to become due for borrowed money		47,000 00
Total		$582,996 19
Less liabilities secured by special deposits in Georgia, losses, $3,123; unearned premiums, $27,432.17		10,000 00
Total liabilities, except capital stock		$572,996 19
Cash capital	$500,000 00	
Surplus over all liabilities	126,681 31	
Surplus to policyholders		626,681 31
Total		$1,199,677 50

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force on the 31st day of December, as per line 5 under this heading in last year's statement	$79,031,185	$1,114,100 87
Written or renewed during the year, per Income No. 5	61,946,237	907,032 21
Total	$140,977,422	$2,021,133 08
Deduct those expired and marked off as terminated	63,535,994	926,612 08
In force at end of the year	$77,441,428	$1,094,521 00
Deduct amount reinsured (schedule required), $160,574.48	9,469,399	160,574 48
Net amount in force	$67,972,029	$933,946 52

	Marine and inland risks.	Premiums.
Written or renewed during the year, per Income No. 5	$4,887,330	$16,547 71
Deduct those expired and marked off as terminated	4,887,330	16,547 71

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$500,000 00
Losses incurred during the year: Fire, $385,291.46; marine and inland, $5,126.88	390,418 34

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$3,331,206 00
Less	1,097,421 00
Net risks written	2,233,785 00
Gross premiums received	52,829 69
Less	15,049 30
Net premiums received	37,780 39
Net losses paid	4,853 62
Net losses incurred	6,058 47

UNITED STATES BRANCH OF THE SUN INSURANCE OFFICE.

London, England.

(Incorporated A. D. 1710. Commenced business in California August 1, 1882.)

J. J. GUILL, Manager in United States, New York, N. Y.

Agent for service in California: WAYMAN & HENRY, San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year	$4,350,461 59

INCOME.

	Fire.	
Gross premiums	$4,162,757 37	
Deduct gross amount paid for reinsurance, fire, $642,354.07; return premiums, fire, $672,610.98	1,314,967 00	
Total premiums (other than perpetuals)		$2,847,790 37
Interest on mortgage loans	$1,250 00	
Interest on bonds and dividends on stocks	141,558 09	
Interest from other sources	6,017 80	
Rents, including company's occupancy of its own buildings	23,663 00	
Total interest and rents		172,488 89
Received from home office		118,747 90
Profit on sale or maturity of ledger assets		2,918 25
Total income		$3,141,945 41
Total		$7,492,407 00

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$1,828,874 78	
Deduct amount received for salvage, fire, $18,714.45; reinsurance, fire, $353,936.69; discount, fire, $2,043.62	374,694 82	
Net amount paid for losses		$1,454,179 96
Expenses of adjustment, settlement of losses		35,544 65
Commissions or brokerage		628,051 80
Allowances to local agencies for miscellaneous agency expenses		6,981 06
Salaries and expenses of special and general agents		79,391 57
Salaries, fees and other charges of officers, directors, trustees, agents and employees		152,140 05
Rents, including company's occupancy of its own buildings		25,059 31
Advertising, printing and stationery		37,832 09
Postage, telegrams, telephone and express		19,964 23
Legal expenses		2,312 48
Furniture and fixtures		1,831 67
Maps, including corrections		8,229 25
Underwriters' boards and tariff associations		30,538 21
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		25,002 57
Inspections and surveys		28,741 42
Repairs and expenses on real estate		6,660 83
Taxes on real estate		5,030 77
State taxes on premiums		53,560 00
Insurance department licenses and fees		15,776 60
All other licenses, fees and taxes		16,739 51
Remitted to home office		359,772 98
Agents' balances charged off		986 44
Loss on sale or maturity of ledger assets		660 31
Decrease in book value of ledger assets		20,000 00
Total disbursements		$3,014,987 76
Balance		$4,477,419 24

LEDGER ASSETS.

Book value of real estate	$270,637 79
Mortgage loans on real estate	25,000 00
Book value of bonds and stocks	3,425,709 40
Cash in office	710 93
Deposits in trust companies and banks on interest	277,800 44
Agents' balances, representing business written subsequent to October 1st, last	474,096 19
Agents' balances, representing business written prior to October 1st, last	3,464 49
Total ledger assets	$4,477,419 24

Non-Ledger Assets.

Interest due and accrued on mortgages	$208 33	
Interest due and accrued on bonds	42,426 61	
Total		42,634 94
Market value of real estate over book value		6,862 21
Other non-ledger assets: Uncollected reinsurance on paid losses, $1,523.62; contingent commissions, $2,505.04		4,028 66
Gross assets		$4,530,945 05

Amount brought forward		$4,530,945 05

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$3,464 49	
Book value of ledger assets over market value: Bonds and stocks	8,259 83	
Special deposits to secure liabilities in Virginia, $10,360; Georgia, $11,100	21,460 00	
Total		33,184 32
Total admitted assets		$4,497,760 73

LIABILITIES.

Losses adjusted and unpaid, due and not due	$87,860 67	
Losses in process of adjustment, or in suspense	202,731 63	
Losses resisted	5,900 00	
Total claims for losses	$296,492 30	
Deduct reinsurance	31,571 71	
Net amount of unpaid losses		$264,920 59
Unearned premiums at 50 per cent on fire risks running one year or less	$957,215 53	
Unearned premiums pro rata on fire risks running more than one year	1,817,710 55	
Total unearned premiums as computed above		2,774,926 08
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		5,995 19
Estimated amount hereafter payable for federal, state and other taxes bases upon the business of the year of this statement		66,211 87
Return premiums, $1,500.00; reinsurance premiums $40,442.79		41,942 79
Contingent commissions		21,044 25
Total		$3,175,040 77
Less liabilities secured by special deposits in Virginia and Georgia: Losses, $16,462.00; unearned premiums, $45,390.17		61,521 17
Total liabilities, except capital stock		$3,113,188 60
Surplus to policyholders		1,384,572 12
Total		$4,497,760 73

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$534,300,025	$5,621,767 74
Written during the year	384,956,062	4,162,757 37
Excess of original premiums over amount received for reinsurance	----------	2,015 39
Totals	$919,256,087	$9,786,540 50
Expired and terminated	350,974,850	3,850,501 79
In force at end of the year	$568,281,237	$5,936,038 71
Deduct amount reinsured	54,528,705	570,538 40
Net amount in force	$513,752,532	$5,365,500 31

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$167,876,187	$1,914,431 05
More than one and not more than three years to run	248,900,974	2,299,398 70
More than three years to run	96,975,371	1,151,670 56
Net amount in force December 31, 1911	$513,752,532	$5,365,500 31

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$100,000 00
Losses incurred during the year: Fire, $1,473,424.12; tornado, $283.04	1,473,707 16

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$23,241,068 00
Less	7,411,283 00
Net risks written	15,829,785 00
Gross premiums received	344,566 25
Less	89,606 71
Net premiums received	254,959 54
Net losses paid	45,326 89
Net losses incurred	56,788 20

UNITED STATES BRANCH OF THE SVEA FIRE AND LIFE INSURANCE COMPANY, LTD.

Gothenburg, Sweden.

(Incorporated, 1811. Commenced business in California September 22, 1884.)

M. L. Duncan, United States Manager.

Agent for service in California: Arthur M. Brown, San Francisco.

CAPITAL.

Capital deposit	$210,000 00	
Amount of ledger assets December 31st of previous year		$1,362,104 33

INCOME.

	Fire.	
Gross premiums	$934,565 23	
Reinsurance, fire, $71,823.91; return premiums, fire, $183,829.51	254,653 42	
Total premiums (other than perpetuals)		$678,911 81
Interest on bonds and dividends on stocks	$41,645 49	
Interest from other sources	1,791 31	
Total interest and rents		43,436 80
Refund New York State franchise tax for 1907		638 34
Profit on sale or maturity of ledger assets		445 49
Total income		$723,432 44
Total		$2,085,536 77

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$430,127 96	
Deduct amount received for salvage, fire, $3,609.68; reinsurance, fire, $27,257.52; discount, fire, $611.81	31,479 01	
Net amount paid for losses		$398,648 95
Expenses of adjustment, setlement of losses		11,423 31
Commissions or brokerage		185,464 19
Allowances to local agencies for miscellaneous agency expenses		1,704 47
Salaries and expenses of special and general agents		22,845 21
Salaries, fees and other charges of officers, directors, trustees, agents and employees		27,270 59
Rents, including company's occupancy of its own buildings		4,200 00
Advertising, printing and stationery		5,509 84

Postage, telegrams, telephone and express	$1,860 19
Legal expenses	762 77
Furniture and fixtures	648 98
Maps, including corrections	1,199 40
Underwriters' boards and tariff associations	8,770 63
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses	7,317 42
Inspections and surveys	2,893 32
State taxes on premiums	9,997 82
Insurance department licenses and fees	4,560 60
All other licenses, fees and taxes	1,819 31
Other disbursements	3,047 39
Total disbursements	$699,944 39
Balance	$1,385,592 38

LEDGER ASSETS.

Book value of bonds and stocks	$1,123,252 24
Cash in office	107 62
Deposits in trust companies and banks not on interest	24,168 47
Deposits in trust companies and banks on interest	90,364 70
Agents' balances, representing business written subsequent to October 1st, last	108,437 77
Agents balances, representing business written prior to October 1st, last	2,223 37
Bills receivable taken for fire risks	37,038 21
Total ledger assets	$1,385,592 38

Non-Ledger Assets.

Interest due and accrued on bonds	13,124 60
Gross assets	$1,398,716 98

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$2,223 37	
Bills receivable, past due, taken for marine, inland and fire risks	1,360 45	
Book value of ledger assets over market value, bonds	43,722 24	
Total		47,306 06
Total admitted assets		$1,351,410 92

LIABILITIES.

Losses adjusted and unpaid, due and not due	$29,289 29	
Losses in process of adjustment, or in suspense	52,172 09	
Losses resisted	8,228 44	
Total claims for losses	$89,689 82	
Deduct reinsurance	19,295 33	
Net amount of unpaid losses		$70,394 49
Unearned premiums at 50 per cent on fire risks running one year or less	$212,834 52	
Unearned premiums pro rata on fire risks running more than one year	428,169 69	
Total unearned premiums as computed above		641,004 21
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		724 51
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		11,849 38
Commissions, brokerage and other charges due or to become due to agents and brokers		3,005 02
Total liabilities, except capital stock		$726,977 61

Amount brought forward		$726,977 61
Capital deposit	$210,000 00	
Surplus over all liabilities	414,433 31	
Surplus to policyholders		624,433 31
Total		$1,351,410 92

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$103,937,796	$1,312,680 07
Written during the year	75,902,954	934,565 23
Excess of original premiums over amount received for reinsurance		842,814 81
Totals	$179,840,750	$2,247,245 30
Expired and terminated	71,437,788	901,547 27
In force at end of the year	$108,402,962	$1,345,698 03
Deduct amount reinsured	9,354,256	101,267 94
Net amount in force	$99,048,706	$1,244,430 09

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$32,918,785	$425,669 05
More than one and not more than three years to run	47,042,664	511,230 31
More than three years to run	19,087,257	307,530 73
Net amount in force December 31, 1911	$99,048,706	$1,244,430 09

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$50,000 00
Losses incurred during the year: Fire	391,058 50

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$7,757,118 00
Less	2,324,369 00
Net risks written	5,432,749 00
Gross premiums received	135,485 21
Less	32,244 72
Net premiums reecived	103,240 49
Net losses paid	37,998 54
Net losses incurred	39,584 09

TEUTONIA INSURANCE COMPANY.

New Orleans, La.

(Incorporated April, 1871. Commenced business in California April 18, 1879.)

Albert P. Noll, President. Frank Lungbuhn, Secretary.

Agent for service in California: H. R. Mann & Co., San Francisco.

CAPITAL.

Capital stock paid in cash	$250,000 00	
Amount of ledger assets December 31st of previous year		$1,061,464 17

INCOME.

	Fire.	Marine and inland.	
Gross premiums	$1,200,683 87	$15,674 32	
Deduct gross amount paid for reinsurance, fire, $125,297.86; marine and inland, $2,917.26; return premiums, fire, $219,314.54	344,612 40	2,917 26	
Total premiums (other than perpetuals)	$856,071 47	$12,757 06	$868,828 53
Interest on bonds and dividends on stocks		$30,987 83	
Interest from other sources		517 66	
Rents, including company's occupancy of its own buildings		4,500 00	
Total interest and rents			36,005 49
Profit on sale of bonds			2,559 00
Total income			$907,393 02
Total			$1,968,857 19

DISBURSEMENTS.

	Fire.	Marine and inland.	
Gross amount for losses	$571,054 83	$5,331 13	
Deduct amount received for salvage, fire, $4,390.44; reinsurance, fire, $63,880.85; discount, fire, $517.66	68,788 95		
Net amount paid for losses	$502,265 88	$5,331 13	$507,597 01
Expenses of adjustment, settlement of losses			7,212 10
Commissions or brokerage			201,675 90
Allowances to local agencies for miscellaneous agency expenses			3,000 00
Salaries and expenses of special and general agents			34,450 15
Salaries, fees and other charges of officers, directors, trusees, agents and employees			25,500 00
Rents, including company's occupancy of its own buildings			4,500 00
Advertising, printing and stationery			12,940 00
Postage, telegrams, telephone and express			2,715 75
Legal expenses			2,000 00
Maps, including corrections			1,850 00
Underwriters' boards and tariff associations			6,835 84
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses			6,311 63
Inspections and surveys			4,350 00
Taxes on real estate			1,564 75
State taxes on premiums			5,907 33
Insurance department licenses and fees			8,044 07
All other licenses, fees and taxes			8,880 94
Interest and dividends to stockholders			25,985 00
Total disbursements			$871,320 47
Balance			$1,097,536 72

LEDGER ASSETS.

Book value of real estate	$70,000 00
Book value of bonds and stocks	813,200 50
Cash in office	7,417 27
Deposits in trust companies and banks not on interest	86,910 34
Agents' balances, representing business written subsequent to October 1st, last	117,648 65
Agents' balances, representing business written prior to October 1st, last	2,359 96
Total ledger assets	$1,097,536 72

Amount brought forward		$1,097,536 72

Non-Ledger Assets.

Interest due and accrued on bonds		9,244 16
Gross assets		$1,106,780 88

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$2,359 96	
Book value of ledger assets over market value	25,749 50	
Total		28,109 46
Total admitted assets		$1,078,671 42

LIABILITIES.

Losses adjusted and unpaid, due and not due	$8,550 00	
Losses in process of adjustment, or in suspense	43,445 00	
Losses resisted	5,500 00	
Net amount of unpaid losses		$57,495 00
Unearned premiums at 50 per cent on fire risks running one year or less	$309,215 74	
Unearned premiums pro rata on fire risks running more than one year	286,672 18	
Total unearned premiums as computed above		595,887 92
Dividends declared and unpaid to stockholders		135 00
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		200 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		5,500 00
Commissions, brokerage and other charges due or to become due to agents and brokers		1,000 00
Return premiums, $300.00; reinsurance premiums, $3,000.00		3,300 00
Total liabilities, except capital stock		$663,517 92
Cash capital	$250,000 00	
Surplus over all liabilities	165,153 50	
Surplus to policyholders		415,153 50
Total		$1,078,671 42

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$91,622,051	$1,219,878 22
Written during the year	78,964,270	1,200,683 87
Totals	$170,586,321	$2,420,562 00
Expired and terminated	79,630,998	1,164,955 86
In force at end of the year	$90,955,323	$1,255,606 23
Deduct amount reinsured	8,269,263	124,411 11
Net amount in force	$82,686,060	$1,131,195 12
	Marine and inland risks.	Premiums.
Written during the year	2,612,386	15,674 32
Totals	$2,612,386	$15,674 32
Expired and terminated	2,612,386	15,674 32

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$40,622,992	$618,431 48
More than one and not more than three years to run	36,931,799	459,797 14
More than three years to run	5,131,269	52,966 50
Net amount in force December 31, 1911	82,686,060	$1,131,195 12

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$25,000 00
Losses incurred during the year: Fire, $494,300.88; marine and inland, $5,331.13	499,632 01

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Net risks written	$2,266,013 00
Net premiums received	40,070 87
Net losses paid	8,839 25
Net losses incurred	8,894 80

UNITED STATES BRANCH OF THE UNION ASSURANCE SOCIETY, LIMITED.

London, England.

(Incorporated July 30, 1907. Commenced business in California, 1909.)

A. H. Wray, Manager.

Agent for service in California: A. Dalton Harrison, San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year	$723,496 11

INCOME.

	Fire.	
Gross premiums	$556,945 51	
Deduct gross amount paid for reinsurance, fire, $140,737.41; return premiums, fire, $86,928.93	227,666 34	
Total premiums (other than perpetuals)		$329,279 17
Interest on bonds and dividends on stocks	$23,230 00	
Interest from other sources	700 67	
Total interest		23,930 67
Total income		$353,209 84
Total		$1,076,705 95

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$162,876 00	
Deduct amount received for salvage, fire, $116.10; reinsurance, fire, $21,646.13	21,763 23	
Net amount paid for losses		$141,112 77
Expenses of adjustment, settlement of losses		3,649 51
Commissions or brokerage		86,984 51
Salaries and expenses of special and general agents		13,121 67
Salaries, fees and other charges of officers, directors, trustees, agents and employees		500 00
Advertising, printing and stationery		644 24
Maps, including corrections		1,315 25
Underwriters' boards and tariff associations		5,943 25
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		936 53
State taxes on premiums		6,346 52
Insurance department licenses and fees		814 50
All other licenses, fees and taxes		1,943 70
To home office		103,731 62
Total disbursements		$367,044 07
Balance		$709,661 88

LEDGER ASSETS.

Book value of bonds and stocks		$608,847 76
Deposits in trust companies and banks not on interest		5,553 20
Deposits in trust companies and banks on interest		18,887 67
Agents' balances, representing business written subsequent to October 1st, last		18,829 75
Agents' balances, representing business written prior to October 1st, last		7,543 50
Total ledger assets		$709,661 88

Non-Ledger Assets.

Interest due and accrued on bonds		5,858 00
Gross assets		$715,519 88

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$7,543 50	
Bonds	29,667 76	
Total		37,211 26
Total admitted assets		$678,308 62

LIABILITIES.

Losses adjusted and unpaid, due and not due	$12,757 85	
Losses in process of adjustment, or in suspense	17,861 52	
Losses resisted	12,000 19	
Total claims for losses	$42,619 56	
Deduct reinsurance	4,730 73	
Net amount of unpaid losses		$37,888,83
Unearned premiums at 50 per cent on fire risks running one year or less	$162,756 50	
Unearned premiums pro rata on fire risks running more than one year	118,779 65	
Total unearned premiums as computed above		281,536 15
Reinsurance premiums		12,011 29
Total liabilities, except capital stock		$331,436 27
Deposit capital	$200,000 00	
Surplus over all liabilities	146,872 35	
Surplus to policyholders		346,872 35
Total		$678,308 62

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$31,622,111	$482,921 85
Written during the year	37,120,389	556,945 51
Totals	$68,742,500	$1,039,867 36
Expired and terminated	26,708,787	453,311 01
In force at end of the year	$42,033,713	$586,556 35
Deduct amount reinsured	3,461,752	51,462 64
Net amount in force	$38,571,961	$535,093 71

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$22,878,443	$325,513 01
More than one and not more than three years to run	15,610,432	207,601 07
More than three years to run	83,086	1,979 63
Net amount in force December 31, 1911	$38,571,961	$535,093 71

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$50,000 00
Losses incurred during the year: Fire	165,592 75

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross premiums received	$302,743 27
Less	5,057,307 00
Net risks written	15,189,675 00
Gross premiums received	302,743 27
Less	65,441 37
Net premiums received	237,301 90
Net losses paid	64,589 26
Net losses incurred	70,806 91

THE UNITED FIREMEN'S INSURANCE COMPANY.

Philadelphia, Pa.

(Incorporated April 2, 1860. Commenced business in California April 20, 1911.)

ROBERT B. BEATH, President. HENRY A. KNABE, Secretary.

Agent for service in California: JAMES F. COBB, San Francisco.

CAPITAL.

Capital stock paid in cash	$400,000 00	
Amount of ledger assets December 31st of previous year		$1,387,916 67
Increase of paid-up capital during year		200,000 00
Surplus paid in by stockholders		100,000 00
Extended at		$1,687,916 67

INCOME.

	Fire.	
Gross premiums	$424,466 37	
Deduct gross amount paid for reinsurance, fire, $33,798.92; return premiums, fire, $49,796.16	83,595 08	
Total premiums (other than perpetuals)		$340,871 29
Deposit premiums on perpetual risks		10,723 94
Interest on mortgage loans	$12,679 02	
Interest on collateral loans	401 15	
Interest on bonds and dividends on stocks	48,618 90	
Interest from other sources: Banks and trust companies	622 79	
Rents	215 00	
Total interest and rents		62,536 86
Approving transfers on perpetual policies		930 50
Agents' balances previously charged off		16 02
Total income		$415,078 61
Total		$2,102,995 28

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$108,602 35	
Deduct amount received for salvage, fire, $1,808.65; reinsurance, fire, $6,468.95; discount, fire, $313.60	8,591 20	
Net amount paid for losses		$100,011 15

Expenses of adjustment, settlement of losses	$1,643 87
Commissions or brokerage	94,640 85
Allowances to local agencies for miscellaneous agency expenses	1,428 14
Salaries, fees and other charges of officers, directors, trustees, agents and employees	23,106 88
Advertising, printing and stationery	5,279 09
Postage, telegrams, telephone and express	1,324 65
Legal expenses	1,571 71
Furniture and fixtures	123 48
Maps, including corrections	1,363 30
Underwriters' boards and tariff associations	2,498 59
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses	1,810 28
Inspections and surveys	193 60
Repairs and expenses on real estate	2,767 44
Taxes on real estate	1,504 20
State taxes on premiums	3,111 89
Insurance department licenses and fees	1,987 95
Federal corporation tax	230 40
Capital tax	797 81
Local tax	334 00
Other disbursements: General expenses, $2,833.95; traveling, $849.54; perpetual reinsurance, $687.95; interest on capital subscription, $3,142.64	7,514 08
Deposit premiums returned	29,812 40
Interest and dividends to stockholders	24,000 00
Agents' balances charged off	19 61
Loss on sale or maturity of ledger assets	452 00
Total disbursements	$307,527 37
Balance	$1,795,467 91

LEDGER ASSETS.

Book value of real estate	$106,572 12
Mortgage loans on real estate	222,782 00
Loans secured by pledge of bonds, stocks or other collaterals	3,800 00
Book value of bonds and stocks	1,337,398 00
Cash in office	607 20
Deposits in trust companies and banks not on interest	64,415 43
Agents' balances, representing business written subsequent to October 1st, last	59,484 21
Agents' balances, representing business written prior to October 1st, last	63 62
Perpetual deposits in course of collection	345 33
Total ledger assets	$1,795,467 91

Non-Ledger Assets.

Interest due and accrued on mortgages	$2,962 31	
Interest due and accrued on bonds	18,483 62	
Interest due and accrued on collateral loans	32 19	
Interest due and accrued on other assets	183 75	
Rents due and accrued on company's property	16 66	
Total		21,678 53
Gross assets		$1,817,146 44

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$63 62	
Book value of ledger assets over market value	41,970 62	
Total		42,034 24
Total admitted assets		$1,775,112 20

LIABILITIES.

Losses adjusted and unpaid, due and not due	$32,431 13	
Losses resisted	250 00	
Total claims for losses	$32,681 13	
Deduct reinsurance	3,088 54	
Net amount of unpaid losses		$29,592 59
Unearned premiums at 50 per cent on fire risks running one year or less	$111,290 39	
Unearned premiums pro rata on fire risks running more than one year	147,475 84	
Total unearned premiums as computed above		258,766 23
Amount reclaimable by the insured on perpetual fire insurance policies		857,977 13
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		582 91
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		7,138 12
Reinsurance premiums		912 19
Total liabilities, except capital stock		$1,154,969 17
Cash capital	$400,000 00	
Surplus over all liabilities	220,143 03	
Surplus to policyholders		620,143 03
Total		$1,775,112 20

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$46,404,846	$411,994 67
Written during the year	38,547,085	424,466 37
Totals	$84,951,931	$836,461 04
Expired and terminated	26,728,115	279,584 54
In force at end of the year	$58,223,816	$556,876 50
Deduct amount reinsured	8,680,236	97,955 78
Net amount in force	$49,543,580	$458,920 72

Perpetual risks not included above, $42,031,863; premiums on same, $950,870.05.

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$18,629,428	$222,580 77
More than one and not more than three years to run	10,081,175	98,834 40
More than three years to run	20,832,977	137,505 55
Net amount in force December 31, 1911	$49,543,580	$458,920 72

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$25,000 00
Losses incurred during the year: Fire	119,388 86
Amount loaned to stockholders not officers	7,800 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.
Gross risks written	$2,215,795 00
Less	618,191 00
Net risks written	1,597,604 00
Gross premiums received	43,927 58
Less	12,079 57
Net premiums received	31,848 01
Net losses paid	2,678 90
Net losses incurred	2,938 09

WESTCHESTER FIRE INSURANCE COMPANY.

New York, N. Y.

(Incorporated as a mutual March 14, 1837. Commenced business in California in 1885.)

GEORGE R. CRAWFORD, President. JOHN H. KELLY, Secretary.

Agent for service in California: MACDONALD & MILES, San Francisco.

CAPITAL.

Capital stock paid in cash	$300,000 00	
Amount of ledger assets December 31st of previous year		$4,581,625 82

INCOME.

	Fire.	
Gross premiums	$3,882,257 07	
Deduct gross amount paid for reinsurance, fire, $610,215.24; return premiums, fire, $629,846.95	1,240,062 19	
Total premiums (other than perpetuals)		$2,642,510 88
Interest on mortgage loans	$11,000 20	
Interest on bonds and dividends on stocks	185,179 60	
Interest from other sources	2,150 81	
Rents, including company's occupancy of its own buildings	108 00	
Total interest and rents		198,438 61
Increase in liabilities during the year on account of reinsurance treaties		10,691 53
Agents' balances previously charged off		1,964 31
Profit on sale or maturity of ledger assets		886 05
Total income		$2,854,491 38
Total		$7,436,117 20

DISBURSEMENTS.

	Fire.	
Gross amount paid for losses	$1,878,825 32	
Deduct amount received for salvage, fire, $13,323.80; reinsurance, fire, $370,094.95	383,418 75	
Net amount paid for losses		$1,495,406 57
Expenses of adjustment, settlement of losses		25,921 03
Commissions or brokerage		508,760 27
Salaries and expenses of special and general agents		167,319 84
Salaries, fees and other charges of officers, directors, trustees, agents and employees		119,985 77
Rents, including company's occupancy of its own buildings		18,193 25
Advertising, printing and stationery		29,746 51
Postage, telegrams, telephone and express		18,752 42
Legal expenses		2,225 13
Furniture and fixtures		2,356 10
Maps, including corrections		10,828 97
Underwriters' boards and tariff associations		27,946 34
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		10,068 22
Inspections and surveys		17,881 28
Taxes on real estate		355 74
State taxes on premiums		50,652 31
Insurance department licenses and fees		12,383 50
All other licenses, fees and taxes		1,272 58
Municipal taxes and licenses		13,487 58
Collection and exchange		2,131 83
Interest and dividends to stockholders		120,000 00

Agents' balances charged off		$2,216 98
Loss on sale or maturity of ledger assets		8,021 15
Total disbursements		$2,665,913 37
Balance		$4,770,203 83

LEDGER ASSETS.

Book value of real estate		$9,189 60
Mortgage loans on real estate		153,450 00
Book value of bonds and stocks		4,031,985 48
Deposits in trust companies and banks on interest		218,790 69
Agents' balances, representing business written subsequent to October 1st, last		343,181 06
Agents' balances, representing business written prior to October 1st, last		13,607 00
Total ledger assets		$4,770,203 83

Non-Ledger Assets.

Interest due and accrued on mortgages	$1,187 92	
Interest due and accrued on bonds	5,483 32	
Total		$6,671 24
Gross assets		$4,776,875 07

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$13,607 00	
Book value of ledger assets over market value	80,022 98	
Special deposits to secure liabilities in Georgia, New Mexico and Virginia, $36,000.		
Total		93,629 98
Total admitted assets		$4,683,245 09

LIABILITIES.

Losses adjusted and unpaid, due and not due	$53,059 41	
Losses in process of adjustment, or in suspense	275,254 40	
Losses resisted	13,500 00	
Total claims for losses	$341,813 81	
Deduct reinsurance	66,594 79	
Net amount of unpaid losses		$275,219 02
Unearned premiums at 50 per cent on fire risks running one year or less	$808,705 26	
Unearned premiums pro rata on fire risks running more than one year	1,710,629 45	
Total unearned premiums as computed above		2,519,334 71
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		45,000 00
Reinsurance premiums		10,000 00
All other liabilities: Reserve for all contingencies, $5,000; reserve on account of reinsurance treaties, $10,691.53		15,691 53
Total liabilities, except capital		$2,865,245 26
Less liabilities secured by special deposits in Georgia, New Mexico and Virginia: losses, $7,528.45; earned premiums, $61,700.59.		
Cash capital	$300,000 00	
Surplus over all liabilities	1,517,999 83	
Surplus to policyholders		1,817,999 83
Total		$4,683,245 09
Special reserve fund held under New York law		$300,000 00

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force on the 31st day of December, as per line 5 under this heading in last year's statement	$529,314,298	$5,392,424 60
Written or renewed during the year, per Income No. 5	357,650,212	3.882.573 07
Totals	$886.964.510	$9.274.997 67
Deduct those expired and marked off as terminated	319,523,701	3,557,033 35
In force at the end of the year	$567,440,809	$5,717,964 32
Deduct amount reinsured (schedule required)	77,178,058	840,909 25
Net amount in force	$490,262,751	$4,877,055 07

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$137,554,162	$1,617,410 51
More than one and not more than three years to run	268,914,457	2,307,904 39
More than three years to run	83,794,132	951,740 17
Net amount in force December 31, 1911	$490,262,751	$4,877,055 07

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$50.000 00
Losses incurred during the year: Fire	1,522,864 03

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire
Gross risks written	$9,598,321 00
Less	3,453,064 00
Net risks written	6,145,257 00
Gross premiums received	181,261 16
Less	54,721 01
Net premiums received	126,540 15
Net losses paid	57,854 70
Net losses incurred	59,852 53

UNITED STATES BRANCH
WESTERN ASSURANCE COMPANY.

Toronto, Canada.

(Incorporated August, 1851. Commenced business in California, 1878.)

W. B. Meikle, General Manager. C. C. Foster, Secretary.

Agent for service in California: W. L. W. Miller, San Francisco.

CAPITAL.

Capital deposit	$207,000	
Amount of ledger assets December 31st of previous year		$2,368,996 72

INCOME.

	Fire.	Marine and inland.	
Gross premiums	$1,965,837 09	$372,492 34	
Deduct gross amount paid for reinsurance, fire, $399,826.87; marine and inland, $112,044.01; return premiums, fire, $341,461.82; marine and inland, $27,611.03	741,287 69	139.655 09	
Total premiums (other than perpetuals)	$1,244,548 40	$232,837 30	$1,457,385 70

Interest on bonds and dividends on stocks	$79,765 13	
Interest from other sources	4,329 98	
Total interest		$84,095 11
Profit on sale or maturity of ledger assets		1,010 00
Total income		$1,542,490 81
Total		$3,911,487 53

DISBURSEMENTS.

	Fire.	Marine and inland.	
Gross amount paid for losses	$892,296 15	$288,358 18	
Deduct amount received for salvage, fire, $3,752.99; marine and inland, $45,316 02; reinsurance, fire, $211,406.70; marine and inland, $100,357.58; discount, fire, $748.47	215,908 16	145,673 60	
Net amount paid for losses	$676,387 99	$142,684 58	$819,072 57
Expenses of adjustment, settlement of losses			10,880 40
Commissions or brokerage			323,006 48
Salaries and expenses of special and general agents			74,272 76
Salaries, fees and other charges of officers, directors, trustees, agents and employees			83,944 25
Rents, including company's occupancy of its own buildings			4,668 29
Advertising, printing and stationery			25,379 21
Postage, telegrams, telephone and express			10,627 45
Legal expenses			1,196 49
Maps, including corrections			4,150 07
Underwriters' boards and tariff associations			15,323 43
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses			2,500 61
Inspections and surveys			3,979 39
Repairs and expenses on real estate			3,580 68
State taxes on premiums			28,793 64
Insurance department licenses and fees			8,279 63
All other licenses, fees and taxes: Municipal			14,442 30
Heating, lighting, cleaning		$3,063 33	
Office expenses		672 63	
Insurance		329 03	
Exchange		1,744 97	
			5,809 96
Remitted to head office			69,211 88
Agents' balances charged off			1 15
Loss on sale or maturity of ledger assets			1,880 00
Total disbursements			$1,511,000 64
Balance			$2,400,486 89

LEDGER ASSETS.

Book value of bonds and stocks	$1,918,870 24
Cash in office at branches	364 15
Deposits in trust companies and banks not on interest, including $3,648.57 at branches	20,532 80
Deposits in trust companies and banks on interest	244,114 54
Agents' balances, representing business written subsequent to October 1st, last	209,660 72
Agents' balances, representing business written prior to October 1st, last	5,911 89
Bills receivable, taken for marine and inland risks	1,032 55
Total ledger assets	$2,400,486 89

Amount brought forward		$2,400,486 89

Non-Ledger Assets.

Interest due and accrued on bonds		21,587 14
Other non-ledger assets, reassurance due on losses paid		7,845 88
Gross assets		$2,429,919 91

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$5,911 89	
Book value of ledger assets over market value	19,197 72	
Special deposits to secure liabilities in Virginia	41,160 00	
Total		66,269 61
Total admitted assets		$2,363,650 30

LIABILITIES.

Losses in process of adjustment, or in suspense	$262,299 80	
Losses resisted	6,701 20	
Total claims for losses	$269,001 00	
Deduct reinsurance	67,022 66	
Net amount of unpaid losses		$201,978 34
Unearned premiums at 50 per cent on fire risks running one year or less	$445,617 89	
Unearned premiums pro rata on fire risks running more than one year	632,274 35	
Unearned premiums at 50 per cent on inland navigation risks	43,772 32	
Ocean cargo, 100 per cent	15,140 26	
Unearned premiums at 50 per cent on marine risks	9,191 52	
Total unearned premiums as computed above		1,145,996 34
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		1,200 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		21,860 77
Commissions, brokerage and other charges due or to become due to agents and brokers		6,466 00
Total		$1,377,501 45
Less liabilities secured by special deposits in Virginia, losses, $1,931.00; unearned premiums, $20,725.48		22,656 48
Total liabilities, except capital stock		$1,354,844 97
Deposit capital	$407,000 00	
Surplus over all liabilities	601,805 33	
Surplus to policyholders		1,008,805 33
Total		$2,363,650 30

RISKS AND PREMIUMS.

	Risks.	Premiums.
In force December 31, 1910	$255,326,019	$2,611,410 07
Written during the year	215,507,392	1,965,837 09
Excess of original premiums over amount received for reinsurance	---------	6,348 97
Totals	$470,833,411	$4,583,596 13
Expired and terminated	206,728,019	1,954,356 36
In force at end of the year	$264,105,392	$2,629,239 77
Deduct amount reinsured	55,113,088	461,879 61
Net amount in force	$208,992,304	$2,167,360 16

	Marine and fire risks.	Premiums.
In force December 31, 1910	$11,088,436	$201,734 74
Written during the year	42,921,575	372,492 34
Totals	$54,010,011	$574,227 08
Expired and terminated	45,005,227	400,432 97
In force at end of the year	$9,004,784	$173,794 11
Deduct amount reinsured	1,511,909	52,726 15
Net amount in force	$7,492,875	$121,067 96

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$85,344,284	$891,235 79
More than one and not more than three years to run	85,100,779	839,173 33
More than three years to run	38,547,241	436,951 04
Net amount in force December 31, 1911	$208,992,304	$2,167,360 16

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$50,000 00
Losses incurred during the year: Fire, $704,268.43; marine and inland, $138,381.57	842,650 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Fire.	Marine and inland.
Gross risks written	$10,466,294 00	$1,429,710 00
Less	2,760,812 00	485,069 00
Net risks written	7,705,482 00	944,641 00
Gross premiums received	158,726 25	36,615 80
Less	34,978 33	11,671 80
Net premiums received	123,747 92	24,944 00
Net losses paid	39,935 35	50,119 68
Net losses incurred	42,702 45	50,119 68

MARINE INSURANCE
COMPANIES.

MARINE INSURANCE COMPANIES.

AMERICAN FOREIGN MARINE INSURANCE COMPANY.

New York.

(Incorporated December, 1896. Commenced business in California February, 1897.)

F. L. H. Simpson, President. J. E. Hoffman, Secretary.

Agent for service in California: Balfour, Guthrie & Co., San Francisco.

CAPITAL.

Capital stock paid in cash	$300,000 00	
Amount of ledger assets December 31st of previous year		$967,186 21

INCOME.

	Marine and inland.	
Gross premiums	$716,160 21	
Deduct gross amount paid for reinsurance, marine and inland, $505,464.76; return premiums, marine and inland, $31,826.60	537,291 36	
Total premiums (other than perpetuals)		$178,868 85
Interest on bonds and dividends on stocks		33,031 11
Agents' balances previously charged off		159 49
Profit on sale or maturity of ledger assets		1,014 54
Increase in book value of ledger assets		172 05
Total income		$213,246 04
Total		$1,180,432 25

DISBURSEMENTS.

	Marine and inland.	
Gross amount paid for losses	$511,140 22	
Deduct amount received for salvage, marine and inland, $82,672.56; reinsurance, marine and inland, $347,746.53	430,419 09	
Net amount paid for losses		$80,721 13
Expenses of adjustment, settlement of losses		608 04
Commissions or brokerage		26,052 79
Allowances to local agencies for miscellaneous agency expenses		45 48
Salaries, fees and other charges of officers, directors, trustees, agents and employees		1,355 01
Advertising, printing and stationery		376 63
Postage, telegrams, telephone and express		235 99
Legal expenses		624 75
Underwriters' boards and tariff associations		128 06
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		1 60
Inspections and surveys		160 14
State taxes on premiums		6,146 06
Insurance department licenses and fees		657 50
All other licenses, fees and taxes: Federal corporation tax, $604.79; state, county and municipal licenses, $373.70		978 49
Traveling expenses		5 36
Auditing accounts		722 06
Commissions from recoveries on reinsurance placed broad		159 18
Miscellaneous petty expenses		244 35
Policy stamps on reinsurance placed abroad		239 39
Interest and dividends to stockholders		21,000 00
Agents' balances charged off		718 71
Decrease in book value of ledger assets		968 93
Total disbursements		$142,149 65
Balance		$1,038,282 60

LEDGER ASSETS.

Book value of bonds and stocks	$916,721 09
Deposits in trust companies and banks not on interest	64,273 80
Deposits in trust companies and banks on interest	10,000 00
Agents' balances, representing business written subsequent to October 1st, last	46,616 64
Agents' balances, representing business written prior to October 1st, last	671 07
Total ledger assets	$1,038,282 60

Non-Ledger Assets.

Interest due and accrued on bonds	4,504 16
Due from other companies for reinsurance on losses already paid	2,417 34
Gross assets	$1,045,204 10

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last		$671 07	
Book value bonds and stocks	$916,721 09		
Market value bonds and stocks	864,918 00		
		51,803 09	
			52,474 16
Total admitted assets			$992,729 94

LIABILITIES.

Total claims for losses	$88,323 00	
Deduct reinsurance	21,459 00	
Net amount of unpaid losses		$66,864 00
Unearned premiums at 50 per cent on inland navigation risks	$24,698 94	
Unearned premiums at 100 per cent on marine risks	8,504 51	
Total unearned premiums as computed above		33,203 45
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		200 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		9,500 00
Commissions, brokerage and other charges due or to become due to agents and brokers		1,875 58
Reinsurance premiums		15,287 43
Total liabilities, except capital stock		$126,930 46
Cash capital	$300,000 00	
Surplus over all liabilities	565,799 48	
Surplus to policyholders		865,799 48
Total		$992,729 94

RISKS AND PREMIUMS.

	Marine and inland risks.	Premiums.
In force December 31, 1910	$9,729,079	$121,599 66
Written during the year	722,713,676	716,160 21
Totals	$732,442,755	$837,759 87
Expired and terminated	723,630,889	727,254 03
In force at end of the year	$8,811,866	$110,505 84
Deduct amount reinsured	4,332,303	52,603 45
Net amount in force	$4,479,563	$57,902 39

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$50,000 00
Losses incurred during the year: Marine and inland	91,716 12

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Marine and inland.
Gross risks written	$13,128,642 00
Less	42,209 00
Net risks written	13,086,433 00
Gross premiums received	12,760 45
Less	95 70
Net premiums received	12,664 75
Net losses paid	1,832 37

BOSTON INSURANCE COMPANY.

Boston, Mass.

(Incorporated December 23, 1873. Commenced business in California August 22, 1882.)

Ranson B. Fuller, President. **Freeman Nickerson**, Secretary.

Agent for service in California: H. J. **Knowles**, San Francisco.

CAPITAL.

Capital stock paid in cash	$1,000,000 00	
Amount of ledger assets December 31st of previous year		$6,169,508 92

INCOME.

	Fire.	Marine and inland.	
Gross premiums	$2,417,139 43	$2,131,120 00	
Deduct gross amount paid for reinsurance, fire, $498,910.42; marine and inland, $195,531.84; return premiums, fire, $459,204.52; marine and inland, $324,568.53	958,114 94	520,100 37	
Total premiums (other than perpetuals)	$1,459,024 49	$1,611,019 63	$3,070,044 12
Interest on mortgage loans		27,619 02	
Interest on collateral loans		2,200 83	
Interest on bonds and dividends on stocks		207,825 34	
Interest from other sources		6,455 09	
Rents, including company's occupancy of its own buildings		190 00	
Total interest and rents			244,290 28
From other sources: Profit on home office agency, $2,125.96; dividend No. 10811, National Bank of Republic, liquidation, $1200; dividend No. 3, Naumkeag National Bank, liquidation, $300			3,625 96
Increase in book value of ledger assets			35 88
Total income			$3,317,996 24
Total			$9,487,505 16

DISBURSEMENTS.

	Fire.	Marine and inland.	
Gross amount paid for losses	$1,236,125 83	$1,180,836 00	
Deduct amount received for salvage, fire, $11,824.75; marine and inland, $102,806.54; reinsurance, fire, $326,963.18; marine and inland, $154,884.84; discount, fire, $689.33; marine and inland, $700.26	339,477 26	258,391 64	
Net amount paid for losses	$896,648 57	$922,444 36	$1,819,092 93

Amount brought forward	$1,819.092 93
Expenses of adjustment, settlement of losses	32,502 18
Commissions or brokerage	622,025 27
Allowances to local agencies for miscellaneous agency expenses	8,705 70
Salaries and expenses of special and general agents	76,558 86
Salaries, fees and other charges of officers, directors, trustees, agents and employees	188,832 79
Rents, including company's occupancy of its own buildings	21,007 73
Advertising, printing and stationery	20,850 86
Postage, telegrams, telephone and express	10,413 97
Legal expenses	1,423 75
Furniture and fixtures	4,268 59
Maps, including corrections	3,942 61
Underwriters' boards and tariff associations	23,818 24
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses	16,741 59
Inspections and surveys	1,044 23
Repairs and expenses on real estate	3,541 31
Taxes on real estate	649 04
State taxes on premiums	39,848 19
Insurance department licenses and fees	11,308 80
All other licenses, fees and taxes	7,231 72
Miscellaneous expenses	15,234 44
Investment expenses	35 00
Interest on borrowed money	516 67
Interest on prepayment of premiums	432 24
Interest and dividends to stockholders	300,000 00
Agents' balances charged off	1,795 66
Loss on sale or maturity of ledger assets	2,783 10
Total disbursements	$3,234,605 47
Balance	$6,252,899 69

LEDGER ASSETS.

Book value of real estate	$34,000 00
Mortgage loans on real estate	510,900 00
Loans secured by pledge of bonds, stocks or other collaterals	56,100 00
Book value of bonds and stocks	4,683,302 22
Cash in office	10,473 90
Deposits in trust companies and banks not on interest	4,307 82
Deposits in trust companies and banks on interest	352,553 33
Agents' balances, representing business written subsequent to October 1st, last	510,297 50
Agents' balances, representing business written prior to October 1st, last	29,930 72
Bills receivable taken for marine and inland risks	57,614 20
Bills receivable taken for fire risks	2,560 00
Deposits with boards	700 00
Notes receivable	160 00
Total ledger assets	$6,252,899 00

Non-Ledger Assets.

Interest due and accrued on mortgages	$4,625 45	
interest due and accrued on bonds	13,853 84	
Interest due and accrued on collateral loans	1,029 25	
Total		19,508 54
Market value of bonds and stocks over book value		234,816 78
Reinsurance, return premiums due from other companies		385 06
Gross assets		$6,507,610 07

Amount brought forward		$6,507,610 07

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$29,930 72	
Bills receivable, past due, taken for marine, inland and fire risks	6,794 89	
Loans on personal security	2,500 00	
Book value of ledger assets over market value: Reinsurance, return premium, $145.01; deposited with boards, $700	845 01	
Total		40,070 62
Total admitted assets		$6,467,539 45

LIABILITIES.

Losses adjusted and unpaid, due and not due	$26,982 14	
Losses in process of adjustment, or in suspense	427,731 59	
Losses resisted	36,139 24	
Total claims for losses	$490,852 97	
Deduct reinsurance	83,324 44	
Net amount of unpaid losses		$407,528 53
Unearned premiums at 50 per cent on fire risks running one year or less	$461,803 67	
Unearned premiums pro rata on fire risks running more than one year	953,777 41	
Unearned premiums at 50 per cent on inland navigation risks	584,355 00	
Unearned premiums at 100 per cent on marine risks	32,318 66	
Total unearned premiums as computed above		2,032,234 74
Dividends declared and unpaid to stockholders		50,000 00
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		2,946 40
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		29,499 05
Commissions, brokerage and other charges due or to become due to agents and brokers		72,721 04
Total liabilities, except capital stock		$2,594,929 76
Cash capital	$1,000,000 00	
Surplus over all liabilities	2,872,609 69	
Surplus to policyholders		3,872,609 69
Total		$6,467,539 45

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$337,342,322	$3,265,488 19
Written during the year	244,332,699	2,417,139 43
Totals	$581,675,021	$5,682,627 62
Expired and terminated	219,893,371	2,176,661 52
In force at end of the year	$361,781,650	$3,505,966 10
Deduct amount reinsured	79,885,469	792,040 25
Net amount in force	$281,896,181	$2,713,925 85

	Marine and inland risks.	Premiums.
In force December 31, 1910	$39,027,334	$1,156,341 47
Written during the year	154,870,743	2,131,120 00
Totals	$193,898,077	$3,287,461 57
Expired and terminated	153,630,565	2,017,712 16
In force at end of the year	$40,267,512	$1,269,749 31
Deduct amount reinsured	2,209,576	68,760 65
Net amount in force	$38,057,936	$1,200,988 66

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$85,108,955	$923,607 35
More than one and not more than three years to run	129,816,883	1,067,599 41
More than three years to run	66,970,343	722,719 09
Net amount in force December 31, 1911	$281,896,181	$2,713,925 85

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$150,000 00
Losses incurred during the year: Fire, $952,809.19; marine and inland, $870,403.88	1,823,213 07
Amount loaned to stockholders not officers	9,600 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Marine and inland.
Gross risks written	$4,825,358 00
Less	1,682,610 00
Net risks written	3,142,748 00
Gross premiums received	117,416 29
Less	36,447 05
Net premiums received	80,969 24
Net losses paid	46,774 20

UNITED STATES BRANCH OF THE BRITISH AND FOREIGN MARINE INSURANCE COMPANY, LIMITED.

Liverpool, England.

(Incorporated February, 1863. Commenced business in California, 1864.)

W. L. H. Simpson, General Manager.

Agent for service in California: Balfjur, Guthrie & Co., San Francisco.

CAPITAL.

Capital deposit	$517,000 00	
Amount of ledger assets December 31st of previous year		$1,620,005 61

INCOME.

	Marine and inland.	
Gross premiums	$2,897,650 19	
Deduct gross amount paid for reinsurance, marine and inland, $1,954,251.72; return premiums, marine and inland, $173,216.69	2,127,468 41	
Total premiums (other than perpetuals)		$770.181 78
Interest on bonds and dividends on stocks		40,007 00
Received from home office		635,521 11
Agents' balances previously charged off		797 44
Total income		$1,446,507 33
Total		$3,066,512 94

DISBURSEMENTS.

	Marine and inland.	
Gross amount paid for losses	$1,760,560 57	
Deduct amount received for salvage, marine and inland, $349,421.73; reinsurance, marine and inland, $1,146,029.40	1,495,451 13	
Net amount paid for losses		$265,109 44

Expenses of adjustment, settlement of losses	$8,186 45
Commissions or brokerage	113,796 31
Allowances to local agencies for miscellaneous agency expenses	246 85
Salaries, fees and other charges of officers, directors, trustees, agents and employees	68,776 77
Rents, including company's occupancy of its own buildings	6,750 00
Advertising, printing and stationery	8,245 77
Postage, telegrams, telephone and express and cables	5,567 08
Legal expenses	473 28
Furniture and fixtures	630 98
Underwriters' boards and tariff associations	1,918 60
Inspections and surveys	1,033 40
State taxes on premiums	20,960 59
Insurance department licenses and fees	2,084 90
All other licenses, fees and taxes: Federal corporation tax, $1,721.96; state, county and municipal licenses, $1,372.62	3,094 58
Remitted to home office	1,039,195 73
Traveling expenses	2,774 64
Auditing accounts	3,984 21
Miscellaneous expenses	3,023 63
Policy stamps, $1,213.39; commissions on recoveries, $718.61; on reinsurances placed abroad	1,932 00
Agents' balances charged off	2,085 90
Decrease in book value of ledger assets	2,766 57
Total disbursements	$1,562,637 68
Balance	$1,503,875 26

LEDGER ASSETS.

Book value of bonds and stocks	$1,007,530 69
Cash in office	70 55
Deposits in trust companies and banks not on interest	14,008 12
Agents' balances, representing business written subsequent to October 1st, last	430,027 42
Agents' balances, representing business written prior to October 1st, last	47,833 06
Accounts receivable, balance account due from Royal Insurance Company, Ltd.	1,905 42
Cash advanced to lawyers in connection with collision losses, etc.	2,500 00
Total ledger assets	$1,503,875 26

Non-Ledger Assets.

Interest due and accrued on bonds	12,764 58
Due from other companies for reinsurance on losses already paid	3,167 06
Gross assets	$1,519,806 90

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last		47,833 06
Book value of bonds and stocks	$1,007,530 69	
Market value of bonds and stocks	981,403 00	
		26,127 69
Accounts receivable, advance to lawyers as above		2,500 00
Total		$76,460 75
Total admitted assets		$1,443,346 15

LIABILITIES.

Losses in process of adjustment, or in suspense	$345,087 27	
Losses resisted	3,790 10	
Total claims for losses	$348,877 37	
Deduct reinsurance	160,957 16	
Net amount of unpaid losses		$187,920 21
Unearned premiums at 50 per cent on inland navigation risks	$138,308 10	
Unearned premiums at 100 per cent on marine risks	49,409 77	
Total unpaid premiums as computed above		187,717 87
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		12,822 86
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		34,414 56
Commissions, brokerage and other charges due or to become due to agents and brokers		37,842 16
Reinsurance premiums		241,928 08
Total liabilities, except capital stock		$702,645 74
Cash deposit	$517,000 00	
Surplus over all liabilities	223,700 41	
Surplus to policyholders		740,700 41
Total		$1,443,346 15

RISKS AND PREMIUMS.

	Marine and inland risks.	Premiums.
In force December 31, 1910	$43,390,291	$660,061 78
Written during the year	981,971,828	2,897,650 19
Totals	$1,025,362,119	$3,557,711 97
Expired and terminated	984,008,026	2,970,124 63
In force at end of the year	$41,354,093	$587,587 34
Deduct amount reinsured	17,991,872	209,930 29
Net amount in force	$23,362,221	$377,657 05

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$65,000 00
Losses incurred during the year: Marine and inland	293,656 75

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Marine and inland.
Gross risks written	$42,170,797 00
Less	9,663,562 00
Net risks written	32,507,235 00
Gross premiums received	180,239 61
Less	85,023 11
Net premiums received	95,216 50
Net losses paid	35,945 83
Net losses incurred	35,945 83
Home office statement shows—	
Capital (paid up)	$1,302,480 00
Assets	10,415,374 45
Liabilities	1,575,695 88

UNITED STATES BRANCH OF THE CANTON INSURANCE OFFICE, LIMITED.

Hongkong, China.

(Incorporated, 1882. Commenced business in California, 1882.)

C. H. Ross, Chairman. E. C. Emmett, Secretary.

Agent for service in California: R. B. Huie, San Francisco, Cal.

CAPITAL.

Bonds in United States	$200,000 00	
Amount of ledger assets December 31st of previous year		$237,002 44

INCOME.

	Marine and inland.	
Gross premiums	$212,403 66	
Deduct amount paid for reinsurance, marine and inland, $37,392.38; return premiums, marine and inland, $16,414.68	53,807 06	
Total premiums (other than perpetuals)		$158,596 60
Interest on bonds and dividends on stocks		8,000 00
Cash received from head office		9,635 00
Reciprocity commissions received from other companies		352 20
Salvage received account head office losses		3,816 21
Losses paid in London account United States branch business		15,469 85
Total income		$195,869 86
Total		$432,872 30

DISBURSEMENTS.

	Marine and inland.	
Gross amount paid for losses	$189,583 64	
Deduct amount received for salvage, reinsurance and discount	57,916 59	
Net amount paid for losses		$131,667 05
Expenses of adjustment, settlement of losses		1,752 00
Commissions or brokerage		24,793 71
Rents, including company's occupancy of its own buildings		1,800 00
Advertising, printing and stationery		1,060 18
Postage, telegrams, telephone and express		1,393 65
Legal expenses		100 00
Underwriters' boards and tariff associations		286 00
Inspections and surveys		97 00
State taxes on premiums		1,696 12
Insurance department licenses and fees		211 87
All other licenses, fees and taxes		274 72
Bonus paid policyholders		392 48
Reciprocity commission paid other companies		2,248 49
Discount for premium notes paid cash		135 26
Disbursements for account head office		1,158 33
Amount remitted to head office by New York		8,000 00
Total disbursements		$177,066 86
Balance		$255,805 44

LEDGER ASSETS.

Book value of bonds and stocks	$200,000 00
Cash in office	9.732 42
Agents' balances, representing business written subsequent to October 1st, last	36,093 86
Agents' balances, representing business written prior to October 1st, last	3,663 91
Bills receivable, taken for marine and inland risks	6,315 25
Total ledger assets	$255,805 44

Amount brought forward		$255,805 44

Non-Ledger Assets.

Market value of bonds and stocks over book value		27,500 00
Stationery, furniture and fixtures		750 00
Gross assets		$284,055 44

Deduct Assets Not Admitted.

Supplies, printed matter and stationery	$200 00	
Furniture, fixtures and safes	500 00	
Agents' balances, representing business written prior to October 1st, last	3,663 91	
Total		4,413 91
Total admitted assets		$279,641 53

LIABILITIES.

Losses in process of adjustment, or in suspense	$19,450 00	
Losses resisted	10,835 00	
Net amount of unpaid losses		$30,285 00
Unearned premiums at 50 per cent on marine risks, hull	$66,086 35	
Unearned premiums at 100 per cent on marine risks, cargo	5,964 21	
Total unearned premiums as computed above		39,007 38
Commissions, brokerage and other charges due or to become due to agents and brokers		2,559 26
Reinsurance premiums		3,007 28
Bills payable given for marine risks		1,013 03
Total liabilities, except capital stock		$75,871 95
Capital deposit (bonds in United States)	$200,000 00	
Surplus over all liabilities	3,769 58	
Surplus to policyholders		$203,769 58
Total		$279,641 53

RISKS AND PREMIUMS.

	Marine and inland risks.	Premiums.
In force December 31, 1910	$1,789,739	$74,291 63
Written during the year	23,836,896	158,596 60
Totals	$25,626,635	$232,888 23
Expired and terminated	24,145,418	160,837 67
Net amount in force	$1,481,217	$72,050 56

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$1,224,000 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Marine and inland.
Gross risks written	$29,358,301 00
Less	10,298,951 00
Net risks written	19,059,350 00
Gross premiums received	174,079 69
Less	28,696 06
Net premiums received	145,383 63
Net losses paid	138,477 39
Home office statement shows—	
Capital (paid up)	$250,000 00
Assets	1,812,617 52
Liabilities	459,495 57

UNITED STATES BRANCH OF THE FONCIERE INSURANCE COMPANY.

Paris, France.

(Incorporated November 20, 1879. Commenced business in California November 20, 1880.)

Agent for service in California: H. R. MANN & Co., San Francisco, Cal.

CAPITAL.

Statutory deposit (in state of New York)	$200,000 00	
Amount of ledger assets December 31st of previous year		$238,240 92

INCOME.

	Marine and inland.	
Gross premiums	$44,886 55	
Deduct gross amount paid for reinsurance, marine and inland, $1,402.45; return premiums, marine and inland, $2,099.05	3,501 50	
Total premiums (other than perpetuals)		$41,385 05
Interest on bonds and dividends on stocks	$9,000 00	
Interest from other sources	53 57	
Total interest and rents		9,053 57
Cash received from home office, Paris		2,000 00
Total income		$52,438 62
Total		$290,679 54

DISBURSEMENTS.

	Marine and inland.	
Gross amount paid for losses	$32,884 09	
Deduct amount received for salvage, marine and inland, $3,766.72; reinsurance, marine and inland, $402.22	4,168 94	
Net amount paid for losses		$28,715 15
Expenses of adjustment, settlement of losses		149 26
Commissions or brokerage		6,972 35
Salaries and expenses of special and general agents		4,682 45
Advertising, printing and stationery		301 75
Postage, telegrams, telephone and express		40 35
Underwriters' boards and tariff associations		160 00
State taxes on premiums		580 36
Insurance department licenses and fees		89 00
All other licenses, fees and taxes		71 26
Dues to Merchants' Exchange, San Francisco		66 00
State tax on capital		200 00
Cash remitted to home office, Paris, France		11,731 60
Total disbursements		$53,759 53
Balance		$236,920 01

LEDGER ASSETS.

Book value of bonds and stocks (schedule D)	$226,000 00
Deposits in trust companies and banks on interest	549 93
Agents' balances, representing business written subsequent to October 1st, last	9,189 18
Bills receivable, taken for marine and inland risks	1,180 90
Total ledger assets	$236,920 01

Amount brought forward	$236,920 01

Non-Ledger Assets.

Interest due and accrued on bonds	1,500 00
Gross assets	$238,420 01

Deduct Assets Not Admitted.

Bills receivable, past due, taken for marine, inland and fire risks	110 60
Book value of ledger assets over market value	3,250 00
Total	$3,360 60
Total admitted assets	$235,059 41

LIABILITIES.

Losses in process of adjustment, or in suspense	$8,448 74	
Deduct reinsurance	1,104 24	
Net amount of unpaid losses		$7,344 50
Unearned premiums at 50 per cent on hull, time risks	$5,589 77	
Unearned premiums at 100 per cent on cargo, marine risks	4,872 10	
Total unearned premiums as computed above		10,461 87
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		5 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		620 78
Total liabilities, except capital stock		$18,432 15
Statutory deposit (in New York)	$200,000 00	
Surplus over all liabilities	16,627 26	
Surplus to policyholders		216,627 26
Total		$235,059 41

RISKS AND PREMIUMS.

	Marine and inland risks.	Premiums.
Written during the year	$396,866	$14,539 10
Excess of original premiums over amount received for reinsurance	10,063,922	44,886 55
Totals	$10,460,788	$59,425 65
Expired and terminated	9,336,285	43,057 95
In force at end of the year	$1,124,503	$16,367 70
Deduct amount reinsured	27,022	316 05
Net amount in force	$1,097,481	$16,051 65

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$50,000 00
Losses incurred during the year, marine and inland	18,794 64

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Marine and inland.
Gross risks written	$10,063,922 00
Less	292,358 00
Net risks written	9,771,564 00
Gross premiums received	44,886 55
Less	3,501 50
Net premiums received	41,385 05
Net losses paid	28,715 15
Net losses incurred	7,344 50
Home office statement shows—	
Capital (paid up)	$1,250,000 00
Assets	5,812,490 93
Liabilities	2,537,501 89

FEDERAL INSURANCE COMPANY.

Jersey City, N. J.

(Incorporated, 1901. Commenced business in California December 18, 1902.)

PERCY CHUBB, President. MAX GRUNDNER, Secretary.

Agent for service in California: G. L. RATHBONE, San Francisco.

CAPITAL.

Capital stock paid in cash	$1,000,000 00	
Amount of ledger assets December 31st of previous year		$2,826,603 04

INCOME.

	Marine and inland.	
Gross premiums	$3,338,271 28	
Deduct gross amount paid for reinsurance, marine and inland, $1,904,589.85; return premiums, marine and inland, $243,703.04	2,148,292 89	
Total premiums (other than perpetuals)		$1,189,978 39
Interest on mortgage loans	$1,359 17	
Interest on bonds and dividends on stocks	90,125 45	
Interest from other sources	6,369 48	
Total interest		97,854 10
Overpayment of premiums		439 92
Received for exchange of coupon bonds for registered bonds		75 00
Agents' balances previously charged off		12 19
Increase in book value of ledger assets		1,490 84
Total income		$1,289,850 44
Total		$4,116,453 48

DISBURSEMENTS.

	Fire.	Marine and inland.	
Gross amount paid for losses	----------	$1,893,060 76	
Deduct amount received for salvage, fire, $38.82; marine and inland, $84,406.27; reinsurance, marine and inland, $1,477,661.84	$38 82	1,562,068 11	
Net amount paid for losses	$38 82	$330,992 11	$330,953 83
Expenses of adjustment, settlement of losses			3,503 00
Commissions or brokerage			473,262 08
Salaries and expenses of special and general agents			3,683 90
Salaries, fees and other charges of officers, directors, trustees, agents and employees			6,064 45
Advertising, printing and stationery			4,074 74
Postage, telegrams, telephone and express			9,146 51
Legal expenses			1,240 06
Underwriters' boards and tariff associations			501 16
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses			270 81
Inspections and surveys			4,096 17
State taxes on premiums			30,833 42
Insurance department licenses and fees			2,992 98
All other licenses, fees and taxes			3,846 72
Other disbursements			3,183 41
Interest and dividends to stockholders			80,000 00
Agents' balances charged off			6,699 58
Loss on sale or maturity of ledger assets			297 84
Decrease in book value of ledger assets			4,757 05
Total disbursements			$969,407 71
Balance			$3,147,045 77

LEDGER ASSETS.

Mortgage loans on real estate		$30,000 00
Book value of bonds and stocks		2,265,739 99
Deposits in trust companies and banks not on interest		208,274 19
Deposits in trust companies and banks on interest		210,605 31
Agents' balances, representing business written subsequent to October 1st, last		392,658 72
Agents' balances, representing business written prior to October 1st, last		39,717 56
Bills receivable, taken for marine and inland risks		50 00
Total ledger assets		$3,147,045 77

Non-Ledger Assets.

Interest due and accrued on mortgages	$112 50	
Interest due and accrued on bonds	26,687 92	
Total		26,800 42
Due from reinsurers for losses, etc.		40,748 21
Gross assets		$3,214,594 40

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$39,717 56	
Bills receivable, past due, taken for marine, inland and fire risks	50 00	
Book value of ledger assets over market value	71,044 99	
Total		110,812 55
Total admitted assets		$3,103,781 85

LIABILITIES.

Losses adjusted and unpaid, due and not due	$42,678 64	
Losses in process of adjustment, or in suspense	696,278 00	
Total claims for losses	$738,956 64	
Deduct reinsurance	381,278 00	
Net amount of unpaid losses		$357,678 64
Unearned premiums at 50 per cent on inland navigation risks	$445,680 63	
Unearned premiums on marine risks: Hull, 50 per cent, $84,290.52; time, 50 per cent, $4,926.20; trip, 100 per cent, $38,070.27	127,286 99	
Total unearned premiums as computed above		572,967 62
Dividends declared and unpaid to stockholders		50,000 00
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		1,946 82
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		39,000 00
Commissions, brokerage and other charges due or to become due to agents and brokers		44,597 53
Return premiums, $2,500; reinsurance premiums, $113,650.89		116,150 89
Premiums overpaid, page 2, line 19		439 92
Total liabilities, except capital stock		$1,182,781 42
Cash capital	$1,000,000 00	
Surplus over all liabilities	921,000 43	
Surplus to policyholders		1,921,000 43
Total		$3,103,781 85

RISKS AND PREMIUMS.

	Marine and inland risks.	Premiums.
In force December 31, 1910	$225,884,415	$1,942,445 11
Written during the year	1,249,407,557	3,338,271 28
Totals	$1,475,291,972	5,280,716 39
Expired and terminated	1,283,966,603	3,617,118 17
In force at end of the year	$191,325,369	$1,663,598 22
Deduct amount reinsured	82,346,047	555,733 25
Net amount in force	$108,979,322	$1,107,864 97

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance, about	$100,000 00
Losses incurred during the year: Marine and inland	363,288 39

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Marine and inland.
Gross risks written	$3,074,349 00
Less	191,560 00
Net risks written	2,882,789 00
Gross premiums received	27,030 21
Less	3,409 77
Net premiums received	23,620 44
Net losses paid	4,636 91
Net losses incurred	4,636 91

UNITED STATES BRANCH OF THE GENERAL MARINE INSURANCE COMPANY.

Dresden.

(Commenced business in California April 29, 1908.)

Agent for service in California: G. L. Rathbone, San Francisco, Cal.

CAPITAL.

Capital deposit	$200,000 00	
Amount of ledger assets December 31st of previous year		$385,557 44

INCOME.

	Marine and inland.	
Gross premiums	$269,402 82	
Deduct gross amount paid for reinsurance, marine and inland, $100,730.02; return premiums, marine and inland, $22,528.95	123,258 97	
Total premiums (other than perpetuals)		$146,143 85
Interest on bonds and dividends on stocks	$12,018 16	
Interest from other sources	944 54	
Total interest and rents		12,962 70
Received from home office		26,894 93
Total income		$186,001 48
Total		$571,558 92

DISBURSEMENTS.

	Marine and inland.	
Gross amount paid for losses	$131,833 08	
Deduct amount received for salvage, marine and inland, $28,990.04; reinsurance, marine and inland, $21,077.66	50,073 70	
Net amount paid for losses		$81,759 38
Expenses of adjustment, settlement of losses		679 34
Commissions or brokerage		37,386 02
Salaries and expenses of special and general agents		1,690 50
Salaries, fees and other charges of officers, directors, trustees, agents and employees		600 00
Rents, including company's occupancy of its own buildings		1,000 00
Advertising, printing and stationery		1,293 48
Postage, telegrams, telephone and express		391 45
Legal expenses		368 03
Underwriters' boards and tariff associations		65 00
Inspections and surveys		312 98
State taxes on premiums		10,004 14
Insurance department licenses and fees		899 84
All other licenses, fees and taxes		574 77
Remitted to home office		79,150 55
Tracings		742 94
Bank exchange		52 56
Subscriptions to papers		4 01
Agents' balances charged off		232 18
Loss on sale or maturity of ledger assets		152 19
Total disbursements		$217,359 36
Balance		$354,199 56

LEDGER ASSETS.

Book value of bonds and stocks	$224,587 50
Deposits in trust companies and banks not on interest	3,477 71
Deposits in trust companies and banks on interest	102,097 05
Agents' balances, representing business written subsequent to October 1st, last	18,852 31
Agents' balances, representing business written prior to October 1st, last	4,733 98
Bills receivable, taken for marine and inland risks	451 01
Total ledger assets	$354,199 56

Non-Ledger Assets.

Interest due and accrued on bonds	$1,458 33
Due from reinsurers for losses, etc.	1,304 24
Gross assets	$356,962 13

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$4,733 98	
Bills receivable, past due, taken for marine, inland and fire risks	451 01	
Book value of ledger assets over market value	4,587 50	
Total		9,772 49
Total admitted assets		$347,189 64

LIABILITIES.

Losses adjusted and unpaid, due and not due	$3,830 66	
Losses in process of adjustment, or in suspense	39,371 00	
Total claims for losses	$43,201 66	
Deduct reinsurance	500 00	
Net amount of unpaid losses		$42,701 66

Unearned premiums at 50 per cent on inland navigation risks	$1,127 91	
Unearned premiums on marine risks: Hull, 50 per cent, $4,428.92; time, 50 per cent, $1,740.75; trip, 100 per cent, $16,214.54	22,384 21	
Total unearned premiums as computed above		$23,512 12
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		1,150 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		4,000 00
Commissions, brokerage and other charges due or to become due to agents and brokers		1,313 82
Return premiums, $142.60; reinsurance premiums, $7,564 98		7,707 58
Total liabilities, except capital stock		$80,385 18
Cash capital deposit	$200,000 00	
Surplus over all liabilities	66,804 46	
Surplus to policyholders		266,804 46
Total		$347,189 64

RISKS AND PREMIUMS.

	Marine and inland risks.	Premiums.
In force December 31, 1910	$7,432,002	$131,916 30
Written during the year	79,859,837	269,402 82
Totals	$87,291,839	$401,319 12
Expired and terminated	83,025,810	366,225 07
In force at end of the year	$4,266,029	$35,094 05
Deduct amount reinsured	538,122	4,284 34
Net amount in force	$3,727,907	$30,809 71

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance, about	$50,000 00
Losses incurred during the year: Marine and inland	59,032 96

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Marine and inland.
Net risks written	$3,971,481 00
Net premiums received	17,837 47
Home office statement shows—	
Capital stock	$1,200,000 00
Assets	4,804,307 67
Liabilities	2,713,610 85

UNITED STATES BRANCH OF THE INDEMNITY MUTUAL MARINE ASSURANCE COMPANY, LIMITED.

London, England.

(Incorporated, 1824. Commenced business in California October 11, 1888.)

Agent for service in California: E. C. Evans, San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year	$471,968 23

INCOME.

	Marine and inland.	
Gross premiums	$444,534 44	
Deduct gross amount paid for reinsurance, marine and inland, $78,955.95; return premiums; marine and inland, $26,090.02	105,045 97	
Total premiums (other than perpetuals)		$339,488 47
Interest and rents		16,330 88
Remittance from home office		29,178 16
Total income		$384,997 51
Total		$856,965 74

DISBURSEMENTS.

	Marine and inland.	
Gross amount paid for losses	$240,267 85	
Deduct amount received for salvage, marine and inland, $43,182.08; reinsurance, marine and inland, $60,240.37	103,422 45	
Net amount paid for losses		$136,845 40
Expenses of adjustment, settlement of losses		2,169 59
Commissions or brokerage		22,558 36
Salaries and expenses of special and general agents		199 20
Salaries, fees and other charges of officers, directors, trustees, agents and employees		10,200 00
Rents, including company's occupancy of its own buildings		1,200 00
Advertising, printing and stationery		1,487 25
Postage, telegrams, telephone and express		417 33
Legal expenses		96 68
Furniture and fixtures, sundry office expense		571 92
Underwriters' boards and tariff associations		275 25
Inspections and surveys		312 00
Repairs and expenses on real estate		64
State taxes on premiums		6,806 10
Insurance department licenses and fees		690 52
Federal corporation tax		666 05
Registering bonds under secured debt law		450 00
Examination by New York Insurance Department		168 92
Remittance to home office		147,499 94
Loss on sale or maturity of ledger assets		50,000 00
Total disbursements		$382,615 15
Balance		$474,350 59

LEDGER ASSETS.

Book value of bonds and stocks		$345,300 00
Deposits in trust companies and banks on interest (Schedule N)		56,103 47
Agents' balances, representing business written subsequent to October 1st, last		70,592 45
Agents' balances, representing business written prior to October 1st, last		1,200 11
Cash in San Francisco agency		584 45
Cash in Chicago agency		570 11
Total ledger assets		$474,350 59

Non-Ledger Assets.

Interest due and accrued on bonds (Schedule D)		2,866 67
Gross assets		$477,217 26

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$1,200 11	
Book value of ledger assets over market value	12,500 00	
Total		13,700 11
Total admitted assets		$463,517 15

LIABILITIES.

Losses in process of adjustment, or in suspense	$58,390 85	
Deduct reinsurance	35,281 67	
Net amount of unpaid losses		$23,109 42
Unearned premiums at 50 per cent on inland navigation risks	$28,957 63	
Unearned premiums on marine risks	39,164 67	
Total unearned premiums as computed above		68,122 30
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		9,500 00
Commissions, brokerage and other charges due or to become due to agents and brokers		2,400 00
Return premiums, $7,000; reinsurance premiums, $25,112		32,112 00
Cash capital deposit	$200,000 00	
Surplus over all liabilities	128,273 38	
Surplus to policyholders		328,273 38
Total		$463,517 15

RISKS AND PREMIUMS.

	Fire.	Marine and inland.
In force December 31, 1910	$9,957,140	$220,296 98
Written during the year	129,260,050	444,534 44
Totals	$139,217,190	$664,831 42
Expired and terminated	128,985,810	533,133 45
In force at end of the year	$10,231,380	$131,697 97
Deduct amounts reinsured	1,426,199	9,855 04
Net amount in force	$8,805,181	$121,842 93

MISCELLANEOUS.

Losses incurred during the year: Marine and inland	$132,169 20

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Marine and inland.
Gross risks written	$20,834,578 00
Less	5,981 00
Net risks written	20,828,597 00
Gross premiums received	43,148 19
Less	19 48
Net premiums received	43,128 71
Net losses paid	16,904 26
Net losses incurred	18,834 92
Home office statement shows—	
Captal (paid up)	1,005,000 00
Assets	4,519,995 57
Liabilities	22,024 45

UNITED STATES BRANCH OF THE MANNHEIM INSURANCE COMPANY.

Mannheim, Germany.

(Incorporated May 24, 1879. Commenced business in California November 10, 1884.)

F. Herrmann & Co., United States Managers.

Agent for service in California: J. B. Levinson, San Francisco.

CAPITAL.

Capital deposit	$200,000 00

INCOME.

	Marine and inland.	
Gross premiums	$2,199,632 70	
Deduct gross amount paid for reinsurance, marine and inland, $823,723.79; return premiums, marine and inland, $175,956.33	999,680 12	
Total premiums (other than perpetuals)		$1,199,952 58
Interest on bonds and dividends on stocks	$18,726 67	
Interest from other sources	1,091 34	
Total interest		19,818 01
Remittances from head office		7,138 12
Total income		$1,226,908 71
Total		$1,875,842 63

DISBURSEMENTS.

	Marine and inland.	
Gross amount paid for losses	$1,431,904 20	
Deduct amount received for salvage, marine and inland, $144,575.88; reinsurance, marine and inland, $562,741.90	707,317 78	
Net amount paid for losses		$724,586 42
Commissions or brokerage		300,602 38
Allowances to local agencies for miscellaneous agency expenses		4,814 52
Salaries and expense of special and general agents		9,259 65
Salaries, fees and other charges of officers, directors, trustees, agents and employees		3,408 48
Rents, including company's occupancy of its own buildings		73 60
Advertising, printing and stationery		9,667 62
Postage, telegrams, telephone and express		3,071 53
Legal expenses		846 66
Underwriters' boards and tariff associations		3,148 21
Inspections and surveys		1,637 32
State taxes on premiums		40,742 40
Insurance department licenses and fees		7,043 62
Agents' balances charged off		498 82
Total disbursements		$1,109,401 23
Balance		$866,441 40

LEDGER ASSETS.

Book value of bonds and stocks	$607,741 39
Deposits in trust companies and banks on interest	5,744 20
Agents' balances, representing business written subsequent to October 1st, last	209,691 65
Agents' balances, representing business written prior to October 1st, last	29,098 33
Bills receivable, taken for marine and inland risks	4,165 83
Cash deposit account of Manitoba	10,000 00
Total ledger assets	$866,441 40

Non-Ledger Assets.

Interest due and accrued on bonds	$6,333 33	
Interest due and accrued on other assets, cash deposit, Manitoba	75 00	
Total		6,408 33
Gross assets		$872,849 73

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$29,098 33	
Book value of ledger assets over market value	40,991 39	
Total		70,089 72
Total admitted assets		$802,760 01

LIABILITIES.

Losses in process of adjustment, or in suspense	$134,091 93	
Losses resisted	8,837 21	
Total claims for losses	$142,929 14	
Deduct reinsurance	59,105 66	
Net amount of unpaid losses		$83,823 48
Unearned premiums pro rata on long term risks running more than one year, $12,774.24	$8,445 46	
Unearned premiums at 50 per cent per recapitulation of risks and premiums, time, hull and cargo risks, $605,425.64	302,712 82	
Unearned premiums at 100 per cent on marine risks	26,015 16	
Total unearned premiums as computed above		337,173 44
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		500 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		25,000 00
Total liabilities, except capital stock		$446,496 92
Cash capital	$200,000 00	
Surplus over all liabilities	156,263 09	
Surplus to policyholders		356,263 09
Total		$802,760 01

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$30,000 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Marine and inland.
Gross risks written	$24,878,280 00
Less	302,250 00
Net risks written	24,576,030 00
Gross premiums received	83,137 88
Less	5,838 14
Net premiums received	77,299 74
Net losses paid	49,730 83
Net losses incurred	60,979 26
Home office statement shows—	
Capital (paid up)	$500,000 00
Assets	3,133,844 02
Liabilities	1,745,194 06

UNITED STATES BRANCH OF THE MARINE INSURANCE COMPANY, LIMITED.

London, England.

(Incorporated July 30, 1836. Commenced business in California September 11, 1877.)

Agent for service in California: G. W. McNear, California.

CAPITAL.

Capital deposit	$300,000 00	
Amount of ledger assets December 31st of previous year		$1,028,563 48

INCOME.

	Marine and inland.	
Gross premiums	$1,546,855 51	
Deduct gross amount paid for reinsurance, marine and inland, $771,358.80; return premiums, marine and inland, $77,190.79	$758,305 92	
Total premiums (other than perpetuals)		$758,305 92
Interest on bonds and dividends on stocks	$30,067 16	
Interest from other sources	839 71	
Total interest		30,906 87
Received from home office		71,081 06
Total income		$860,293 85
Total		$1,888,857 33

DISBURSEMENTS.

	Marine and inland.	
Gross amount paid for losses	$690,930 24	
Deduct amount received for salvage, marine and inland, $90,533.70; reinsurance, marine and inland, $276,106.25	366,639 95	
Net amount paid for losses		$324,290 29
Expenses of adjustment, settlement of losses		3,264 89
Commissions or brokerage		208,865 18
Salaries and expenses of special and general agents		2,548 87
Salaries, fees and other charges of officers, directors, trustees, agents and employees		1,797 25
Rents, including company's occupancy of its own buildings		1,500 00
Advertising, printing and stationery		9,389 96
Postage, telegrams, telephone and express		2,877 51
Legal expenses		342 77
Underwriters' boards and tariff associations		605 22
Inspections and surveys		3,228 92
State taxes on premiums		17,893 98
Insurance department licenses and fees		1,241 67
All other licenses, fees and taxes		1,776 85
Remitted to home office		191,226 68
Tracings, $1,188.78; bank of exchange, $283.11		1,471 89
Subscriptions to papers, etc.		300 44
Examination of accounts		216 20
Premium on bond, $181.33; rent of safe, $30		211 33
Agents' balances charged off		832 86
Total disbursements		$773,882 76
Balance		$1,114,974 57

LEDGER ASSETS.

Book value of bonds and stocks	$800,822 77
Deposits in trust companies and banks not on interest	6,944 24
Deposits in trust companies and banks on interest	103,523 97
Agents' balances, representing business written subsequent to October 1st, last	184,826 60
Agents' balances, representing business written prior to October 1st, last	10,578 66
Bills receivable, taken for marine and inland risks	8,278 33
Total ledger assets	$1,114,974 57

Amount brought forward		$1,114,974 57

Non-Ledger Assets.

Interest due and accrued on bonds		6,722 09
Due from reinsurers for losses, etc.		17,117 71
Gross assets		$1,138,814 37

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$10,578 66	
Bills receivable, past due, taken for marine, inland and fire risks	223 33	
Book value of ledger assets over market value	21,882 77	
Total		32,684 76
Total admitted assets		$1,106,129 61

LIABILITIES.

Losses adjusted and unpaid, due and not due	$18,802 91	
Losses in process of adjustment, or in suspense	335,840 00	
Total claims for losses	$354,642 91	
Deduct reinsurance	140,263 00	
Net amount of unpaid losses		$214,379 91
Unearned premiums at 50 per cent on inland navigation risks	86,981 02	
Unearned premiums on marine risks: Hull, 50 per cent, $55,386.92; time, 50 per cent, $4,922.34; trip, 100 per cent, $55,047.61	115,356 87	
Total unearned premiums as computed above		202,337 89
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		1,525 25
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		20,000 00
Commissions, brokerage and other charges due or to become due to agents and brokers		28,442 36
Return premiums, $750; reinsurance premiums, $67,826.85		68,576 85
Total liabilities, except capital stock		$535,262 26
Cash capital deposit	$300,000 00	
Surplus over all liabilities	270,867 35	
Surplus to policyholders		570,867 35
Total		$1,106,129 61

RISKS AND PREMIUMS.

	Marine and inland risks.	Premiums.
In force December 31, 1910	$134,796,555	$542,866 89
Written during the year	2,868,727,718	1,546,855 51
Totals	$3,003,524,273	$2,089,722 40
Expired and terminated	2,856,148,145	1,555,303 86
In force at end of the year	$147,376,128	534,418 54
Deduct amount reinsured	28,368,418	184,790 36
Net amount in force	$119,007,710	$349,628 18

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance, about	$40,000 00
Losses incurred during the year: Marine and inland	316,446 06

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Marine and inland.
Gross risks written	$1,265,466 00
Less	429,765 00
Net risks written	835,701 00
Gross premiums received	30,710 92
Less	11,256 27
Net premiums received	19,454 65
Net losses paid	*1,541 85
Net losses incurred	4,763 11
Home office statement shows:	
Capital (paid up)	3,000,000 00
Assets	7,367,397 12
Liabilities	515,707 55

*Gross losses, $4,763.11; gross salvage, $6,304.96.

UNITED STATES BRANCH OF THE MARITIME INSURANCE COMPANY, LIMITED.

Liverpool, England.

(Incorporated February 8, 1864. Commenced business in California July 3, 1874.)

E. H. Cookson, President. J. C. Nicholson, Secretary.

Agent for service in California: Livingston, Smith & Co., San Francisco.

CAPITAL.

Capital deposit	$200,000 00	
Amount of ledger assets December 31st of previous year		$318,876 31

INCOME.

	Marine and inland.	
Gross premiums	$223,113 19	
Deduct gross amount paid for reinsurance, marine and inland, $126,693.52; return premiums, marine and inland, $16,292.20	142,985 72	
Total premiums (other than perpetual)		$80,127 47
Interest on bonds and dividends on stocks		10,200 00
Received from home office		89,493 16
Increase in book value of ledger assets		577 50
Total income		$180,398 13
Total		$499,274 44

DISBURSEMENTS.

	Marine and inland.	
Gross amount paid for losses	$142,095 46	
Deduct amount received for salvage, marine and inland, $16,924.63; reinsurance, marine and inland, $38,141.65	55,066 28	
Net amount paid for losses		$87,029 18
Expenses of adjustment, settlement of losses		811 39
Commissions or brokerage		3,735 04
Salaries, fees and other charges of officers, directors, trustees, agents and employees		2,536 67
Rents, including company's occupancy of its own buildings		179 17
Advertising, printing and stationery		305 52
Postage, telegrams, telephone and express and cables		803 63
Legal expenses		404 80
Furniture and fixtures		4 00

Underwriters' boards and tariff associations		$686 83
Inspections and surveys		326 85
State taxes on premiums		2,288 30
Insurance department licenses and fees		135 00
All other licenses, fees and taxes		543 48
Other disbursements		2,966 78
Auditing accounts		92 50
Traveling expenses		18 97
Miscellaneous expenses		291 73
Remitted to home office		20,992 16
Agents' balances charged off		3,541 89
Decrease in book value of ledger assets		6,713 55
Total disbursements		$131,440 66
Balance		$367,833 78

LEDGER ASSETS.

Book value of bonds and stocks		$258,574 40
Deposits in trust companies and banks not on interest		15,089 37
Deposits in trust companies and banks on interest		60,000 00
Agents' balances, representing business written subsequent to October 1st, last		33,495 01
Agents' balances, representing business written prior to October 1st, last		675 00
Total ledger assets		$367,833 78

Non-Ledger Assets.

Interest due and accrued on bonds		2,405 55
Gross assets		$370,239 33

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$675 00	
Book value of ledger assets over market value: Book value of bonds, $258,574.40; market value of bonds, $253,850.00	4,724 40	
Total		5,399 40
Total admitted assets		$364,839 93

LIABILITIES.

Losses in process of adjustment, or in suspense	$101,519 26	
Losses resisted	4,000 00	
Total claims for losses	$105,519 26	
Deduct reinsurance	1,612 70	
Net amount of unpaid losses		$103,906 56
Unearned premiums at 50 per cent on inland navigation risks	$17,284 53	
Unearned premiums at 100 per cent on marine risks	25,649 83	
Total unearned premiums as computed above		42,934 36
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		2,094 37
Commissions, brokerage and other charges due or to become due to agents and brokers		227 17
Reinsurance premiums		2,900 02
Total liabilities, except capital stock		$152,062 48
Cash capital deposit	$200,000 00	
Surplus over all liabilities	12,777 45	
Surplus to policyholders		212,777 45
Total		$364,839 93

RISKS AND PREMIUMS.

	Marine and inland risks.	Premiums.
In force December 31, 1910	5,342,112	104,308 87
Written during the year	25,869,932	223,113 19
Totals	$31,212,044	$327,422 06
Expired and terminated	26,869,666	245,865 90
In force at end of the year	$4,342,378	$81,556 16
Deduct amount reinsured	519,704	21,337 27
Net amount in force	$3,822,674	$60,218 89

MISCELLANEOUS.

Losses incurred during the year: Marine and inland	$168,306 04

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Marine and inland.
Gross risks written	$4,230,945 00
Less	1,750,124 00
Net risks written	2,480,821 00
Gross premiums received	93,464 34
Less	45,691 36
Net premiums received	47,772 98
Net losses paid	45,340 65
Home office statement shows—	
Capital stock	$500,000 00
Surplus	1,080,708 24

UNITED STATES BRANCH OF THE OCEAN MARINE INSURANCE COMPANY, LIMITED.

London, England.

(Incorporated March, 1888. Commenced business in United States, 1903.)

ALEX. HENRY CAMPBELL, President. W. T. RUSSELL ROSS, Secretary.

Agent for service in California: H. M. NEWHALL & Co., San Francisco.

CAPITAL.

Capital deposit	$200,000 00	
Amount of ledger assets December 31st of previous year		$356,333 37

INCOME.

	Marine and inland.	
Gross premiums	$354,002 28	
Deduct gross amount paid for reinsurance, marine and inland, $107,132.98; return premiums, marine and inland, $22,214.76	129,347 74	
Total premiums (other than perpetuals)		$224,654 54
Interest on bonds and dividends on stocks	$9,952 00	
Interest from other sources	311 46	
Total interest and rents		10,263 46
Remittance from home office		30,147 89
Agents' balances previously charged off		239 23
Total income		$265,305 12
Total		$621,638 49

DISBURSEMENTS.

	Marine and inland.	
Gross amount paid for losses	$177,122 19	
Deduct amount received for salvage, marine and inland, $42,520.94; reinsurance, marine and inland, $44,439.84	86,960 78	
Net amount paid for losses		$90,161 41
Expenses of adjustment, settlement of losses		1,082 91
Commissions or brokerage		28,533 60
Allowances to local agencies for miscellaneous agency expenses		82 50
Advertising, printing and stationery		446 24
Postage, telegrams, telephone and express and cables		380 30
Legal expenses		113 91
Underwriters' boards and tariff associations		610 35
Inspections and surveys		333 91
State taxes on premiums		7,257 95
Insurance department licenses and fees		1,096 83
Other disbursements: Federal corporation taxes, $487,77; state, county and municipal licenses, $412.50		900 27
Auditing accounts, $225.82; policy stamps and commissions on recoveries on reinsurances placed abroad, $655.19; miscellaneous expenses, $232.71		1,113 72
Remitted to home office		131,774 00
Agents' balances charged off		73 31
Decrease in book value of ledger assets		3,652 62
Total disbursements		$267,613 83
Balance		$354,024 66

LEDGER ASSETS.

Book value of bonds and stocks	$271,920 00
Deposits in trust companies and banks on interest	40,128 46
Agents' balances, representing business written subsequent to October 1st, last	40,494 91
Agents' balances, representing business written prior to October 1st, last	1,443 97
Accounts receivable, Royal Insurance Company, New York, balance due	37 32
Total ledger assets	$354,024 66

Non-Ledger Assets.

Interest due and accrued on bonds	2,826 66
Due from other companies for reinsurance on losses already paid	256 27
Gross assets	$357,107 59

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$1,443 97	
Book value of bonds, $271,920.00; market value of bonds, $267,800.00	4,120 00	
Total		5,563 97
Total admitted assets		$351,543 62

LIABILITIES.

Losses in process of adjustment, or in suspense	$54,203 26	
Losses resisted	455 72	
Total claims for losses	$54,658 98	
Deduct reinsurance	7,242 00	
Net amount of unpaid losses		$47,416 98

Amount brought forward		$47,416 98
Unearned premiums at 50 per cent on inland navigation risks	$26,633 28	
Unearned premiums at 100 per cent on marine risks	11,845 34	
Total unearned premiums as computed above		38,478 62
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		376 51
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		8,850 05
Commissions, brokerage and other charges due or to become due to agents and brokers		655 02
Reinsurance premiums		5,520 03
Total liabilities, except capital stock		$101,297 21
Cash capital deposit	$200,000 00	
Surplus over all liabilities	50,246 41	
Surplus to policyholders		250,246 41
Total		$351,543 62

RISKS AND PREMIUMS.

	Marine and inland risks.	Premiums.
In force December 31, 1910	$5,392,857	$63,216 63
Written during the year	144,034,342	354,002 28
Totals	$149,427,199	$417,218 91
Expired and terminated	144,627,349	346,400 33
In force at end of the year	$4,799,850	$70,818 58
Deduct amount reinsured	966,244	5,706 68
Net amount in force	$3,833,626	$65,111 90

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$25,000 00
Losses incurred during the year	97,933 92

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Marine and inland.
Gross risks written	$4,832,662 00
Less	106,558 00
Net risks written	4,726,104 00
Gross premiums received	27,191 00
Less	2,302 64
Net premiums received	24,888 36
Net losses paid	3,085 13
Net losses incurred	8,948 68
Home office statement shows—	
Capital (paid up)	$500,000 00
Assets	3,685,530 00
Liabilities	423,790 00

OLD COLONY INSURANCE COMPANY.

Boston, Mass.

(Incorporated June 2, 1906. Commenced business in California, 1910.)

Ransom B. Fuller, President. Charles D. Hodges, Secretary.

Agent for service in California: Gordon & Hoadley, San Francisco.

CAPITAL.

Capital stock paid in cash	$400,000 00	
Amount of ledger assets December 31st of previous year		$872,891 20

INCOME.

	Fire.	Marine and inland.	
Gross premiums	$687,017 28	$220,547 25	
Deduct gross amount paid for reinsurance, fire, $137,904; marine and inland, $58.301.47; return premiums, fire, $145.516.60; marine and inland, $43,949.26	283,420 60	102,250 73	
Total premiums (other than perpetuals)	$403.596 68	$118,296 52	$521,893 20
Interest on mortgage loans		$2,312 50	
Interest on bonds and dividends on stocks		34.070 00	
Interest from other sources		1,207 88	
Total interest			37,590 38
Amount subscribed to surplus			300,000 00
Received from sale of rights—American Telegraph and Telephone Company stock			3,825 00
Agents' balances previously charged off			6 10
Profit on sale or maturity of ledger assets			1,200 00
Total income			$864,514 68
Total			$1,737,405 88

DISBURSEMENTS.

	Fire.	Marine and inland.	
Gross amount paid for losses	$357,628 65	$72,929 16	
Deduct amount received for salvage, fire, $5,238.99; marine and inland, $1.735.76; reinsurance, fire, $83,283.37; marine and inland, $22,392.40; discount, fire, $231.99; marine and inland, $19.61	88,754 35	24,147 77	
Net amount paid for losses	$268,874 30	$48,781 39	$317,655 69
Expenses of adjustment, settlement of losses			5,686 15
Commissions or brokerage			117,607 68
Allowances to local agencies for miscellaneous agency expenses			2,200 75
Salaries and expenses of special and general agents			8,001 86
Salaries, fees and other charges of officers, directors, trustees, agents and employees			17,687 81
Rents, including company's occupancy of its own buildings			500 04
Advertising, printing and stationery			3,976 64
Postage, telegrams, telephone and express			728 16
Legal expenses			327 08
Furniture and fixtures			25 19
Maps, including corrections			53 70
Underwriters' boards and tariff associations			3,157 81
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses			5,624 66
Inspections and surveys			3,566 80
Taxes on real estate			153 82
State taxes on premiums			6.762 02
Insurance department licenses and fees			5,016 96
All other licenses, fees and taxes			1,062 12
Interest allowed for advance payment of marine premiums			124 55
Commissions on purchase of stock			229 89
Miscellaneous expenses			445 97
Agents' balances charged off			239 84
Loss on sale or maturity of ledger assets			539 53
Total disbursements			$501.374 72
Balance			$1,236,031 16

LEDGER ASSETS.

Mortgage loans on real estate		$60,000 00
Book value of bonds and stocks		1,033,501 51
Cash in office		9,479 78
Deposits in trust companies and banks on interest		56,819 16
Agents' balances, representing business written subsequent to October 1st, last		75,772 46
Agents' balances, representing business written prior to October 1st, last		258 25
Cash deposited with fire boards		200 00
Total ledger assets		$1,236,031 16

Non-Ledger Assets.

Interest due and accrued on mortgages	$60 00	
Interest due and accrued on bonds	3,075 00	
Total		$3,135 00
Gross assets		$1,239,166 16

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$258 25	
Book value of ledger assets over market value	7,486 51	
Cash deposited with fire boards	200 00	
Total		7,944 76
Total admitted assets		$1,231,221 40

LIABILITIES.

Losses adjusted and unpaid, due and not due	$6,263 21	
Losses in process of adjustment, or in suspense	68,170 70	
Losses resisted	4,009 30	
Total claims for losses	$78,443 21	
Deduct reinsurance	17,351 86	
Net amount of unpaid losses		$61,091 35
Unearned premiums at 50 per cent on fire risks running one year or less	$145,373 74	
Unearned premiums pro rata on fire risks running more than one year	156,186 78	
Unearned premiums at 50 per cent on inland navigation risks	33,474 51	
Unearned premiums at 50 per cent on marine risks	15,614 92	
Total unearned premiums as computed above		350,649 95
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		267 68
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		3,267 98
Commissions, brokerage and other charges due or to become due to agents and brokers		7,147 84
Reinsurance premiums		480 19
Total liabilities, except capital stock		$422,904 99
Cash capital	$400,000 00	
Surplus over all liabilities	408,316 41	
Surplus to policyholders		808,316 41
Total		$1,231,221 40

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
In force December 31, 1910	$73,244,977	$830,398 49
Written during the year	65,303,827	687,017 28
Totals	$138,548,804	$1,517,415 77
Expired and terminated	61,744,306	699,338 08
In force at end of the year	$76,804,498	$818,077 69
Deduct amount reinsured	18,884,056	226,965 02
Net amount in force	$57,920,442	$591,112 67

	Marine and inland risks.	Premiums.
In force December 31, 1910	$2,872,642	$76,937 13
Written during the year	9,175,432	220,547 25
Totals	$12,048,074	$297,484 38
Expired and terminated	6,957,128	145,694 59
In force at end of the year	$5,090,946	$151,789 79
Deduct amount reinsured	1,893,051	53,610 93
Net amount in force	$3,197,895	$98,178 86

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$26,967,263	$290,747 47
More than one and not more than three years to run	27,182,644	256,708 13
More than three years to run	3,770,535	43,657 07
Net amount in force December 31, 1911	$57,920,442	$591,112 67

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$37,500 00
Losses incurred during the year: Fire, $273,139.49; marine and inland, $326.98; tornado, $2,492.39	330,758 88

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Marine and inland.
Gross risks written	$393,411 00
Less	256,368 00
Net risks written	137,043 00
Gross premiums received	10,403 65
Less	6,088 63
Net premiums received	4,315 02
Net losses paid	1,686 67
Net losses incurred	1,831 92

UNITED STATES BRANCH OF THE RELIANCE MARINE INSURANCE COMPANY.

Liverpool, England.

(Organized February 11, 1881. Commenced business February 16, 1881. Commenced business in the United States, February, 1890.)

GEO. CROW, President. F. R. EDWARDS, Secretary.

Agent for service in California: HENRY LUND & CO., San Francisco.

CAPITAL.

Capital deposit	$200,000 00	
Amount of ledger assets December 31st of previous year		$303,142 91

INCOME.

	Marine and inland.	
Gross premiums	$312,046 67	
Deduct gross amount paid for reinsurance, marine and inland, $61,818.47; return premiums, marine and inland, $28,067.34	89,885 81	
Total premiums (other than perpetuals)		$222,160 86
Interest on bonds and dividends on stocks		12,185 00
Received from home office		19,374 45
Agents' balances previously charged off		239 23
Increase in book value of ledger assets		119 88
Total income		$254,079 42
Total		$647,222 33

DISBURSEMENTS.

	Marine and inland.	
Gross amount paid for losses, $81,267.21	$171,420 02	
Deduct amount received for salvage, marine and inland, $42,456.31; reinsurance, marine and inland, $31,063.16	73,519 47	
Net amount paid for losses		$97,900 55
Expenses of adjustment, settlement of losses		1,149 20
Commissions or brokerage		30,116 78
Allowances to local agencies for miscellaneous agency expenses		102 89
Advertising, printing and stationery		246 73
Postage, telegrams, telephone and express		415 02
Legal expenses		108 57
Underwriters' boards and tariff associations		539 29
Inspections and surveys		337 88
State taxes on premiums		7,072 06
Insurance department licenses and fees		716 48
State, county and municipal licenses		1,208 95
Auditing accounts		225 82
Policy fees and commissions on recoveries on reinsurance placed abroad		356 59
Miscellaneous expenses		372 53
Interest and dividends to stockholders		115,603 56
Agents' balances charged off		776 92
Decrease in book value of ledger assets		709 19
Total disbursements		$257,959 01
Balance		$389,263 32

LEDGER ASSETS.

Book value of bonds and stocks	$352,182 13
Cash in office	9,430 25
Agents' balances, representing business written subsequent to October 1st, last	27,126 93
Agents' balances, representing business written prior to October 1st, last	486 69
Accounts receivable: Royal Insurance Company, New York, balance of account	37 32
Total ledger assets	$387,263 32

Non-Ledger Assets.

Interest due and accrued on bonds	2,603 75
Due from other companies for reinsurance on losses paid (see schedule E)	22 28
Gross assets	$391,889 35

Amount brought forward		$391,889 35

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$486 69	
Book value of bonds over market value	27,162 13	
Total		27,648 82
Total admitted assets		$364,240 53

LIABILITIES.

Losses in process of adjustment, or in suspense, plus $2,246 reserved for losses	$47,181 85	
Losses resisted	441 74	
Total claims for losses	$47,623 59	
Deduct reinsurance	2,342 00	
Net amount of unpaid losses		$45,281 59
Unearned premiums at 50 per cent on inland navigation risks	$21,320 00	
Unearned premiums at 100 per cent on marine risks	9,597 24	
Total unearned premiums as computed above		30,917 28
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		266 99
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		7,849 71
Commissions, brokerage and other charges due or to become due to agents and brokers		782 06
Reinsurance premiums		4.031 81
Total liabilities, except capital stock		89,129 44
Cash capital deposit	$200,000 00	
Surplus over all liabilities	75,111 09	
Surplus to policyholders		275,111 09
Total		$364,240 53

RISKS AND PREMIUMS.

	Marine and inland risks.	Premiums.
In force December 31, 1910	$4,215,555	$60,745 61
Written during the year	96,850,059	312,046 67
Totals	$101,065,610	$372,792 28
Expired and terminated	96,496,354	312,586 29
In force at end of the year	$4,569.256	$60.205 99
Deduct amount reinsured (schedule A)	460,688	7,902 70
Net amount in force	$4,108,568	$52,303 29

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Marine and inland.
Gross risks written	$483.980 00
Less	28,795 00
Net risks written	455,185 00
Gross premiums received	7,133 33
Less	247 39
Net premiums received	6,885 94
Net losses paid	1,177 30
Home office statement shows—	
Capital (paid up)	$500,000 00
Assets	1,907,817 51
Liabilities	326,004 17

UNITED STATES BRANCH OF THE SEA INSURANCE COMPANY.

Liverpool, England.

(Incorporated December 31, 1875. Commenced business in California July 19, 1896.)

Agent for service in California: MEYER, WILSON & Co., San Francisco.

CAPITAL.

Capital deposit	$700,000 00	
Amount of ledger assets December 31st of previous year		$1,243.392 91

INCOME.

	Marine and inland	
Gross premiums	$3,318,853 49	
Deduct gross amount paid for reinsurance, marine and inland, $2,409.818.42; return premiums, marine and inland, $72,765.40	2,482,583 82	
Total premiums (other than perpetuals)		$836,269 67
Interest on bonds and dividends on stocks	$27.256 04	
Interest on deposits in trust companies, etc.	1,854 03	
Interest from other sources	68 62	
Total interest		29.178 69
Received from home office	$248,802 91	
Profit on exchange	39 74	
Agents' balances previously charged off		664 93
Total income		$1,114,955 94
Total		$2,358,348 85

DISBURSEMENTS.

	Marine and inland.	
Gross amount paid for losses	$1,283,332 63	
Deduct amount received for salvage, marine and inland, $89.697.29; reinsurance, marine and inland, $871,174.54	960,871 83	
Net amount paid for losses		$322.460 80
Expenses of adjustment, settlement of losses		2,978 23
Commissions or brokerage		2,206,660 42
Salaries and expenses of special and general agents		2,491 96
Salaries, fees and other charges of officers, directors, trustees, agents and employees		971 26
Advertising, printing and stationery		2.055 94
Postage, telegrams, telephone and express		1,965 22
Legal expenses		455 37
Underwriters' boards and tariff associations		227 85
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		8 15
Inspections and surveys		3.237 75
State taxes on premiums		23.353 43
Insurance department licenses and fees		931 82
All other licenses, fees and taxes		1.372 20
Subscriptions to papers		260 35
Examination of accounts		208 38
Tracing		1.720 39
Remittances, home office		246.641 64
Agents' balances charged off		986 40
Total disbursements		$832.987 56
Balance		$1,525.361 29

LEDGER ASSETS.

Book value of bonds and stocks	$859,220 00
Deposits in trust companies and banks on interest	54,088 94
Agents' balances, representing business written subsequent to October 1st, last	588,438 58
Agents' balances, representing business written prior to October 1st, last	17,540 10
Bills receivable, taken for marine and inland risks	6,073 67
Total ledger assets	$1,525,361 29

Non-Ledger Assets.

Interest due and accrued on bonds	8,145 81
Due from reinsurers for losses, etc. (per list)	112,728 68
Gross assets	$1,646,235 78

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$17,540 10	
Bills receivable, past due, taken for marine, inland and fire risks	6,073 67	
Book value of ledger assets over market value	37,230 00	
Total		60,843 77
Total admitted assets		$1,585,392 01

LIABILITIES.

Losses adjusted and unpaid, due and not due	$80,306 54	
Losses in process of adjustment, or in suspense	679,044 00	
Total claims for losses	$759,350 54	
Deduct reinsurance	405,930 00	
Net amount of unpaid losses		$353,420 54
Unearned premiums at 50 per cent on inland navigation risks	$74,633 69	
Unearned premiums on marine risks	135,625 84	
Total unearned premiums as computed above		200,259 53
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		1,047 27
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		25,000 00
Commissions, brokerage and other charges due or to become due to agents and brokers		63,540 25
Return premiums, $2,063.62; reinsurance premiums, $48,952,694		491,590 56
Total liabilities, except capital stock		$1,134,858 15
Cash capital deposit	$300,000 00	
Surplus over all liabilities	150,533 86	
Surplus to policyholders		450,533 86
Total		$1,585,392 01

RISKS AND PREMIUMS.

	Marine and inland risks.	Premiums.
In force December 31, 1910	$125,453,357	$736,813 79
Written during the year	784,870,903	3,318,853 49
Totals	$910,324,260	4,055,667 28
Expired and terminated	793,682,191	3,413,253 36
In force at end of the year	$116,642,069	$624,413 92
Deduct amount reinsured	72,248,733	297,664 99
Net amount in force	$44,393,336	$344,748 93

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance, about	$50,000 00
Losses incurred during the year: Inland, $47,615.97; marine, $336,050.83	$383,666 80

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Marine and inland.
Gross risks written	$8,973,123 63
Less	517,941 00
Net risks written	8,455,182 63
Gross premiums received	43,791 82
Less	2,637 97
Net premiums received	41,153 85
Net losses paid	8,748 84
Net losses incurred	17,195 26
Home office statement shows—	
Capital (paid up)	$500,000 00
Assets	5,670,298 57
Liabilities	1,727,610 07

UNITED STATES BRANCH OF STANDARD MARINE INSURANCE COMPANY, LIMITED.

Liverpool, England.

(Incorporated Dec. 6, 1871. Commenced business in United States, Jan. 1, 1872.)

W. J. Roberts, United States Manager.

Agent for service in California: J. D. Spreckels Bros. & Co., San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year	$1,312,612 28

INCOME.

	Marine and inland.	
Gross premiums	$2,091,702 27	
Deduct gross amount paid for reinsurance, marine and inland, $871,713.21; return premiums, marine and inland, $264,289.19	1,136,011 40	
Total premiums (other than perpetuals)		$955,690 87
Interest on bonds and dividends on stocks	$25,662 17	
Interest from other sources	1,257 60	
Total interest and rents		26,919 77
Receipts from head office		342,606 44
Agents' balances previously charged off		1,920 93
Total income		$2,639,750 29
Total		$1,327,138 01

DISBURSEMENTS.

	Marine and inland.	
Gross amount paid for losses	$759,589 14	
Deduct amount received for salvage, marine and inland, $249,714.73; reinsurance, marine and inland, $283,099.89	532,814 62	
Net amount paid for losses		$226,774 52
Expenses of adjustment, settlement of losses		12,150 00
Commissions or brokerage		135,966 30
Salaries, fees and other charges of officers, directors, trustees,		

Rents, including company's occupancy of its own buildings		$2,075 27
Advertising, printing and stationery		3,729 36
Postage, telegrams, telephone and express		2,428 67
Legal expenses		569 18
Furniture and fixtures		344 95
Underwriters' boards and tariff associations		648 82
State taxes on premiums		38,804 74
Insurance department licenses and fees		2,793 80
All other licenses, fees and taxes		2,607 79
Traveling expenses		1,180 85
Sundry office expenses		2,674 74
Remittance to head office		824,886 31
Agents' balances charged off		819 18
Total disbursements		$1,292,127 62
Balance		$1,347,622 67

LEDGER ASSETS.

Book value of bonds and stocks		$678,979 00
Cash in office		19 79
Cash in course of remittance		24,000 00
Deposits in trust companies and banks not on interest		50,506 87
Deposits in trust companies and banks on interest		149,064 66
Agents' balances, representing business written subsequent to October 1st, last		441,927 07
Agents' balances, representing business written prior to October 1st, last		3,125 28
Total ledger assets		$1,347,622 67

Non-Ledger Assets.

Interest due and accrued on bonds		8,656 03
Due from other companies		23,625 23
Gross assets		$1,379,903 93

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$3,125 28	
Book value of ledger assets over market value: Book value, $678,979; market value, $659,638	19,341 00	
Due from non-admitted companies for reinsurance on losses paid	1,604 01	
Total		24,070 29
Total admitted assets		$1,355,833 64

LIABILITIES.

Losses in process of adjustment, or in suspense	$358,995 67	
Losses resisted	5,000 00	
Total claims for losses	$363,995 67	
Deduct reinsurance	141,046 39	
Net amount of unpaid losses		$222,949 28
Unearned premiums at 100 per cent on marine risks		183,515 07
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		509 15
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement, *i. e.*, $27,000 less $12,000 due from reinsurance companies for taxes paid account 1910		15,000 00
Commissions, brokerage and other charges due or to become due to agents and brokers		10,204 99
Reinsurance premiums		322,567 06
Total liabilities, except capital stock		$754,745 55
Surplus to policyholders		601,088 09
Total		$1,355,833 64

RISKS AND PREMIUMS.

	Marine and inland risks.	Premiums.
In force December 31, 1910	$55,112,357	$402,023 58
Written during the year	231,082,206	2,091,702 27
Excess of original premiums over amount received for reinsurance	----------	4 80
Totals	$286,194,563	$2,493,730 65
Expired and terminated	249,541,448	2,161,950 87
In force at end of the year	$36,653,115	$331,779 78
Deduct amount reinsured	21,934,877	148,264 71
Net amount in force	$14,718,238	183,515 07

MISCELLANEOUS.

Losses incurred during the year: Ocean marine	$339,925 49

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Marine and inland.
Net risks written	$15,019,744 00
Net premiums received	69,751 22
Net losses paid	47,943 86

SUBSCRIBERS AT UNITED STATES "LLOYDS" INSURANCE COMPANY.

New York, N. Y.

(Organized November, 1872.)

A. Foster Higgins, Herbert Appleton, Douglas F. Cox, Attorneys for the subscribers under the firm name of Higgins & Cox.

Agent for service in California: Wm. H. La Boyteaux, San Francisco.

CAPITAL.

Original deposit	$100,000 00	
Amount of ledger assets, December 31st of previous year		$1,455,712 85

INCOME.

	Fire.	Marine and inland.	
Gross premiums	$32 00	$3,219,680 43	
Deduct gross amount paid for reinsurance, marine and inland, $1,079,799.07; return premiums, marine and inland, $340,914.12	------------	1,420,713 49	
Total premiums (other than perpetuals)	$32 00	$1,798,967 24	$1,798,999 24
Interest on bonds and dividends on stocks		$28,195 83	
Interest from other sources		6,613 65	
Rents, including company's occupancy of its own buildings		687 13	
Total interest and rents			35,496 51
Exchange			1,000 55
Increase in book value of ledger assets			1,075 00
Total income			$1,836,571 30
Total			$3,292,284 15

DISBURSEMENTS.

	Marine and Inland.	
Gross amount paid for losses, $386,295.17	$1,882,396 79	
Deduct amount received for salvage, marine and inland, $355,289.39; reinsurance, marine and inland, $636,565.84	991,854 23	
Net amount paid for losses		$890,542 56
Expenses of adjustment, settlement of losses		34,323 20
Commissions or brokerage		382,994 93
Allowances to local agencies for miscellaneous agency expenses		8,749 03
Salaries, fees and other charges of officers, directors, trustees, agents and employees		111,740 56
Rents, including company's occupancy of its own buildings		8,321 14
Advertising, printing and stationery		7,433 65
Postage, telegrams, telephone and express		3,903 21
Legal expenses		1,330 99
Furniture and fixtures		515 40
Underwriters' boards and tariff associations		1,307 50
Fire department, fire patrol and salvage corps assessments, fees, taxes and expenses		139 22
Inspections and surveys		2,946 36
State taxes on premiums		22,898 41
Insurance department licenses and fees		4,326 50
Miscellaneous office expenses		8,022 69
Interest and dividends to subscribers		50,000 00
Decrease in book value of ledger assets		2,031 25
Total disbursements		$1,541,526 60
Balance		$1,750,757 55

LEDGER ASSETS.

Book value of bonds and stocks	$779,250 00
Cash in office	2,100 47
Deposits in trust companies and banks not on interest	31,819 22
Deposits in trust companies and banks on interest	369,684 37
Agents' balances, representing business written subsequent to October 1st, last	497,144 75
Agent's balances, representing business written prior to October 1st, last	47,671 27
Cash with Morgan, Grenfell & Co., London, on interest	23,023 33
Cash with Brodrick, Leitch & Kendall, Liverpool, not on interest	64 14
Total ledger assets	$1,750,757 55

Non-Ledger Assets.

Interest due and accrued on bonds	9,483 33
Market value of bonds and stocks over book value	4,250 00
Gross assets	$1,764,490 88

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	47,671 27
Total admitted assets	$1,716,819 61

LIABILITIES.

Losses in process of adjustment, or in suspense	$443,649 00	
Losses resisted	19,171 00	
Total claims for losses	$462,820 00	
Deduct reinsurance	215,701 25	
Net amount of unpaid losses		$247,118 75
Unearned premiums at 50 per cent on fire risks running one year or less	$16 00	
Unearned premiums at 50 per cent on inland navigation risks	187,662 89	
Unearned premiums on marine risks	321,506 13	
Total unearned premiums as computed above		509,185 02
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		1,000 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		25,000 00
Commissions, brokerage and other charges due or to become due to agents and brokers		39,768 15
Return premiums, $32,884.74; reinsurance premiums, $245,468.30		278,353 04
Total liabilities, except capital stock		$1,100,424 96
Cash (original deposit)	$100,000 00	
Surplus over all liabilities	516,394 65	
Surplus to policyholders		616,394 65
Total		$1,716,819 61

RISKS AND PREMIUMS.

	Fire risks.	Premiums.
Written during the year	$4,000	$32 00
Expired and terminated		16 00
In force at end of the year	$4,000	$16 00

	Marine and inland risks.	Premiums.
In force December 31, 1910	$92,320,853	$830,785 69
Written during the year	657,276,807	3,219,680 43
Totals	$749,597,660	$4,050,466 12
Expired and terminated	656,551,061	3,183,325 47
In force at end of the year	$93,046,599	$867,140 65
Deduct amount reinsured	47,057,044	357,971 65
Net amount in force	$45,989,555	$509,169 02

RECAPITULATION OF FIRE RISKS IN FORCE AND PREMIUMS THEREON.

	Risks.	Premiums.
In force, having from date of policy not more than one year to run	$4,000	$16 00
Net amount in force December 31, 1911	$4,000	$16 00

MISCELLANEOUS.

Losses incurred during the year: Marine and inland	$1,074,452 05

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Marine and inland.
Gross risks written	$5,309,195 00
Less	274,306 00
Net risks written	5,034,889 00
Gross premiums received	43,067 03
Less	7,379 98
Net premiums received	35,687 05
Net losses paid	36,474 02
Net losses incurred	35,923 49

UNITED STATES BRANCH OF THE SWITZERLAND GENERAL INSURANCE COMPANY.

Zurich, Switzerland.

(Incorporated, 1869. Commenced business in California October 7, 1874.)

Agent for service in California: Louis Rosenthal, San Francisco.

CAPITAL.

Capital deposit	$225,000 00	
Amount of ledger assets December 31st of previous year		$469,551 28

INCOME.

	Marine and inland.	
Gross premiums	$473,338 72	
Deduct gross amount paid for reinsurance, marine and inland, $43,908.57; return premiums, marine and inland, $14,864.50	58,773 07	
Total premiums (other than perpetuals)		$414,565 65
Interest on bonds and dividends on stocks		15,325 00
Received from home office		37,229 56
Total income		$467,120 21
Total		$936,671 49

DISBURSEMENTS.

	Marine and inland.	
Gross amount paid for losses	$255,873 88	
Deduct amount received for salvage, marine and inland, $41,090.16; reinsurance, marine and inland, $13,305.92	54,396 08	
Net amount paid for losses		$201,477 80
Expenses of adjustment, settlement of losses		3,170 00
Commissions or brokerage		71,905 37
Allowances to local agencies for miscellaneous agency expenses		4,123 47
Salaries, fees and other charges of officers, directors, trustees, agents and employees		8,530 00
Rents, including company's occupancy of its own buildings		1,500 00
Advertising, printing and stationery		908 82
Postage, telegrams, telephone and express		260 47
Legal expenses		38 81
Inspections and surveys		110 91
State taxes on premiums		6,365 94
Insurance department licenses and fees		174 25
Federal corporation tax		824 12
Personal tax		275 59
State tax		760 03
Remitted to home office		152,016 20
Total disbursements		$452,441 78
Balance		$484,229 71

LEDGER ASSETS.

Book value of bonds and stocks	$421,784 85
Deposits in trust companies and banks not on interest	50,079 84
Agents' balances, representing business written subsequent to October 1st, last	12,365 02
Total ledger assets	$484,229 71

Amount brought forward	$484,229 71

Non-Ledger Assets.

Interest due and accrued on bonds	3,758 32
Gross assets	$487,988 03

Deduct Assets Not Admitted.

Book value of ledger assets over market value	11,584 85
Total admitted assets	$476,403 18

LIABILITIES.

Losses in process of adjustment, or in suspense	$108,444 14	
Deduct reinsurance	5,755 00	
Net amount of unpaid losses		$102,689 14
Unearned premiums at 50 per cent on inland navigation risks	$34,115 47	
Unearned premiums at 100 per cent on marine risks	19,514 72	
Total unearned premiums as computed above		53,630 19
Commissions, brokerage and other charges due or to become due to agents and brokers		9,262 97
State tax		3,013 29
Total		$168,595 59
Surplus to policyholders		307,807 59
Total		$476,403 18

RISKS AND PREMIUMS.

	Marine and inland risks.	Premiums.
In force December 31, 1910	$3,120,710	$91,156 71
Written during the year	134,255,865	473,338 72
Totals	$137,376,575	$564,495 43
Expired and terminated	134,079,655	466,704 24
In force at end of the year	$3,296,919	$97,791 19
Deduct amount reinsured	305,306	10,045 53
Net amount in force	$2,991,613	$87,745 66

MISCELLANEOUS.

Losses incurred during the year: Marine and inland	$217,353 35

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Marine and inland.
Gross risks written	$44,260,037 00
Less	5,334,115 00
Net risks written	38,925,922 00
Gross premiums received	217,336 25
Less	52,222 22
Net premiums received	165,114 03
Net losses paid	63,134 26

UNITED STATES BRANCH OF THE THAMES AND MERCEY MARINE INSURANCE COMPANY.

Liverpool, England.

(Incorporated, 1860. Commenced business in California August 21, 1876.)

Agent for service in California: LOUIS ROSENTHAL, San Francisco.

CAPITAL.

Capital deposit	$300,000 00	
Amount of ledger assets December 31st of previous year		$840,596 31

INCOME.

	Marine and inland.	
Gross premiums	$1,204,313 14	
Deduct gross amount paid for reinsurance, marine and inland, $441,415.26; return premiums, marine and inland, $113,951.72	555,366 98	
Total premiums (other than perpetuals)		$648,946 16
Interest on bonds and dividends on stocks		24,150 00
Received from and account of home office		232,131 59
Total income		$905,227 75
Total		$1,745,824 06

DISBURSEMENTS.

	Marine and inland.	
Gross amount paid for losses	$540,291 50	
Deduct amount received for salvage, marine and inland, $226,214.70; reinsurance, marine and inland, $108,405.49	334,620 19	
Net amount paid for losses		$205,671 31
Expenses of adjustment, settlement of losses		1,074 00
Commissions or brokerage		70,355 10
Salaries and expenses of special and general agents		5,988 77
Salaries, fees and other charges of officers, directors, trustees, agents and employees		33,572 53
Rents, including company's occupancy of its own buildings		5,031 25
Advertising, printing and stationery		2,690 94
Postage, telegrams, telephone and express		1,806 29
Legal expenses		91 87
Furniture and fixtures		686 18
Underwriters' boards and tariff associations		914 06
Inspections and surveys		493 82
State taxes on premiums		25,929 95
Insurance department licenses and fees		1,519 75
Miscellaneous expenses		2,325 44
Remitted to and paid for account of home office		476,049 17
Total disbursements		$834,200 43
Balance		$911,623 63

LEDGER ASSETS.

Book value of bonds and stocks	$664,083 50
Cash in office	32 93
Deposits in trust companies and banks not on interest	24,832 70
Agents' balances, representing business written subsequent to October 1st, last	208,040 40
Agents' balances, representing business written prior to October 1st, last	10,757 48
Bills receivable, taken for marine and inland risks	3,876 62
Total ledger assets	$911,623 63

Amount brought forward		$911,623 63

Non-Ledger Assets.

Interest due and accrued on bonds		3,318 75
Gross assets		$914,942 38

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$10,757 48	
Book value of ledger assets over market value	74,258 50	
Total		85,015 98
Total admitted assets		$829,926 40

LIABILITIES.

Losses adjusted and unpaid, due and not due	$264,297 00	
Deduct reinsurance	85,924 00	
Net amount of unpaid losses		$178,373 00
Unearned premiums at 50 per cent on inland navigation risks	$50,701 30	
Unearned premiums at 100 per cent on marine risks	63,369 98	
Total unearned premiums as computed above		114,071 28
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		4,500 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		17,500 00
Commissions, brokerage and other charges due or to become due to agents and brokers		3,854 00
Reinsurance premiums		159,415 56
Total		$477,713 84
Cash capital	$300,000 00	
Surplus over all liabilities	52,212 56	
Surplus to policyholders		352,212 56
Total		$829,926 40

RISKS AND PREMIUMS.

	Marine and inland risks.	Premiums.
In force December 31, 1910	$19,787,987	$217,741 88
Written during the year	192,979,054	1,204,313 14
Totals	$212,767,041	$1,422,055 02
Expired and terminated	192,097,523	1,168,770 26
In force at end of the year	$20,669,518	$253,284 76
Deduct amount reinsured	7,266,716	88,512 19
Net amount in force	$13,402,802	$164,772 57

MISCELLANEOUS.

Losses incurred during the year: Marine and inland	$317,293 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Marine and inland.
Gross risks written	$15,409,649 00
Less	7,072,190 00
Net risks written	8,337,459 00
Gross premiums received	98,086 65
Less	62,119 29
Net premiums received	35,967 36
Net losses paid	36,747 77
Net losses incurred	36,747 77
Home office statement shows—	
Capital (paid up)	$1,000,000 00
Assets	5,460,251 75
Liabilities	1,315,297 50

UNITED STATES BRANCH OF THE UNION MARINE INSURANCE COMPANY.

Liverpool, England.

(Incorporated, 1863. Commenced business in California July 3, 1874.)

F. Herrmann & Co., United States Managers.

Agent for service in California: J. B. Levison, San Francisco, Cal.

CAPITAL.

Capital deposit	$200,000 00	
Amount of ledger assets December 31st of previous year		$684,267 44

INCOME.

	Marine and inland.	
Gross premiums	$1,764,578 00	
Deduct gross amount paid for reinsurance, marine and inland, $723,637.29; return premiums, marine and inland, $174,444.78	898,082 09	
Total premiums (other than perpetuals)		$866,495 93
Interest on bonds and dividends on stocks	$21,299 12	
Interest from other sources	766 94	
		22,066 06
Total income		$888,561 99
Total		$1,572,829 43

DISBURSEMENTS.

	Marine and inland.	
Gross amount paid for losses	$1,112,853 32	
Deduct amount received for salvage, marine and inland, $84,173.02; reinsurance, marine and inland, $491,638.04	575,811 06	
Net amount paid for losses		$537,042 26
Commissions or brokerage		192,337 49
Allowances to local agencies for miscellaneous agency expenses		3,669 69
Salaries and expenses of special and general agents		3,676 83
Salaries, fees and other charges of officers, directors, trustees, agents and employees		3,638 44
Rents, including company's occupancy of its own buildings		48 30
Advertising, printing and stationery		6,419 85
Postage, telegrams, telephone and express		2,052 73
Legal expenses		555 62
Underwriters' boards and tariff associations		2,141 04
Inspections and surveys		1,074 48
State taxes on premiums		25,173 43
Insurance department licenses and fees		4,594 48
Remitted to home office		12,312 80
Investment expenses		12 50
Agents' balances charged off		2,022 26
Total disbursements		$796,772 20
Balance		$776,057 23

LEDGER ASSETS.

Book value of bonds and stocks	$571,956 97
Deposits in trust companies and banks on interest	7,262 66
Agents' balances, representing business written subsequent to October 1st, last	150,861 19
Agents' balances, representing business written prior to October 1st, last	43,593 56
Bills receivable, taken for marine and inland risks	1,937 50
Cash deposit with Treasurer of Massachusetts	445 35
Total ledger assets	$776,057 23

Amount brought forward		$776,057 23

Non-Ledger Assets.

Interest due and accrued on bonds		5,920 00
Gross assets		$781,977 23

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$43,593 56	
Book value of ledger assets over market value	21,241 97	
Total		$64,835 53
Total admitted assets		$717,141 70

LIABILITIES.

Losses in process of adjustment, or in suspense	$153,544 79	
Losses resisted	19,312 21	
Total claims for losses	$172,857 00	
Deduct reinsurance	34,183 66	
Net amount of unpaid losses		$138,673 34
Unearned premiums pro rata on fire risks running more than one year	$785 76	
Unearned premiums at 50 per cent on inland navigation risks	157,529,59	
Unearned premiums on marine risks	21,372 14	
Total unearned premiums as computed above		179,687 49
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		500 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		20,000 00
Total liabilities, except capital stock		$338,860 83
Cash capital deposit	$200,000 00	
Surplus over all liabilities	178,280 87	
Surplus to policyholders		$378,280 87
Total		$717,141 70

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$30,000 00

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Marine and inland.
Gross risks written	$20,197,885 00
Less	350,619 00
Net risks written	19,847,266 00
Gross premiums received	80,192 47
Less	9,800 81
Net premiums received	70,391 66
Net losses paid	65,340 71
Net losses incurred	59,409 98
Home office statement shows—	
Capital stock (paid up)	$817,500 00
Assets	4,806,570 80
Liabilities	1,370,072 18

UNITED STATES BRANCH OF THE YANG-TSZE INSURANCE ASSOCIATION, LIMITED.

Shanghai, China.

(Incorporated, 1889. Commenced business in California January 1, 1908.)

Agents United States branch: Wilcox, Peck & Hughes.

Agent for service in California: Balfour, Guthrie & Co., San Francisco.

CAPITAL.

Statutory deposit	$200,000 00	
Amount of ledger assets December 31st of previous year		$545,019 92
Amount of ledger assets December 31st of previous year, Seattle agency		27,440 75
Extended at		$572,460 67

INCOME.

	Marine and inland.	
Gross premiums	$397,745 66	
Deduct gross amount paid for reinsurance, marine and inland, $170,374.37; return premiums, marine and inland, $26,307.21	196,681 58	
Total premiums (other than perpetuals)		$201,064 08
Interest on bonds and dividends on stocks	$10,473 61	
Interest from other sources	4,337 51	
Total interest		14,811 12
Proportion of expenses from other underwriters		1,778 40
Profit and loss account		16
Amount advanced by San Francisco agents		9,013 76
Remittances from home office		26,906 68
Agents' balances previously charged off		126 32
Increase in book value of ledger assets		229 36
Total income		$253,929 88
Total		$826,390 55

DISBURSEMENTS.

	Marine and inland.	
Gross amount paid for losses	$477,458 87	
Deduct amount received for salvage, marine and inland, $17,764.19; reinsurance, marine and inland, $190,991.54	208,755 73	
Net amount paid for losses		$268,703 14
Expenses of adjustment, settlement of losses		17 95
Commissions or brokerage		43,333 24
Salaries, fees and other charges of officers, directors, trustees, agents and employees		12,011 78
Advertising, printing and stationery		1,373 60
Postage, telegrams, telephone and express		344 84
Legal expenses		89 64
Furniture and fixtures		82 73
Underwriters' boards and tariff associations		185 00
Inspections and surveys		1,102 69
State taxes on premiums		10,227 29
Insurance department licenses and fees		194 00
All other licenses, fees and taxes		432 58
Subscriptions		20 75
Miscellaneous expenses		407 25
Remittances to home office		57,885 69
Auditing at Seattle		185 00

Interest on reinsurance premiums to reinsurers		$643 68
Agents' balances charged off		1,128 49
Decrease in book value of ledger assets		168 20
Total disbursements		$398,537 54
Balance		$457,853 01

LEDGER ASSETS.

Book value of bonds and stocks		$282,811 20
Deposits in trust companies and banks not on interest		359 34
Deposits in trust companies and banks on interest		77,874 68
Agents' balances, representing business written subsequent to October 1st, last		52,868 43
Agents' balances, representing business written prior to October 1st, last		2,487 62
Bills receivable, taken for marine and inland risks		530 74
Cash in hands of Liverpool correspondents		448 12
Balance due from former agents at Seattle		10,472 43
Return premium due from reinsurers		45
Total ledger assets		$427,853 01

Non-Ledger Assets.

Interest due and accrued on bonds	$2,602 08	
Interest due and accrued on other assets	758 64	
Total		3,360 72
Other non-ledger assets: Amounts due from other companies		1.243 45
Gross assets		$432,457 18

Deduct Assets Not Admitted.

Agents' balances, representing business written prior to October 1st, last	$2,487 62	
Book value of ledger assets over market value: Bonds	1,661 20	
Balance due from former agents at Seattle	10,472 43	
Return premium due from reinsurers	45	
Total		14,621 70
Total admitted assets		$417,835 48

LIABILITIES.

Losses adjusted and unpaid, due and not due	$32,577 85	
Losses in process of adjustment, or in suspense	72,356 99	
Losses resisted	850 00	
Total claims for losses	$105,784 84	
Deduct reinsurance	17,117 35	
Net amount of unpaid losses		$88,667 49
Unearned premiums at 50 per cent on inland navigation risks	57,430 01	
Unearned premiums at 100 per cent on marine risks	7,154 66	
Total unearned premiums as computed above		64,584 67
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		301 77
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		5,450 00
Commissions, brokerage and other charges due or to become due to agents and brokers		18,083 78
Return premiums, $1,132.81; reinsurance premiums, $15,007		16,139 81
Amount due underwriters' accounts, salvage		2,072 05
Total liabilities, except capital stock		$195,299 57

Cash capital deposit	$200,000 00	
Surplus over all liabilities	22,535 91	
Surplus to policyholders		$222,535 91
Total		$417,835 48

RISKS AND PREMIUMS.

	Marine and inland risks.	Premiums.
In force December 31, 1910	$6,387,663	$279,570 62
Written during the year	69,673,614	397,745 66
Totals	$76,061,277	$677,316 28
Expired and terminated	72,534,844	547,605 02
In force at end of the year	$3,526,433	$129,711 26
Deduct amount reinsured	334,395	7,696 56
Net amount in force	$3,192,038	$122,014 70

MISCELLANEOUS.

Largest amount written on any one risk not deducting reinsurance	$160,000 00
Losses incurred during the year	204,179 17

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Marine and inland.
Gross risks written	$8,201,188 00
Less	2,205,549 00
Net risks written	5,955,639 00
Gross premiums received	78,384 73
Less	16,984 18
Net premiums received	61,400 55
Net losses paid	46,533 30
Net losses incurred	52,000 00
Home office statement shows—	
Capital (paid up)	$315,360 00
Assets	1,539,147 48
Liabilities	260,474 68

COUNTY FIRE MUTUAL
INSURANCE COMPANIES.

COUNTY FIRE MUTUAL INSURANCE COMPANIES.

BUTTE COUNTY FARMERS' MUTUAL FIRE INSURANCE COMPANY.

Chico, Butte County, California.

President, G. B. Guild, Chico. Secretary, G. M. Gray, Chico.

(Date of organization, April 22, 1911. Date of last annual meeting, January 8, 1912.)

Amount of ledger assets December 31, 1910		$150 00

INCOME.

Amount of cash received with applications for insurance during the year	$404 00	
Amount of cash received from assessments levied	2,042 86	
Amount of cash received from all other sources	1 00	
Total income		2,447 86
Sum of both amounts		$2,597 86

EXPENDITURES.

Amount paid for losses during the year	$2,026 00	
Amount paid agents during the year	71 00	
Amount paid secretary during the year	40 00	
All other expenditures	297 01	
Total expenditures		$2,434 01
Balance		$163 85

ASSETS.

Amount of cash on hand	$1,385 00	
Safe	50 00	
Policies and stationery	100 00	
Total assets		$1,535 00

LIABILITIES.

To secretary	$31 00	
To treasurer, money advanced	23 00	
Total liabilities		$54 00

RISKS.

Amount of property at risk December 31st of the previous year	$24,400 00
Amount of risks canceled, withdrawn or terminated during the year	130,650 00
Amount of risks added during the year	106,250 00
Net amount of risks in force December 31, 1911	2,500 00

FARMERS' MUTUAL FIRE INSURANCE COMPANY OF YOLO COUNTY.

Woodland, Yolo County, California.

President, E. S. Farnham, Woodland. Secretary, J. D. Musgrove, Woodland.

Date of organization, June 8, 1907. Date of last annual meeting, January 6, 1912.

Amount of ledger assets December 31, 1910		$5,559 47

INCOME.

Amount of cash received with applications for insurance during the year	$2,888 38	
Amount of cash received from all other sources	239 70	
Total income		3,128 08
Sum of both amounts		$8,687 55

EXPENDITURES.

Amount paid for losses during the year	$2 30	
Amount paid agents during the year	9 15	
Amount paid secretary during the year	1,050 00	
Return premiums	53 34	
All other expenditures	455 25	
Total expenditures		1,570 04
Balance		$7,117 51

ASSETS.

Amount of cash on hand	$7,117 51	
Outstanding premiums for year of 1911	375 94	
Total assets		$7,493 45

LIABILITIES.

Unpaid accounts totaling (since paid)	$61 15	
Outstanding warrant No. 17	1 20	
Total liabilities		$62 35

RISKS.

Amount of property at risk December 31st of the previous year	$772,234 00
Amount of risks canceled, withdrawn or terminated during the year	9,175 00
Amount of risks added during the year	188,647 88
Net amount of risks in force December 31, 1911	946,704 88
Largest amount of insurance carried on any one risk	4,500 00

FARMERS' MUTUAL PROTECTIVE FIRE INSURANCE COMPANY, SAN JOAQUIN COUNTY, CALIFORNIA.

Stockton, San Joaquin County.

President, B. A. Goodwin, Ripon. Secretary, C. C. House, Stockton.

Date of organization, April 20, 1907. Date of last annual meeting, January 9, 1911.

Amount of ledger assets December 31, 1910		$1,096 94

INCOME.

Amount of cash received with applications for insurance during the year	$3,011 39	
Amount of cash received from all other sources	11 00	
Total income		3,022 39
Sum of both amounts		$4,119 33

Amount brought forward		$4,119 33

EXPENDITURES.

Amount paid for losses during the year	$1,362 00	
Amount paid agents during the year	1,020 00	
Amount paid secretary during the year	780 00	
All other expenditures	845 56	
Total expenditures		4,007 56
Balance		$111 77

ASSETS.

Amount of cash on hand	$111 77	
Furniture and fixtures	280 00	
Total assets		$391 77

LIABILITIES.

[None.]

RISKS.

Amount of property at risk December 31st of the previous year	$688,346 00
Amount of risks canceled, withdrawn or terminated during the year	294,829 00
Amount of risks added during the year	668,374 00
Net amount of risks in force December 31, 1911	1,061,891 00
Largest amount of insurance carried on any one risk	4,500 00

FARMERS' MUTUAL FIRE INSURANCE COMPANY OF STANISLAUS COUNTY.

Turlock, Stanislaus County, California.

President, M. BOTHUN, Turlock. Secretary, H. R. LARSON, Turlock.

Date of organization, April 14, 1906. Date of last annual meeting, January 17, 1910.

Amount of ledger assets December 31, 1910		$529 54

INCOME.

Amount of cash received with applications for insurance during the year	$1,071 95	
Amount of cash received from all other sources	20 00	
Total income		1,091 95
Sum of both amounts		$1,621 49

EXPENDITURES.

Amount paid directors during the year	$12 00	
Amount paid agents during the year	276 00	
Amount paid secretary during the year	100 00	
All other expenditures	186 52	
Total expenditures		574 52
Balance		$1,046 97

ASSETS.

Amount of cash on hand	$1,046 97

LIABILITIES.

[None.]

RISKS.

Amount of property at risk December 31st of the previous year	$554,491 00
Amount of risks canceled or terminated during the year	48,008 00
Amount of risks added during the year	250,122 00
Net amount of risks in force December 31, 1911	804,613 00

HILMAR MUTUAL FIRE INSURANCE COMPANY.

Hilmar Colony, Merced County, California.

President, G. A. Moreen, Hilmar. Secretary, A. A. Anderson, Hilmar.

Date of organization, March 16, 1906. Date of last annual meeting, January 14, 1911.

Amount of ledger assets December 31, 1910		$51 19

INCOME.

Amount of cash received with applications for insurance during the year	$592 80	
Amount of cash received from assessments levied	1,287 47	
Amount of cash received from all other sources	28 05	
Total income		1,908 32
Sum of both amounts		$1,959 51

EXPENDITURES.

Amount paid for losses during the year	$958 00	
Amount paid directors during the year	51 00	
Amount paid agents during the year	194 25	
Amount paid secretary during the year	75 00	
Return premiums	3 60	
All other expenditures	95 71	
Total expenditures		1,377 56
Balance		$581 95

ASSETS.

Amount of cash on hand	$581 95	
Iron safe	85 00	
Books, stationery, etc.	25 00	
Total assets		$691 95

LIABILITIES.

[None.]

RISKS.

Amount of property at risk December 31st of the previous year	$254,609 00
Amount of risks canceled, withdrawn or terminated during the year	71,801 00
Amount of risks added during the year	156,051 00
Net amount of risks in force December 31, 1911	338,859 00
Largest amount of insurance carried on any one risk	4,500 00

HUMBOLDT COUNTY FIRE INSURANCE ASSOCIATION.

Ferndale, Humboldt County, California.

President, E. C. Damon, Ferndale. Secretary, A. W. Blackburn, Ferndale.

Date of organization (incorporated), September 16, 1898. Date of last annual meeting, January 9, 1911.

Amount of ledger assets December 31, 1910		$2,193 70

INCOME.

Amount of cash received with applications for insurance during the year	$1,796 28	
Amount of cash received from all other sources	36 00	
Total income		1,832 28
Sum of both amounts		$4,025 98

Amount brought forward		$4,025 98

EXPENDITURES.

Amount paid for losses during the year	$709 25	
Amount paid directors during the year	111 00	
Amount paid agents during the year	238 98	
Amount paid secretary during the year	107 90	
All other expenditures	60 79	
Total expenditures		1,227 92
Balance		$2,798 06

ASSETS.

Amount of cash on hand	$1,498 06	
Loans drawing interest	1,300 00	
Total assets		$2,798 06

LIABILITIES.

[None.]

RISKS.

Amount of property at risk December 31st of the previous year	$798,761 00
Amount of risks canceled, withdrawn or terminated during the year	203,423 00
Amount of risks added during the year	263,117 00
Net amount of risks in force December 31, 1911	858,455 00
Largest amount of insurance carried on any one risk	4,500 00

LAKE COUNTY FARMERS' MUTUAL FIRE INSURANCE COMPANY.

Lakeport, Lake County, California.

President, L. SAILOR, Lakeport. Secretary, F. R. FARRIER, Lakeport.

Date of organization, September 8, 1906 (date of articles of incorporation). Date of last annual meeting, January 21, 1911.

Amount of ledger assets December 31, 1910		$482 65

INCOME.

Amount of cash received with applications for insurance during the year	$254 18	
Amount of cash received from assessments levied	1,581 27	
Total income		1,835 45
Sum of both amounts		$2,318 10

EXPENDITURES.

Amount paid for losses during the year	$1,815 00	
Amount paid directors during the year	148 00	
Amount paid secretary during the year	52 50	
Return premiums $17.85	17 85	
All other expenditures	77 68	
Total expenditures		2,111 03
Balance		$207 07

ASSETS.

Amount of cash on hand	$207 07

LIABILITIES.

Due directors and viewers	$15 00	
Due secretary	20 50	
Total liabilities		$35 50

RISKS.

Amount of property at risk December 31st of the previous year	$131,825 00
Amount of risks canceled, withdrawn or terminated during the year	21,797 00
Amount of risks added during the year	49,477 00
Net amount of risks in force December 31, 1911	159,505 00
Largest amount of insurance carried on any one risk	3,350 00

LOS ANGELES COUNTY MUTUAL FIRE ASSOCIATION.

Los Angeles, Los Angeles County, California.

President, A. T. CURRIER, Spadra. Secretary, G. F. CROMER, Los Angeles.

Date of organization, September 19, 1899. Date of last annual meeting, January 8, 1912.

Amount of ledger assets December 31, 1910		$4,838 33

INCOME.

Amount of cash received with applications for insurance during the year	$14,412 72	
Amount of cash received from all other sources	283 29	
Total income		14,696 01
Sum of both amounts		$19,534 34

EXPENDITURES.

Amount paid for losses during the year	$6,031 55	
Amount paid directors during the year	19 95	
Amount paid agents during the year	736 25	
Amount paid secretary and clerk during the year	2,500 00	
Return premiums	850 38	
All other expenditures	1,055 21	
Total expenditures		11,193 34
Balance		$8,341 00

ASSETS.

Amount of cash on hand	$8,341 00	
Uncollected premiums	229 20	
Total assets		$8,570 20

LIABILITIES.

Fire fund	$8,570 20

RISKS.

Amount of property at risk December 31st of the previous year	$5,202,207 00
Amount of risks canceled, withdrawn or terminated during the year	900,200 00
Amount of risks added during the year	1,652,925 00
Net amount of risks in force December 31, 1911	5,954,932 00
Largest amount of insurance carried on any one risk	4,500 00

NAPA COUNTY FARMERS' MUTUAL FIRE INSURANCE COMPANY.

Napa, Napa County, California.

President, F. O. JENSEN, Napa. Secretary, L. E. JOHNSON, Napa.

Date of organization, January 5, 1909. Date of last annual meeting, January 9, 1911.

Amount of ledger assets December 31, 1910		$1,167 30

INCOME.

Amount of cash received with applications for insurance during the year	$854 74	
Amount of cash received from all other sources	53 26	
Total income		908 00
Sum of both amounts		$2,075 30

EXPENDITURES.

Amount paid agents during the year	$78 55	
Amount paid secretary during the year	83 00	
Return premiums	17 45	
All other expenditures	31 64	
Total expenditures		210 64
Balance		$1,864 66

ASSETS.

Amount of cash on hand	$1,864 66

LIABILITIES.

[None.]

RISKS.

Amount of property at risk December 31st of the previous year	$160,678 00
Amount of risks canceled, withdrawn or terminated during the year	37,295 00
Amount of risks added during the year	140,925 00
Net amount of risks in force December 31, 1911	264,308 00
Largest amount of insurance carried on any one risk	4,500 00

THE ORANGE COUNTY FARMERS' MUTUAL FIRE INSURANCE COMPANY.

Santa Ana, Orange County, California.

President, T. H. SMITH, Santa Ana. Secretary, EDWARD CHAFFEE, Garden Grove.

Date of organization, June 30, 1898. Date of last annual meeting Jan. 9, 1911.

Amount of ledger assets December 31, 1910		$1,271 93

INCOME.

Amount of cash received with applications for insurance during the year	$2,537 35	
Amount of cash received from all other sources	73 30	
Total income		2,610 65
Sum of both amounts		$3,882 58

EXPENDITURES.

Amount paid for losses during the year		$1,084 50
Amount paid directors during the year	$190 00	
Amount paid agents during the year	905 60	
Amount paid secretary during the year	779 30	
Return premiums	5 00	
All other expenditures	332 88	
Total expenditures		3,298 18
Balance		$584 40

ASSETS.

Amount of cash on hand	$584 40	
Office and office furniture	350 00	
Total assets		$934 40

LIABILITIES.

[None.]

RISKS.

Amount of property at risk December 31st of the previous year	$3,123,895 00
Amount of risks canceled, withdrawn or terminated during the year	470,075 99
Amount of risks added during the year	925,225 00
Net amount of risks in force December 31, 1911	3,579,045 00
Largest amount of insurance carried on any one risk	4,500 00

PATRONS' MUTUAL FIRE ASSOCIATION OF TULARE COUNTY.

Tulare, Tulare County, California.

President, J. W. McPherson, Orosi. Secretary, Chas. A. Henry, Tulare.

Date of organization, May 25, 1907. Date of last annual meeting, Jan. 9, 1911.

Amount of ledger assets December 31, 1910		$89 06

INCOME.

Amount of cash received with applications for insurance during the year	$514 13	
Amount of cash received from all other sources (borrowed on our note)	300 00	
Total income		814 13
Sum of both amounts		$903 19

EXPENDITURES.

Amount paid for losses during the year	$120 00	
Amount paid directors during the year	45 50	
Amount paid agents during the year	216 00	
Amount paid secretary during the year	360 00	
Return premiums	12 50	
All other expenditures	84 04	
Total expenditures		838 04
Balance		$65 15

ASSETS.

Amount of cash on hand	$65 15	
Safe, books, stationery, etc.	250 00	
Total assets		$315 15

LIABILITIES.

Bills payable, money borrowed	$300 00

RISKS.

Amount of property at risk December 31st of the previous year	$414,156 00
Amount of risks canceled, withdrawn or terminated during the year	46,640 00
Amount of risks added during the year	73,941 00
Net amount of risks in force December 31, 1911	441,457 00
Largest amount of insurance carried on any one risk	3,500 00

SAN BERNARDINO COUNTY MUTUAL FIRE INSURANCE COMPANY.

Ontario, San Bernardino County, California.

President, P. E. WALLINE, Upland. Secretary, JOHN N. HUEHN, Upland.

Date of organization, August 4, 1899. Date of last annual meeting, Jan. 9, 1911.

Amount of ledger assets December 31, 1910		$348 27
(The cash on hand at this date is included in the income and expenditures for the year.)		

INCOME.

Amount of cash received with applications for insurance during the year	$3,054 44	
Amount of cash received from assessments levied	3,016 90	
Amount of cash received from all other sources	399 52	
Total income		6,470 86
Sum of both amounts		$6,819 13

EXPENDITURES.

Amount paid for losses during the year	$3,608 14	
Amount paid directors during the year	69 20	
Amount paid agents during the year	1,398 20	
Amount paid secretary during the year	610 00	
Return premiums	61 85	
All other expenditures	565 77	
Total expenditures		6,313 16
Balance		$157 70

ASSETS.

Amount of cash on hand	$157 70	
Books and blanks	100 00	
Safe and furniture	150 00	
Total assets		$407 70

LIABILITIES.

Amount of losses reported and unpaid	$250 00	
Salary due secretary	100 00	
Directors and president	148 25	
Office rent	60 00	
Total liabilities		$558 25

RISKS.

Amount of property at risk December 31st of the previous year	$28,694 51
Amount of risks canceled, withdrawn or terminated during the year	3,526 60
Amount of risks added during the year	10,359 15
Net amount of risks in force December 31, 1911	35,527 06
Largest amount of insurance carried on any one risk	4,500 00

SACRAMENTO COUNTY PATRONS AND FARMERS' MUTUAL FIRE INSURANCE COMPANY.

Sacramento, Sacramento County, California.

President, Geo. W. Hack. Secretary, Joseph Holmes, Lower Stockton Road.
Date of organization, March 24, 1902. Date of last annual meeting, January 8, 1912.

Amount of ledger assets December 31, 1910		$2,229 20
INCOME.		
Amount of cash received with applications for insurance during the year	$1,599 30	
Amount of cash received from all other sources	102 09	
Total income		1,701 39
Sum of both amounts		$3,930 59
EXPENDITURES.		
Amount paid for losses during the year	$260 00	
Amount paid directors during the year	14 00	
Amount paid agents during the year	332 00	
Amount paid secretary during the year	332 00	
Return premiums	53 81	
All other expenditures	85 49	
Total expenditures		1,077 30
Balance		$2,853 29
ASSETS.		
Amount of cash on hand		$2,853 29
LIABILITIES.		
[None.]		
RISKS.		
Amount of property at risk December 31st of the previous year		$812,918 00
Amount of risks canceled, withdrawn or terminated during the year		169,447 00
Amount of risks added during the year		259,202 00
Net amount of risks in force December 31, 1911		902,673 00
Largest amount of insurance carried on any one risk		4,500 00

SANTA BARBARA COUNTY FARMERS' MUTUAL FIRE ASSOCIATION.

Santa Barbara, Santa Barbara County, California.

President, Solon Smith, Carpinteria. Sec'y, Frank E. Kellogg, Santa Barbara.
Date of organization, April 12, 1902. Date of last annual meeting, January 7, 1911.

Amount of ledger assets December 31, 1910		$270 50
INCOME.		
Amount of cash received with applications for insurance during the year		403 62
Sum of both amounts		$674 12
Amount paid secretary during the year	$105 00	
Amount paid secretary during the year	$105 00	
Return premiums	8 61	
All other expenditures	39 17	
Total expenditures		152 78
Balance		$521 34

ASSETS.

Amount of cash on hand	$521 34

LIABILITIES.

Amount of losses reported and unpaid	$2,000 00

RISKS.

Amount of property at risk December 31st of the previous year	$274,067 00
Amount of risks canceled, withdrawn or terminated during the year	26,868 00
Amount of risks added during the year	43,598 00
Net amount of risks in force December 31, 1911	290,797 00
Largest amount of insurance carried on any one risk	3,000 00

SANTA CLARA COUNTY FIRE INSURANCE COMPANY.

San Jose, Santa Clara County, California.

President, E. T. Pettit, Cupertino. Secretary, Ella A. Taylor, San Jose.

Date of organization, June 27, 1900. Date of last annual meeting, January 8, 1912.

Amount of ledger assets December 31, 1910		$4,442 17

INCOME.

Amount of cash received with applications for insurance during the year	$3,271 99	
Amount of cash received from assessments levied	871 90	
Amount of cash received from all other sources	117 29	
Total income		4,261 18
Sum of both amounts		$8,703 35

EXPENDITURES.

Amount paid for losses and adjusting same during the year	$561 75	
Amount paid directors during the year	76 55	
Amount paid agents during the year	163 00	
Amount paid secretary during the year	660 00	
Return premiums	66 60	
All other expenditures	324 99	
Total expenditures		1,852 89
Balance		$6,850 46

ASSETS.

Amount of cash on hand	$6,850 46

LIABILITIES.

[None.]

RISKS.

Amount of property at risk December 31st of the previous year	$1,416,816 00
Amount of risks canceled, withdrawn or terminated during the year	87,928 00
Amount of risks added during the year	256,871 00
Net amount of risks in force December 31, 1911	1,585,759 00
Largest amount of insurance carried on any one risk	4,500 00

THE SCANDINAVIAN MUTUAL PROTECTIVE FIRE INSURANCE ASSOCIATION OF FRESNO COUNTY.

Kingsburg, Fresno County, California.

President, A. SORENSEN, Fresno. Secretary, NICHOLAS G. NELSON, Fresno.
Date of organization, July 27, 1899. Date of last annual meeting, January 8, 1912.

Amount of ledger assets December 31, 1910		$3,125 12

INCOME.

Amount of cash received with applications for insurance during the year	$5,980 63	
Amount of cash received from assessments levied	552 59	
Amount of cash received from all other sources	53 58	
Total income		6,586 80
Sum of both amounts		$9,711 92

EXPENDITURES.

Amount paid for losses during the year	$3,627 60	
Amount paid directors during the year	131 00	
Amount paid agents during the year	1,797 70	
Amount paid secretary during the year	1,200 00	
Return premiums	5 02	
All other expenditures	1,230 51	
Total expenditures		7,991 83
Balance		$1,720 09

ASSETS.

Amount of cash on hand	$1,720 09	
Adding machine	383 00	
Typewriter	105 00	
Iron safes	250 00	
Secretary's desks	42 00	
Total assets		$2,500 09

LIABILITIES.

[None.]

RISKS.

Amount of property at risk December 31st of the previous year	$3,310,714 00
Amount of risks canceled, withdrawn or terminated during the year	408,008 00
Amount of risks added during the year	1,927,452 00
Net amount of risks in force December 31, 1911	3,927,452 00
Largest amount of insurance carried on any one risk	4,500 00

SONOMA COUNTY FARMERS' MUTUAL FIRE INSURANCE COMPANY.

Santa Rosa, Sonoma County, California.

President, G. W. SMITH, Santa Rosa. Sec'y, JOHN M. GIVEN, Forestville.
Date of organization, Jan. 26, 1898. Date of last annual meeting, Jan. 8, 1912.

Amount of ledger assets December 31, 1910		$11,863 34

INCOME.

Amount of cash received with applications for insurance during the year	$7,315 26	
Amount of cash received from all other sources	460 00	
Total income		7,775 26
Sum of both amounts		$19,638 60

Amount brought forward		$19,638 60

EXPENDITURES.

Amount paid for losses during the year	$4,276 85	
Amount paid directors during the year	147 50	
Amount paid agents during the year	1,050 50	
Amount paid secretary during the year	703 00	
Return premiums	76 80	
All other expenditures	415 35	
Total expenditures		6,670 00
Balance		$12,968 60

ASSETS.

Amount of cash on hand	$12,968 60	
Office furniture	100 00	
Total		$13,068 60

LIABILITIES.

[None.]

RISKS.

Amount of property at risk December 31st of the previous year	$2,351,520 00
Amount of risks canceled, withdrawn or terminated during the year	738,954 00
Amount of risks added during the year	1,029,223 00
Net amount of risks in force December 31, 1911	2,641,789 00
Largest amount of insurance carried on any one risk	4,500 00

VENTURA COUNTY MUTUAL FIRE INSURANCE COMPANY.

Ventura, Ventura County, California.

President, NATHAN W. BLANCHARD, Santa Paula. Sec'y, J. F. MCINTYRE, Ventura.

Date of organization, April 4, 1898. Date of last annual meeting, January 9, 1911.

Amount of ledger assets December 31, 1910		$11,279 51

INCOME.

Amount of cash received with applications for insurance during the year	$6,787 05	
Amount of cash received from all other sources	261 07	
		7,048 12
Sum of both amounts		$18,327 63

EXPENDITURES.

Amount paid for losses during the year	$5,411 75	
Amount paid agents during the year	965 28	
Amount paid secretary during the year	600 00	
Return premiums	300 93	
All other expenditures	545 67	
		7,823 63
Balance		$10,504 00

ASSETS.

Amount of cash on hand	$10,504 00	
Office safe, furniture and supplies	425 00	
Premiums due and unpaid	608 02	
Total assets		$11,537 02

LIABILITIES.

[None.]

RISKS.

Amount of property at risk December 31st of the previous year	$1,316,531 00
Amount of risks canceled, withdrawn or terminated during the year	481,967 00
Amount of risks added during the year	641,670 00
Net amount of risks in force December 31, 1911	1,476,234 00
Largest amount of insurance carried on any one risk	4,500 00

LIFE INSURANCE COMPANIES (ORDINARY).

LIFE INSURANCE COMPANIES (ORDINARY).

ÆTNA LIFE INSURANCE COMPANY.

Hartford, Conn.

(Incorporated June, 1820.)

Morgan G. Bulkeley, President. Charles E. Gilbert, Secretary.

Agent for service in California: E. H. L. Gregory, San Francisco.

CAPITAL.

Capital stock paid up in cash	$2,000,000 00	
Amount of ledger assets December 31st of previous year		$90,111,459 28

INCOME.

First year's premiums on original policies, less reinsurance	$1,067,134 42	
Surrender values to pay first year's premiums	46,028 71	
Dividends applied to purchase paid-up additions and annuities	5,514 40	
Surrender values applied to purchase paid-up insurance and annuities	108,286 73	
Consideration for original annuities involving life contingencies	90,966 30	
Consideration for supplementary contracts involving life contingencies	50,000 00	
Total new premiums		$1,367,930 56
Renewal premiums less insurance	$9,033,839 98	
Dividends applied to pay renewal premiums	422,585 24	
Surrender values applied to pay renewal premiums	462 93	
Renewal premiums for deferred annuities	1,822 64	
Total renewal premiums		$9,458,710 79
Total premium income		$10,826,641 35
Consideration for supplementary contracts not involving life contingencies		90,704 00
Dividends left with the company to accumulate at interest		134,552 82
Interest on mortgage loans	$2,322,793 60	
Interest on collateral loans	55,330 97	
Interest on bonds and dividends on stocks	1,341,352 67	
Interest on premium notes, policy loans or liens	549,623 64	
Interest on deposits	61,172 66	
Discount on claims paid in advance	2,928 31	
Rents, including $32,500 for company's occupancy of its own buildings	44,317 29	
Total interest and rents		4,377,519 14
Investment expense account	$18,992 34	
Conscience money	10 69	
		19,003 03
Profit on sale or maturity of ledger assets		6,718 75
Total income		$15,455,139 09
Total		$105,566,598 37

DISBURSEMENTS.

Death claims and additions	$3,815,385 93	
Matured endowments and additions	2,522,765 00	
Total death claims and endowments		$6,338,150 93
Annuities involving life contingencies		40,007 96
Premium notes and liens voided by lapse, less $133.35		1,218 56
Surrender values paid in cash, or applied in liquidation of loans or notes		1,823,224 02
Surrender values applied to pay new and renewal premiums		46,491 64
Surrender values applied to purchase paid-up insurance and annuities		108,286 73
Dividends paid policyholders in cash, or applied in liquidation of loans or notes		660,036 12
Dividends applied to pay renewal premiums		422,585 24
Dividends applied to purchase paid-up additions and annuities		5,514 40
Left with the company to accumulate at interest		134,552 82
Total paid policyholders		$9,580,068 42
Expenses of investigation and settlement of policy claims, including legal expenses		6,513 83
Supplementary contracts not involving life contingencies		44,905 05
Dividends with interest, held on deposit surrendered during the year		40,473 25
Interest or dividends to stockholders		200,000 00
Commissions to agents		908,689 41
Commuted renewal commissions		12,094 02
Agency supervision and traveling expenses of supervisors		60,558 97
Branch office expenses		113,283 35
Medical examiners' fees and inspection of risks		78,448 90
Salaries and all other compensation of officers and home employees		363,403 98
Rent, including company's occupancy of its own buildings		78,700 83
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange		121,118 09
Legal expenses		3,532 38
Furniture, fixtures and safes		12,602 35
Repairs and expenses (other than taxes) on real estate		33,724 44
Taxes on real estate		12,919 11
State taxes on premiums		127,136 08
Insurance department licenses and fees		9,698 90
All other licenses, fees and taxes		320,629 75
Other disbursements: Supplies, $1,041.80; incidentals, $2,213.45; expense on real estate during foreclosure, $543.65; association of life insurance presidents' tax, $4,778; profit or loss, $19.20		8,596 10
Agents' balances charged off		146 38
Loss on sale or maturity of ledger assets		22,954 81
Decrease in book value of ledger assets		32,017 31
Total disbursements		$12,192,215 71
Balance		$93,374,382 66

LEDGER ASSETS.

Book value of real estate	$577,487 41
Mortgage loans on real estate	48,493,359 15
Loans secured by collaterals (Schedule C)	882,864 97
Loans on company's policies assigned as collateral	8,665,831 60
Premium notes on policies in force	147,045 00
Book value of bonds and stocks (Schedule D)	30,865,830 92
Cash in office	762 05
Deposits in trust companies and banks not on interest	1,379,129 93
Deposits in trust companies and banks on interest	2,322,029 23
Bills receivable	21,549 37
Debit, $26,117.52; credit, $7,624.49; net	18,493 03
Total ledger assets	$93,374,382 66

Amount brought forward			$93,374,382 66

Non-Ledger Assets.

Interest due and accrued on mortgages		$1,271,338 11	
Interest due and accrued on bonds		366,320 75	
Interest due and accrued on collateral loans		18,102 41	
Interest due and accrued on premium notes, loans or liens		150,492 09	
Interest due and accrued on other assets		1,797 25	
Rents due and accrued on company's property		250 00	
			1,808,300 61
Market value of bonds and stocks over book value			2,658,605 11
	New business.	Renewals.	
Net uncollected and deferred premiums	$45,452 29	$949,698 75	995,151 04
Gross assets			$98,836,439 42

Deduct Assets Not Admitted.

Agents' debit balances	$26,117 52	
Bills receivable	21,549 37	
Premium notes or loans on policies and net premiums in excess of value of their policies	498 40	
Book value of ledger assets over market value		48,165 29
Total life business		$98,788,274 13
Special deposits to secure liabilities in Virginia, $363,453.60.		
Accident, health and liability business		5,967,261 09
Admitted assets		$104,755,535 22

LIABILITIES.

Net present value of outstanding policies: Actuaries, 4 per cent; and American, 3½ per cent; American, 3 per cent; computed by the company's insurance department	$84,512,066 00	
Same for reversionary additions	11,154 00	
Also supplementary contracts involving life contingencies	108,876 00	
Same for annuities	440,423 00	
Total	$85,072,519 00	
Deduct net value of risks reinsured	28,885 00	
Total	$85,043,634 00	
Reserve to provide for disability benefits contained in life policies	75,837 00	
Net reserve		$85,119,471 00
Present value of supplementary contracts not involving life contingencies		350,820 00
Surrender values claimable on policies canceled		9,076 80
Death losses in process of adjustment	$151,622 00	
Death losses incurred for which no proofs have been received	149,586 00	
Matured endowments due and unpaid	53,139 00	
Death losses and other policy claims resisted	29,310 00	
Annuity claims, involving life contingencies, due and unpaid	64 41	
Total policy claims		383,721 41
Dividends left with the company to accumulate at interest		641,650 09
Premiums paid in advance, including surrender values so applied		29,854 33
Unearned interest and rent paid in advance		229,316 98
Commissions due agents on premium notes, when paid, $984.16; other contingent commissions, $1,410.26		2,394 42
Commissions to agents due or accrued		2,312 56
Cost of collection on uncollected and deferred premiums in excess of loading		12,243 75

Salaries, rents, office expenses, bills and accounts due or accrued		$3,410 75
Medical examiners' and legal fees due or accrued		9,509 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		464,110 24
Dividends or other profits due policyholders		76,957 96
Dividends declared on or apportioned to annual dividend policies payable to policyholders during 1912		727,532 05
Dividends declared on or apportioned to deferred dividend policies payable to policyholders during 1912		618,238 00
Amounts set apart, apportioned, provisionally ascertained, calculated, declared or held awaiting apportionment upon deferred dividend policies		1,197,378 26
Special reserve held under renewable term contracts		724,744 00
Total liabilities, life business		$90,602,741 60
Surplus on life business, including capital stock	$8,185,532 53	
Total liabilities, accident, health and liability business		4,888,906 52
Paid-up capital, $2,000,000; unassigned funds (surplus), $7,263,887.19: total surplus as regards policyholders		9,263,887 10
Total liabilities, life, accident, health and other business		$104,755,535 22

PREMIUM NOTE ACCOUNT.

On hand December 31, 1910	$164,735 36	
Received during the year on new policies	6,495 91	
Received during the year on old policies	3,918 02	
Restored by revival of policies	133 35	
		$175,282 64
Deductions during the year as follows:		
Used in payment of losses and claims	$11,846 17	
Used in purchase of surrendered policies	2,256 97	
Voided by lapse	1,351 91	
Used in payment of dividends to policyholders	4,893 58	
Redemed by maker in cash	7,889 01	
Total reduction of premium note account		28,237 64
Balance note assets at end of the year		$147,045 00

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	170,208	$307,102,649 03
Policies issued, revived, changed and increased during the year	21,281	36,024,544 88
Totals	191,489	$343,127,193 91

Deduct policies which have ceased to be in force during the year:

	Number.	Amount.
By death	2,163	$3,870,630 15
By maturity	1,721	2,511,703 00
By expiry	7,902	2,411,020 00
By surrender	3,491	6,554,090 77
By lapse	3,239	8,282,700 00
By decrease	----	892,418 92

	Number.	Amount.
Totals	18,516	24,522,562 84
Total policies in force at end of year 1911	172,973	$318,604,631 07
Reinsured	41	$378,008 00

BUSINESS IN CALIFORNIA.

Ordinary.

Policies in force December 31, 1910	6,196	$12,849,730 37
Policies issued during the year	1,480	3,431,953 87
Totals	7,676	$16,281,684 24
Deduct policies ceased to be in force	882	1,835,980 89
Policies in force December 31, 1911	6,794	$14,445,703 35
Losses and claims unpaid December 31, 1910	3	$8,000 00
Losses and claims incurred during the year	95	189,437 46
Totals	98	$197,437 46
Losses and claims settled during the year	92	194,454 46
Losses and claims unpaid December 31, 1911	6	$2.983 00
Premiums received		$396.090 49

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus.
Loading on actual premiums of the year (averaging 17.22 per cent of the gross premiums)	$1,863,788 32		
Insurance expenses incurred during the year	2,070,748 31		
Loss from loading		------------	$206.959 99
Interest earned during the year	$4,475,234 05		
Investment expenses incurred during the year	103,081 34		
Net income from investments	4.372.152 71		
Interest required to maintain reserve	2,874,714 88		
Gain from interest		$1,497,437 83	
Expected mortality on net amount at risk	$3.270.545 00		
Actual mortality on net amount at risk	2.246.311 89		
Gain from mortality		1,024,233 11	
Net expected disbursements to annuities	$28.327 00		
Net actual annuity claims incurred	36.825 96		
Loss from annuities		------------	8.498 96
Investment Exhibit.			
Total gain during the year from surrendered and lapsed policies		222.287 17	
Dividends paid stockholders, including tax on market value of stock, $108.041.28		------------	308.041 28
Decrease in surplus on dividend account		------------	2,531.464 04
Increase in special funds, and special reserves during the year		------------	242.636 00
Net to loss account		------------	165 58
Investment Exhibit.			
Total gains from real estate		1,080 00	
Total losses from real estate		------------	14.759 81
Total gains from stocks and bonds		174,007 07	
Total losses from stocks and bonds		------------	38.952 73
Gains from assets not admitted		5,655 04	
Total gains and losses in surplus during the year		$2.924,700 22	$3.351.478 39
Surplus December 31, 1910	$6.612.310 70		
Surplus December 31, 1911	6.185.532 53		
Decrease in surplus (enter in column to balance)		426.778 17	
Totals		$3.351.478 39	$3.351.478 39

ÆTNA LIFE INSURANCE COMPANY.

(Accident and Liability Department).

Hartford, Conn.

(Incorporated June, 1820. Commenced business in California about 1867.)

M. G. Bulkeley, President. J. M. Parker, Jr., and E. C. Higgins, Secretaries.

Agent for service in California: E. H. Lestcock Gregory, San Francisco.

CAPITAL.

Capital stock paid up in cash	$2,000,000 00	
Amount of ledger assets December 31st of previous year		$6,109,090 45

INCOME.

Accident—Gross premiums written and renewed during the year, $2,115,173.35; deduct reinsurance, $50,159.59; return premiums on policies canceled, $56,371.39; premiums on policies not taken, $310,609.12: Total deductions, $417,140.10		$1,698,033 25
Health—Gross premiums written and renewed during the year, $553,363.32; deduct reinsurance, $13,464.35; return premiums on policies canceled, $18,687.59; premiums on policies not taken, $104,663.46: Total deductions, $136,815.40		416,547 92
Liability—Gross premiums written and renewed during the year, $5,169,787.96; deduct reinsurance, $9,676.39; return premiums on policies canceled, $320,987.97; premiums on policies not taken, $655,371.01: Total deductions, $986,035.37		4,183,752 59
Workmen's collective—Gross premiums written and renewed during the year, $63,996.75; deduct return premiums on policies canceled, $4,540.26; premiums on policies not taken, $12,547.57: Total deductions, $17,087.83		46,908 92
Total net premiums		$6,345,242 68
Interest on mortgage loans, $112,017.00; collateral loans, $4.80	$112,021 80	
Bonds and dividends on stocks, $70,878.50; from other sources, $11,414.36	82,292 86	
		194,314 66
Total income		$6,539,557 34
Sum		$12,648,647 79

DISBURSEMENTS.

Accident—Gross amount paid for losses, $801,228.41; deduct reinsurance, $55,357.26	$745,871 15
Health—Gross amount paid for losses, $178,805.90; deduct reinsurance, $2,557.17	176,248 73
Liability—Gross amount paid for losses, $2,138,745.06; deduct reinsurance, $2,500.00	2,136,245 06
Workmen's collective, gross amount paid for losses	17,089 18
Total	$3,075,454 12
Investigation and adjustment of claims	556,356 64
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	1,613,206 10
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees, including traveling expense	244,945 26
Salaries, traveling and all other expenses of agents not paid by commissions	125,637 96
Medical examiners' fees and salaries	13,571 26
Inspections (other than medical and claim)	134,890 85
Rents	72,694 41
Repairs and expenses (other than taxes) on real estate	1,679 63
Taxes on real estate	131 30
State taxes on premiums	91,016 90

Amount brought forward	$5,929,584 43
Insurance department licenses and fees	4,868 67
All other licenses, fees and taxes	3,638 17
Legal expenses	3,238 83
Advertising	73,948 34
Printing and stationery	79,105 59
Postage, telegraph, telephone and express	63,125 68
Furniture and fixtures	29,458 43
Stockholders for interest or dividends	100,000 00
Sundry expense	19,855 66
Investment expense	49 00
Profit and loss (agents' balances, etc., uncollectable)	4,089 35
Interest paid on Ætna gold bond and to agents	85 86
Total disbursements	$6,311,048 01
Balance	$6,337,599 78

LEDGER ASSETS.

Book value of real estate	$9,618 93
Mortgage loans on real estate, first liens	2,257,593 37
Loans secured by pledge of bonds, stocks or other collaterals	80 00
Book value of bonds and stocks (schedule "D")	2,209,852 50
Cash in office	555 54
Deposits in trust companies and banks not on interest	171,697 94
Deposits in trust companies and banks on interest	375,273 51

Gross premiums in course of collection, on policies or renewals:

	Issued on or after Oct. 1, 1911.	Prior to Oct. 1, 1911.	
Accident	$239,774 97	$21,507 57	
Health	67,058 03	2,648 72	
Liability	667,324 56	270,054 97	
Workmen's collective	5,336 80	1,061 61	
Totals	$979,494 36	$295,272 87	1,274,767 23

Bills receivable and suspense accounts	$36,987 62	
Advance traveling expense and salaries	1,173 14	
		38,160 76
Ledger assets as per balance		$6,337,599 78

Non-Ledger Assets.

Interest due and accrued on:		
Mortgages	$73,851 17	
Bonds	14,769 99	
Collateral loans	3 85	
Other assets	2,268 92	
Rents due and accrued	710 00	
		91,603 93
Due from reinsurance companies (premium account)		144 51
Gross assets		$6,429,348 22

Deduct Assets Not Admitted.

Bills receivable and suspense accounts	$36,987 62	
Premiums in course of collection written prior to October 1, 1911	295,272 87	
Advance traveling expenses and salaries	1,173 14	
Book value of ledger assets over market value	128,653 50	
		462,087 13
Total admitted assets, accident, health and liability business		$5,967,261 09
Total admitted assets, life business		98,788,274 13
*Total admitted assets		$104,755,535 22

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*All classes of policies are secured by the entire assets of the company.

LIABILITIES.

Losses and claims:		
Accident—Adjusted, $7,151.05; reported or in process of adjustment, $136,921.66; resisted, $94,779.70; net unpaid claims, except liability claims, $238,852.41; estimated expense of investigation and adjustment of unpaid claims, $7,165.57		$246,017 98
Health—Adjusted, $2,272.00; reported or in process of adjustment, $4,794.20; resisted, $2,450.00; net unpaid claims, except liability claims, $9,516.20; estimated expense of investigation and adjustment of unpaid claims, $285.49		9,801 69
Workmen's collective—Reported or in process of adjustment		5,520 00
Net unpaid claims, except liability claims, including estimated expense of investigation and adjustment of unpaid claims		$261,339 67
Special reserve for unpaid liability losses		1,968,000 00
Total unpaid claims and expenses of settlement		$2,229,339 67
Actual unearned premiums, semi-monthly basis, on risks running one year or less	$2,206,285 83	
Unearned premiums, pro rata on risks running more than one year	78,775 06	
Total unearned premiums		2,285,060 89
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident, $84,095.58; health, $22,256.18; liability, $166,831.14; workmen's collective, $1,067.36		274,250 26
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		8,091 61
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		88,203 73
Interest due or accrued		48 62
Reinsurance		880 63
Advance premiums (100 per cent)		1,031 11
Ætna gold bond not due		2,000 00
Total liabilities, accident, health and liability business		$4,888,906 52
Total liabilities, life business		90,602,741 60
Total amount of all liabilities except capital		$95,491,648 12
Capital actually paid up in cash	$2,000,000 00	
Accident, health and liability business	1,078,354 57	
Surplus over all liabilities, life business	6,185,532 53	
Surplus as regards policyholders		9,263,887 10
Total liabilities		$104,755,535 22

EXHIBIT OF PREMIUMS.

	Accident.	Health.	Liability.
In force December 31, 1910	$1,401,592 97	$346,177 24	$2,663,876 35
Written or renewed during the year	2,115,173 35	553,363 32	5,169,787 96
Totals	$3,516,766 32	$899,540 56	$7,833,664 31
Deduct expirations and cancellations	1,966,062 74	481,635 31	4,919,197 94
Balance	$1,550,703 58	$417,905 25	$2,914,466 37
Deduct reinsured policies	5,858 00	2,010 00	36 38
Net in force December 31, 1911	$1,544,845 58	$415,895 25	$2,914,429 99

	Workmen's Collective.
In force December 31, 1910	$13,392 24
Written or renewed during the year	63,996 75
Total	$77,388 99
Deduct expirations and cancellations	67,980 40
Net in force December 31, 1911	$9,408 59

Total dividends declared from organization: Cash	$868,750 00
Total losses incurred during the year (less reinsurance	$3,481,433 89

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Accident	$80,004 76	$31,677 65
Health	10,682 19	7,854 00
Liability	144,838 42	65,398 61
Workmen's collective	----------	21 00
Totals	$235,525 37	$104,951 26

BANKERS' LIFE INSURANCE COMPANY.

Des Moines, Iowa.

(Incorporated June 30, 1879. Commenced business in California June 10, 1891.)

E. E. CLARK, President. H. S. NOLLEN, Secretary.

Agent for service in California: L. B. COLLINS, San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year		$16,611,134 27

INCOME.

First year's premiums and assessments on original policies, less reinsurance	$732,081 98	
Renewal premiums less insurance, assessment policies only	4,391,756 49	
Total renewal premiums		$4,391,756 49
Total premium income		$5,123,838 47
Interest on mortgage loans	$709,487 27	
Interest on bonds and dividends on stocks	14,531 04	
Interest on premium notes, policy loans or liens	69,136 15	
Interest on deposits	8,217 92	
Interest on other debts due the company, discount on loans purchased in 1911	8,439 31	
Rents	440 00	
Total interest and rents		810,251 69
Gain from notes formerly charged off		3,417 66
Deposits of members and applicants		3,189 70
Guarantee deposits		1,179,962 00
Total income		$7,120,659 52
Total		$23,731,793 79

DISBURSEMENTS.

Death claims and additions	$3,533,876 00	
Guarantee deposits returned to beneficiaries	71,813 00	
Total death claims and endowments		$3,605,689 00
Premium notes and liens voided by lapse, less $34,845.91 restoration		293,865 17
Surrender values paid in cash, or applied in liquidation of loans or notes, refunds		1,780 55
Total paid policyholders		$3,901,334 72
Expense of investigation and settlement of policy claims, including legal expenses		8,039 17
Commissions to agents		665,323 97
Agency supervision and traveling expenses of supervisors		4,107 00
Medical examiners' fees and inspection of risks		146,191 75

Salaries and all other compensation of officers and home employees		$151,599 48
Rent, including company's occupancy of its own buildings		18,972 55
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange		125,953 03
Legal expense		100 00
Furniture, fixtures and safes		11,742 27
Taxes on real estate		676 45
State taxes on premiums		36,445 52
Insurance department licenses and fees		6.714 83
All other licenses, fees and taxes		3,528 73
Expense, loan department		11.732 03
Auditing expenses S. H. Wolfe office		6.395 00
Traveling expenses		4.259 29
Miscellaneous		9.496 07
Total disbursements		$5.112.611 86
Balance		$18,619,181 93

LEDGER ASSETS.

Book value of real estate		$45,000 00
Mortgage loans on real estate		15,631,833 47
Book value of bonds and stocks (Schedule D)		230,911 38
Deposits in trust companies and banks not on interest		262,699 22
Deposits in trust companies and banks on interest		541,626 11
Guarantee notes on members in good standing		1,907,111 75
Total ledger assets		$18,619,181 93

Non-Ledger Assets.

Interest due and accrued on mortgages	$422,052 22	
Interest due and accrued on bonds	3,060 14	
Interest due and accrued on other assets	954 28	
		426,066 64
Net uncollected and deferred premiums, new business		98 72
Gross assets		$19,045,347 29

Deduct Assets Not Admitted.

Guarantee notes on members in good standing		1,907,111 75
Admitted assets		$17,138,235 54

LIABILITIES.

Net present value of outstanding policies: Actuaries, 4 per cent; and American, 3½ per cent; American, 3 per cent; computed by the insurance department		$3,199,748 96
Death losses in process of adjustment	$32,800 00	
Death losses incurred for which no proofs have been received, including $54,000.00 claims reported in 1912 but occurring in 1911	234,000 00	
Death losses and other policy claims resisted	30,000 00	
Total policy claims		296,800 00
Unearned interest and rent paid in advance		20,657 04
Cost of collection on uncollected and deferred premiums in excess of loading		35 97
Salaries, rents, office expenses, bills and accounts due or accrued		12,534 83
Medical examiners' and legal fees due or accrued		2,351 00
Estimated amount hereafter payable for federal, state and other taxes upon the business of the year of this statement		80,000 00
Emergency reserve fund		5,491,481 37
Guarantee fund cash only		6,940,428 25
Mortuary fund		719,242 75
Trust fund and deposits of members		22,740 51
Unassigned fund (surplus)		352,214 86
Total liabilities		$17,138,235 54

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.	Number.	Amount.
Policies in force December 31, 1910			225,574	$451,148,000 00
Policies issued, revived, changed and increased during the year			35,391	70,954,500 00
Totals			260,965	$522,102,500 00
Deduct policies which ceased to be in force during the year:				
By death	1,771	$3,542,000 00		
By surrender	569	1,138,000 00		
By lapse	13,409	26,818,000 00		
Totals			15,749	31,498,000 00
Total policies in force at end of year 1911			245,216	$490,604,500 00

BUSINESS IN CALIFORNIA.

	Number.	Amount.
Policies in force December 31, 1910	10,732	$21,464,000 00
Policies revived during the year	43	86,000 00
Policies issued during the year	1,965	3,934,000 00
Totals	12,740	$25,484,000 00
Deduct policies ceased to be in force	772	1,544,000 00
Policies in force December 31, 1911	11,968	$23,940,000 00
Losses and claims unpaid December 31, 1910	9	$18,000 00
Losses and claims incurred during the year	113	226,000 00
Totals	122	$244,000 00
Losses and claims settled during the year	111	222,000 00
Losses and claims unpaid December 31, 1911	11	$22,000 00
Premiums received		$318 39
Assessments received on assessment certificates		$270,095 37

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus.
Loading on actual premiums of the year (averaging 27.2 per cent of the gross premiums)	$1,396,493 60		
Insurance expenses incurred during the year	1,231,789 66		
Gain from loading		$164,703 94	
Interest earned during the year	$845,150 48		
Investment expenses incurred during the year	25,046 18		
Net income from investments	$820,104 30		
Interest required to maintain reserve and change in assessment reserve	33,223 50		
Gain from interest		786,880 80	
Expected mortality on net amount at risk	$6,336,604 03		
Actual mortality on net amount at risk	3,521,876 00		
Gain from mortality		2,814,728 03	
Applied in reduction of assessments		------------	$2,619,710 94
Increase in special funds, and special reserves during the year		------------	1,780,171 89
Net to gain account		1,637 11	

Investment Exhibit.

Increase from guarantee deposits less charge in notes not admitted		$767,611 29	
Receipts on special deposits of members' personal accounts		3,189 70	
Total gains and losses in surplus during the year		$4,538,750 87	$4,399,882 83
Surplus December 31, 1910	$213,346 82		
Surplus December 31, 1911	352,214 86		
Increase in surplus (enter in column to balance)		------------	138,868 04
Totals		$4,538,750 87	$4,538,750 87

CALIFORNIA NATIONAL LIFE INSURANCE COMPANY.

San Diego, California.

(Incorported December 24, 1910. Commenced business in California February 15, 1911.)

L. A. BLOCHMAN, President. O. K. EVANS, Secretary.

CAPITAL STOCK.

Capital stock paid up in cash	$250,000 00	
Increase of paid-up capital during year		$250,000 00

INCOME.

First year's premiums on original policies, less reinsurance		$31,817 88
Interest on mortgage loans	$1,569 68	
Interest on other debts due the company	2 13	
Total interest		1,571 81
Premium on capital stock		50,976 65
Total income		$84,366 34
Total		$334,366 34

DISBURSEMENTS.

Commissions to agents	$30,008 24
Medical examiners' fees and inspection of risks	1,937 00
Salaries and all other compensation of officers and home employees	7,598 50
Rent, including company's occupancy of its own buildings	937 65
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange	2,373 87
Legal expense	200 00
Furniture, fixtures and safes	988 40
Insurance department licenses and fees	227 25
All other licenses, fees and taxes	76 50
Premium on territorial bond	75 00
Investment expense account	58 30
Petty office expense	195 55
Total disbursements	$44,676 26
Balance	$289,690 08

LEDGER ASSETS.

Mortgage loans on real estate	$250,702 07
Cash in office	1,753 72
Deposits in trust companies and banks not on interest	37,234 29
Total ledger assets	$289,690 08

Non-Ledger Assets.

Interest due and accrued on mortgages	3,234 76
Gross assets	$292,924 84

LIABILITIES.

Net present value of outstanding policies: American, 3½ per cent; computed by the insurance department	$6,909 09	
Deduct net value of risks reinsured	1,986 75	
Net reserve		$4,922 34
Unearned interest and rent paid in advance		31 11
Salaries, rents, office expenses, bills and accounts due or accrued, estimated		250 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		29 79
Reinsurance premiums due other companies		1,930 53
Paid-up capital		250,000 00
Unassigned funds (surplus)		35,761 07
Total liabilities		$292,924 84

EXHIBIT OF POLICIES.

Paid for business only : Ordinary.

	Number.	Amount.
Policies issued, revived, changed and increased during the year	279	$1,010,973 00
Reinsured	57	324,000 00

BUSINESS IN CALIFORNIA.

Ordinary.

Policies issued during the year	260	$966,973 00
Deduct policies ceased to be in force, transferred to New York	1	6,000 00
Policies in force December 31, 1911	259	$960,973 00
Premiums received		$32,083 82

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus.
Loading on actual premiums of the year (averaging 75.9 per cent of the gross premiums)	$24,138 86		
Insurance expenses incurred during the year	46,628 28		
Loss from loading		------------	$22,489 42
Interest earned during the year	$4,775 46		
Investment expenses incurred during the year	258 30		
Net income from investments	$4,517 16		
Interest required to maintain reserve	111 99		
Gain from interest		$4,405 17	
Expected mortality on net amount at risk	$2,819 72		
Gain from mortality		2,819 72	
Premium on capital stock		50,976 65	
Gain unaccounted for		48 95	
Total gains and losses in surplus during the year		$58,250 49	
Surplus December 31, 1911		------------	35,761 07
Totals		$58,250 49	$58,250 49

CALIFORNIA STATE LIFE INSURANCE COMPANY.

Sacramento, California.

(Incorporated Dec. 3, 1910. Commenced business in California Jan. 1, 1912.)

MARSHALL DIGGS, President. J. R. WHISNER, Secretary.

CAPITAL.

Capital stock paid in cash	$500,000 00	
Amount of ledger assets		$805,390 00

INCOME.

Interest on mortgage loans	$856 68	
Interest on deposits	775 05	
Interest on other debts due the company	112 90	
Total interest		$1,744 63
Total		$807,134 63

DISBURSEMENTS.

Salaries and all other compensation of officers and home employees	$2,075 00
Rent, including company's occupancy of its own buildings	45 00
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange	15 00
Furniture, fixtures and safes	180 00
Insurance department licenses and fees	75 00
Petty office expenses	23 00
Traveling expense home office	360 00
Total disbursements	$2,730 00
Balance	$804,361 63

LEDGER ASSETS.

Mortgage loans on real estate		$155,950 00
Deposits in trust companies and banks not on interest		256,455 61
Deposits in trust companies and banks on interest		391,776 02
Furniture and fixtures		180 00
Total ledger assets		$804,361 63

Non-Ledger Assets.

Interest due and accrued on mortgages	$1,398 37	
Interest due and accrued on other assets	1,848 94	
		3,247 31
Gross assets		$807,608 94

Deduct Assets Not Admitted.

Furniture, fixtures and safes	180 00
Admitted assets	$807,428 94

LIABILITIES.

Advances by officers or others on account of expenses of organization or otherwise	$1,010 75
Paid-up capital	500,000 00
Unassigned funds (surplus)	306,418 19
Total liabilities	$807,428 94

COLUMBIAN NATIONAL LIFE INSURANCE COMPANY.

Boston, Massachusetts.

(Incorporated June 5, 1902. Commenced business in California October 10, 1903.)

ARTHUR E. CHILDS, President. WM. H. BROWN, Secretary.

Agent for service in California: HOMER MCELHANY, San Francisco.

CAPITAL.

Capital stock paid up in cash	$1,000,000 00	
Amount of ledger assets December 31st of previous year		$5,656,524 12

INCOME.

First year's premiums on original policies, less reinsurance	$209,781 67	
Surrender values to pay first year's premiums	286 76	
Dividends applied to purchase paid-up additions and annuities	87 02	
Surrender values applied to purchase paid-up insurance and annuities	32,593 70	
Consideration for original annuities involving life contingencies	1,938 45	
Total new premiums		$244,687 60
Renewal premiums less reinsurance	$1,287,528 42	
Dividends applied to pay renewal premiums	13,943 72	
Surrender values applied to pay renewal premiums	2,227 25	
Renewal premiums for deterred annuities	726 70	
Total renewal premiums		1,304,426 09
Total premium income		$1,549,113 69
Ledger assets other than premiums from other companies for assuming their risks		1,047,017 81
Interest on mortgage loans	$88,158 96	
Interest on bonds and dividends on stocks	176,415 23	
Interest on premium notes, policy loans or liens	40,064 00	
Interest on deposits	6,660 95	
Interest on other debts due the company (overdue premium)	228 79	
Total interest		311,527 93
From other sources: American Investment and Securities Company, $124,865.62; accident and health department (per statement), $173,499.17; interest O'Brien mortgages account, $226.38		298,591 17
Profit on sale or maturity of ledger assets		4,198 79
Increase in book value of ledger assets		1,857 14
Total income		$3,212,306 53
Total		$8,868,830 65

DISBURSEMENTS.

Death claims and additions	$280,962 27
Annuities involving life contingencies	669 56
Premium notes and liens voided by lapse, less $1,212.28 restorations	26,707 14
Surrender values paid in cash, or applied in liquidation of loans or notes	157,699 66
Surrender values applied to pay new and renewal premiums	2,514 01
Surrender values applied to purchase paid-up insurance and annuities	32,593 70
Dividends paid policyholders in cash, or applied in liquidation of loans or notes	4,413 47
Dividends applied to pay renewal premiums	13,943 72
Dividends applied to purchase paid-up additions and annuities	87 02
Total paid policyholders	$519,590 55

Expense of investigation and settlement of policy claims, including legal expenses	$2,355 63
Supplementary contracts not involving life contingencies	1,000 00
Interest or dividends to stockholders	70.000 00
Commissions to agents	106,235 52
Commuted renewal commissions	14,256 25
Agency supervision and traveling expenses of supervisors	8,872 70
Branch office expenses	74,075 09
Medical examiners' fees and inspection of risks	17,455 46
Salaries and all other compensation of officers and home employees	100,166 04
Rent, including company's occupancy of its own buildings	32,770 17
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange	31.218 36
Legal expense	2,888 38
Furniture, fixtures and safes	2,313 04
State taxes on premiums	15,253 85
Insurance department licenses and fees	5,851 02
All other licenses, fees and taxes	1,034 03
Advance deposits of 1910 transferred to premium or returned	1.665 72
Commission and expense account Colorado National Consolidation	256,818 61
Home office general expenses	14.740 41
Home office traveling expense	8,693 18
Deposits in insolvent banks charged off	341 63
Bills receivable (uncollectible) charged off	30,549 33
Interest on death claims, payment deferred account disputed title	233 00
Accident and health department (per statement)	166,643 69
Agents' balances charged off	980 86
Decrease in book value of ledger assets	7.843 48
Total disbursements	$1,493,846 00
Balance	$7,374,984 65

LEDGER ASSETS.

Book value of real estate	$40,424 69
Mortgage loans on real estate	1,871,217 18
Loans on company's policies assigned as collateral	826,469 30
Premium notes on policies in force	133,147 99
Book value of bonds and stocks	3.830,060 29
Cash in office	13.725 02
Deposits in trust companies and banks not on interest	4.209 08
Deposits in trust companies and banks on interest	556,607 09
Agents' balances	63,304 34
Suspense, $2,629.46; contingent funds subject to draft by cashiers, $267.82	2,897 28
Accident and health premiums in course of collection	32,922 39
Total ledger assets	$7,374,984 65

Amount brought forward			$7,374,984 65

Non-Ledger Assets.

Interest due and accrued on mortgages		$28,109 52	
Interest due and accrued on bonds		28,147 32	
Interest due and accrued on premium notes, loans or liens		6,889 19	
Bank balances		508 88	
Interest due and accrued on other assets			63,654 91
	New business.	Renewals.	
Net uncollected and deferred premiums	$9,747 57	$158,389 34	168,136 91
Gross assets			$7,606,776 47

Deduct Assets Not Admitted.

Agents' debit balances	$64,044 52	
Contingent funds	267 82	
Loading on premium notes	27,240 76	
Real estate	236 91	
Bonds and stocks	91,746 79	
Accident and health premiums in course of collection, written prior to October 1, 1911	2,455 94	
Suspense	2,629 46	
Total		188,622 20
Admitted assets		$7,418,154 27

LIABILITIES.

Net present value of outstanding policies: American, 3½ per cent, computed by the Massachusetts Insurance Department	$5,656,133 00	
Same for reversionary additions	8,688 00	
Same for annuities	13,599 00	
Total	$5,678,420 00	
Deduct net value of risks reinsured	6,653 00	
Net reserve		$5,671,767 00
Present value of supplementary contracts not involving life contingencies		15,437 00
Surrender values claimable on policies canceled		1,765 99
Death losses in process of adjustment	$18,621 00	
Death losses incurred for which no proofs have been received	41,000 00	
Death losses and other policy claims resisted	15,500 00	
Annuity claims, involving life contingencies, due and unpaid	75 63	
Total policy claims		75,196 63
Dividends left with the company to accumulate at interest		679 43
Premiums paid in advance, including surrender values so applied		7,834 44
Unearned interest and rent paid in advance		12,403 13
Commissions to agents due or accrued		5,764 93
Salaries, rents, office expenses, bills and accounts due or accrued		17,442 15
Medical examiners' and legal fees due or accrued		2,220 31
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		19,596 70
Dividends or other profits due policyholders		2,164 14
Advance deposit account pending insurance		558 41
Balance from sale at foreclosure of O'Brien mortgages		3,999 41
United States Internal Revenue tax, 1909-1910		1,626 09
Accident and health department (per statement)		126,866 03
Paid-up capital		1,000,000 00
Unassigned funds (surplus)		452,832 48
Total liabilities		$7,418,154 27

PREMIUM NOTE ACCOUNT.

On hand December 31, 1910	$97,131 94	
Received during the year on new policies	52,889 56	
Received during the year on old policies	218,246 24	
Restored by revival of policies	1,212 28	
		$369,480 02
Deductions during the year as follows:		
Used in payment of losses and claims	$13 46	
Used in purchase of surrendered policies	792 41	
Voided by lapse	27,919 42	
Used in payment of dividends to policyholders	1,178 50	
Redeemed by maker in cash	206,428 24	
Total reduction of premium note account		236,332 03
Balance note assets at end of the year		$133,147 99

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.	Number.	Amount.
Policies in force December 31, 1910			11,686	$37,220,289 00
Policies issued, revived, changed and increased during the year			9,347	21,634,296 64
Totals			21,033	$58,854,585 64
Deduct policies which have ceased to be in force during the year:				
By death	114	$317,588 80		
By expiry	29	110,910 00		
By surrender	394	1,407,656 00		
By lapse	5,375	5,779,852 00		
By decrease	----	598,740 94		
Totals			2,912	8,214,747 74
Total policies in force at end of year 1911			18,121	$50,639,837 90
Reinsured				$1,080,068 00

EXHIBIT OF POLICIES.

Industrial.

	Number.	Amount.	Number.	Amount.
Policies issued, revived, changed and increased during the year			2,902	$440,414 00
Deduct policies which have ceased to be in force during the year:				
By death	87	$13,624 00		
By surrender	133	19,810 00		
By lapse	145	20,867 00		
Total			365	54,301 00
Total policies in force at end of year 1911			2,537	$386,113 00

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	558	$1,741,560 00
Policies issued during the year	276	686,792 00
Totals	834	$2,428,352 00
Deduct policies ceased to be in force	131	382,040 00
Policies in force December 31, 1911	703	$2,046,312 00
Losses and claims unpaid December 31, 1910	1	$1,500 00
Losses and claims incurred during the year	4	6,500 00
Totals	5	$8,000 00
Losses and claims settled during the year	5	8,000 00
Premiums received		$53,563 59

THE COLUMBIAN NATIONAL LIFE INSURANCE COMPANY.

(Accident and Health Branch).

Boston, Massachusetts.

(Incorporated June 5, 1902. Commenced business in California October 10, 1903.)

ARTHUR E. CHILDS, President. WM. H. BROWN, Secretary.

CAPITAL.

Capital stock paid up in cash, see life statement.

INCOME.

	Net premiums.
Accident—Gross premiums written and renewed during the year, $159,659.82; deduct reinsurance, $4,774.75; return premiums on policies canceled, $2,600.77; premiums on policies not taken, $41,736.62: Total deductions, $49,112.14	$110,547 68
Health—Gross premiums written and renewed during the year, $82,978.81; deduct reinsurance, $1,575.89; return premiums on policies canceled, $960.23; premiums on policies not taken, $20,868.31: Total deductions, $23,404.43	59,574 38
Disability premiums	3,377 11
Total net premiums	$173,499 17

DISBURSEMENTS.

	Net amount paid policyholders.
Accident—Gross amount paid for losses, $40,344.10; deduct reinsurance, $1,016.71	$39,327 39
Health—Gross amount paid for losses, $21,559.72; deduct reinsurance, $921.57	20,638 15
Disability—Gross amount paid for losses	44 48
Total	$60,010 02
Investigation and adjustment of claims	1,237 77
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	49,616 90
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	22,802 55
Salaries, traveling and all other expenses of agents not paid by commissions	10,522 39
Medical examiners' fees and salaries	381 00
Inspections (other than medical and claim)	129 50
Rents	3,418 96
State taxes on premiums	1,268 72
Insurance department licenses and fees	1,173 37
All other licenses, fees and taxes	117 27
Legal expenses	435 35
Advertising	404 60
Printing and stationery	8,392 55
Postage, telegraph, telephone and express	1,931 11
Furniture and fixtures	305 33
Home office, general expense	2,176 71
Home office, traveling	2,276 92
Exchange	42 67
Total disbursements, carried to life statement	$166,643 69

LEDGER ASSETS.

Gross premiums in course of collection, on policies or renewals:

	Issued on or after Oct. 1, 1911.	Prior to Oct. 1, 1911.	
Accident	$20,140 30	$1,504 12	
Health	10,326 15	851 82	
Totals carried to life statement	$30,466 45	$2,455 94	$32,922 39

Deduct Assets Not Admitted.

Premiums in course of collection written prior to October 1, 1911, carried to life statement	2,455 94
Admitted assets	$30,466 45

LIABILITIES.

Losses and claims:	
Accident—Adjusted, $1,412.76; reported in process of adjustment, $14,048.77; resisted, $11,000.00: Total, $26,461.53; deduct reinsurance, $327.50; net unpaid claims except liability claims, $26,134.03; estimated expense of investigation and adjustment of unpaid claims, $400.00	$26,534 03
Health—Adjusted, $1,200.20; reported or in process of adjustment, $7,377.92: Total, $8,578.12; deduct reinsurance, $200.00; net unpaid claims except liability claims, $8,378.12	8,378 12
Total unpaid claims and expenses of settlement	$34,912 15
Unearned premiums at 50 per cent on risks running one year or less	77,138 64
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident, $5,515.20; health, $2,757.59	8,272 79
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued	1,231 74
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement	2,536 60
Reinsurance	757 92
Advance premiums (100 per cent)	327 63
Unearned disability premiums (50 per cent)	1,688 56
Total amount of all liabilities, except capital, carried to life statement	$126,866 03

EXHIBIT OF PREMIUMS.

	Accident.	Health.
In force December 31, 1910	$60,688 49	$24,403 07
Written or renewed during the year	159,659 82	82,978 81
Totals	$220,348 31	$107,381 88
Deduct expirations and cancellations	114,943 77	51,794 61
Balance	$105,404 54	$55,587 27
Deduct reinsured policies	5,177 75	1,536 78
Net in force December 31, 1911	$100,226 79	$54,050 49
Total losses incurred during the year (less reinsurance)		$51,159 58

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

Gross premiums, less return premiums, on risks written or renewed during year:		Gross losses paid.
Accident	$5,887 16	$4,818 17
Health	2,184 17	1,839 66
Totals	$8,071 33	$6,657 83

COLUMBIA LIFE AND TRUST COMPANY.

Portland, Oregon.

(Incorporated January 13, 1906. Commenced business in California, September 29, 1910.)

W. M. LADD, President. M. M. JOHNSON, Secretary.

Agent for service in California: GAVIN MCNAB, San Francisco, Cal.

CAPITAL.

Capital stock paid up in cash	$200,000 00	
Amount of ledger assets December 31st of previous year		$338,368 73

INCOME.

First year's premiums on original policies, less reinsurance	$44.186 06	
Surrender values to pay first year's premiums	352 91	
Total new premiums		$44.538 97
Renewal premiums less reinsurance	$74,963 48	
Surrender values applied to pay renewal premiums	64 00	
Total renewal premiums		75.027 48
Total premium income		$119,566 45
Interest on mortgage loans	$26,628 09	
Interest on bonds and dividends on stocks	700 00	
Interest on premium notes, policy loans or liens	285 28	
Interest on other debts due the company	73 82	
Total interest		27.687 19
Total income		$147.253 64
Total		$485,622 37

DISBURSEMENTS.

Death claims and additions	$27,000 00
Surrender values paid in cash, or applied in liquidation of loans or notes	3,957 72
Surrender values applied to pay new and renewal premiums	416 91
Total paid policyholders	$31,374 63
Expense of investigation and settlement of policy claims, including legal expenses	31 00
Interest or dividends to stockholders	8,000 00
Commissions to agents	23,909 37
Agency supervision and traveling expenses of supervisors	8,941 49
Branch office expenses	7,151 16
Medical examiners' fees and inspection of risks	5.137 45
Salaries and all other compensation of officers and home employees	13,287 65
Rents, including company's occupancy of its own buildings	3,532 00
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange	9,477 47
Legal expense	357 30
Furniture, fixtures and safes	1,060 05
State taxes on premiums	338 47
Insurance department licenses and fees	768 44
All other licenses, fees and taxes	2,227 66
Loan expenses	518 79
Home office traveling expenses	551 30
Office expenses	254 88
Miscellaneous	196 00
Agents' balances charged off	54 38
Decrease in book value of ledger assets	125 20
Total disbursements	$117.294 69
Balance	$368.327 68

LEDGER ASSETS.

Mortgage loans on real estate	$312.605 19
Loans on company's policies assigned as collateral	3.999 80
Premium notes on policies in force	6,192 68
Book value of bonds and stocks (Schedule D)	15.751 60
Cash in office	2.376 33
Deposits in trust companies and banks not on interest	18.751 70
Bills receivable	8.334 09
Agents' balances	983 97
Taxes and insurance advanced on real estate loans	1.300 26
Total ledger assets	$370.295 62

Amount brought forward		$370,295 62

Non-Ledger Assets.

Interest due and accrued on mortgages	$2,502 40	
Interest due and accrued on premium notes, loans or liens	173 89	
Total		2,676 29
Net uncollected and deferred premiums, new business, $4,899.39; renewals, $9,332.48		14,231 87
Furniture and fixtures		5,818 66
Gross assets		$393,022 44

Deduct Assets Not Admitted.

Furniture, fixtures and safes	$5,818 66	
Agents' debit balances	2,076 70	
Bills receivable	8,334 09	
Premium notes or loans on policies and net premiums in excess of value of their policies	535 74	
Total		16,765 19
Admitted assets		$376,257 25

LIABILITIES.

Net present value of outstanding policies: Actuaries, 4 per cent; and American, 3½ per cent; American, 3 per cent; computed by the insurance department	$141,234 74
Premiums paid in advance, including surrender values so applied	901 74
Salaries, rents, office expenses, bills and accounts due or accrued	273 71
Medical examiners' and legal fees due or accrued	578 00
Paid-up capital	200,000 00
Unassigned funds (surplus)	33,269 06
Total liabilities	$376,257 25

PREMIUM NOTE ACCOUNT.

On hand December 31, 1910	$2,288 99	
Received during the year on new policies	151 53	
Received during the year on old policies	10,392 92	
Total		$12,681 91
Total reduction of premium note account		6,489 23
Balance note assets at end of the year		$6,192 68

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	1,615	$3,500,432 49
Policies issued, revived, changed and increased during the year	803	1,744,045 11
Totals	2,418	$5,244,477 60

Deduct policies which have ceased to be in force during the year:

	Number.	Amount.
By death	6	$27,000 00
By surrender	25	30,950 00
By lapse	323	646,010 00
By decrease	----	13,500 00

Totals	354	717,460 00
Total policies in force at end of year 1911	2,064	$4,527,017 60

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	1	$2,000 00
Policies issued during the year	30	59,299 84
Totals	31	$61,299 84
Deduct policies ceased to be in force	4	13,000 00
Policies in force December 31, 1911	27	$48,299 84
Premiums received		$1,510 43

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus.
Loading on actual premiums of the year	$35,739 09		
Insurance expenses incurred during the year	79,469 00		
Loss from loading			$43,729 98
Interest earned during the year	$28,924 81		
Investment expenses incurred during the year	518 79		
Net income from investments	$28,406 02		
Interest required to maintain reserve	4,348 53		
Gain from interest		$24,057 09	
Expected mortality on net amount at risk	$38,990 50		
Actual mortality on net amount at risk	26,777 43		
Gain from mortality		12,213 07	
Total gain during the year from surrendered and lapsed policies		3,937 56	
Dividensd paid stockholders			8,000 00
Net to loss account			54 38

Investment Exhibit.

		Gain in surplus.	Loss in surplus.
Total losses from stocks and bonds			125 20
Loss from assets not admitted			6,272 40
Loss unaccounted for			253 91
Total gains and losses in surplus during the year		$40,2$7 72	$58,435 87
Surplus December 31, 1910	$49,529 27		
Surplus December 31, 1911	31,301 12		
Increase in surplus (enter in column to balance)		18,228 15	
Totals		$58,435 87	$58,435 87

THE CONNECTICUT MUTUAL LIFE INSURANCE COMPANY.

Hartford, Connecticut.

(Incorporated June 15, 1846. Commenced business December 15, 1846.)

JOHN M. TAYLOR, President. WILLIAM H. DEMING, Secretary.

Agent for service in California: A. K. P. HARMON, San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year	$67,088,620 86

INCOME.

First year's premiums on original policies, less reinsurance	$663,641 75	
Dividends applied to purchase paid-up additions and annuities	4,303 65	
Surrender values applied to purchase paid-up insurance and annuities	41,463 67	
Consideration for original annuities involving life contingencies	23,581 88	
Consideration for supplementary contracts involving life contingencies	976 38	
Total new premiums		$733,967 33
Renewal premiums less reinsurance	$4,793,419 82	
Dividends applied to pay renewal premiums	898,276 12	
Surrender values applied to pay renewal premiums	1,116 72	
Total renewal premiums		5,692,812 66
Total premium income		$6,426,779 99
Consideration for supplementary contracts not involving life contingencies		46,035 29
Dividends left with the company to accumulate at interest, including $120,507.23 dividends left to accumulate prior to 1908 and not previously charged through disbursements		341,462 26
Interest on mortgage loans	$1,419,052 29	
Interest on bonds and dividends on stocks, less $113.67 accrued on bonds acquired during 1911	1,102,188 11	
Interest on premium notes, policy loans or liens	281,302 73	
Interest on deposits	22,525 53	
Interest on other debts due the company	37,788 17	
Discount on claims paid in advance	785 81	
Rents, including $35,000 for company's occupancy of its own buildings	254,669 83	
Total interest and rents		3,118,312 47
Unapplied payments on land contracts (suspense account)		24,247 05
Profit on sale or maturity of ledger assets		17,869 88
Increase in book value of ledger assets		5,803 44
Total income		$9,980,510 38
Total		$77,069,131 24

DISBURSEMENTS.

Death claims and additions	$4,572,632 18	
Matured endowments and additions	388,039 40	
Total death claims and endowments		$4,960,671 58
Annuities involving life contingencies		19,317 79
Premium notes and liens voided by lapse, less $148 restorations		481 00
Surrender values paid in cash, or applied in liquidation of loans or notes		1,078,914 49
Surrender values applied to pay new and renewal premiums (see income No. 16)		1,116 72
Surrender values applied to purchase paid-up insurance and annuities		41,463 67
Dividends paid policyholders in cash, or applied in liquidation of loans or notes		306,793 74
Dividends applied to pay renewal premiums		898,276 12
Dividends applied to purchase paid-up additions and annuities		4,303 65
Left with the company to accumulate at interest		220,955 03
Total paid policyholders		$7,532,293 79

Amount brought forward	$7,532,293 79
Expense of investigation and settlement of policy claims, including legal expenses	2,377 33
Supplementary contracts not involving life contingencies	4,502 61
Dividends with interest, held on deposit surrendered during the year	225,583 30
Commissions to agents	565,807 40
Compensation of managers and agents not paid by commissions on new business	15,962 12
Agency supervision and traveling expenses of supervisors	10,796 85
Branch office expenses	44,060 96
Medical examiners' fees and inspection of risks	49,248 72
Salaries and all other compensation of officers and home employees	223,124 10
Rent, including company's occupancy of its own buildings	56,622 78
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange	67,169 99
Legal expense	5,961 99
Furniture, fixtures and safes	661 16
Repairs and expenses (other than taxes) on real estate	138,220 69
Taxes on real estate	92,613 41
State taxes on premiums	65,129 02
Insurance department licenses and fees	5,153 26
All other licenses, fees and taxes	159,385 05
Other disbursements	47,804 67
Loss on sale or maturity of ledger assets	217,936 26
Decrease in book value of ledger assets	13,273 11
Total disbursements	$9,543,686 57
Balance	$67,525,444 67

LEDGER ASSETS.

Book value of real estate	$4,504,933 43
Mortgage loans on real estate	30,786,536 21
Loans on company's policies assigned as collateral	5,314,205 72
Premium notes on policies in force	253,058 85
Book value of bonds and stocks (Schedule D)	25,334,225 25
Deposits in trust companies and banks on interest	529,755 18
Bills receivable	665 00
Agents' balances	443 50
Real estate sold under land contract, balance purchase price (Surplus Schedule A)	801,621 53
Total ledger assets	$67,525,444 67

Non-Ledger Assets.

Interest due and accrued on mortgages		$905,469 05	
Interest due and accrued on bonds		248,292 63	
Interest due and accrued on premium notes, loans or liens		159,800 96	
Interest due and accrued on other assets		16,120 02	
Rents due and accrued on company's property		7,008 55	
			1,336,691 21
	New business.	Renewals.	
Net uncollected and deferred premiums	$60,845 46	$490,462 51	551,007 97
Gross assets			$69,413,143 85

Deduct Assets Not Admitted.

Agents' debit balances	$2,132 25	
Bills receivable	665 00	
Premium notes or loans on policies and net premiums in excess of value of their policies	2,350 00	
Total		570,854 25
Admitted assets		$68,842,289 60

LIABILITIES.

Net present value of outstanding policies: Actuaries, 4 per cent; and American, 3½ per cent; American, 3 per cent; computed by the company's insurance department	$62,687,890 00	
Same for reversionary additions	6,203 00	
Same for annuities	203,457 00	
Total	$62,897,550 00	
Net reserve		$62,897,550 00
Present value of supplementary contracts not involving life contingencies		61,946 67
Surrender values claimable on policies canceled		117,032 00
Death losses due and unpaid	$52,645 68	
Death losses in process of adjustment	102,114 00	
Death losses incurred for which no proofs have been received	136,156 00	
Matured endowments due and unpaid	22,203 00	
Death losses and other policy claims resisted	10,000 00	
Annuity claims, involving life contingencies, due and unpaid	160 99	
Total policy claims		323,279 67
Dividends left with the company to accumulate at interest		1,649,703 34
Premiums paid in advance, including surrender values so applied		29,385 59
Unearned interest and rents paid in advance		125,476 93
Salaries, rents, office expenses, bills and accounts due or accrued, estimated		2,500 00
Medical examiners' and legal fees due or accrued		12,374 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		78,000 00
Dividends or other profits due policyholders		89,600 77
Reserve or surplus funds not otherwise included in liabilities		75,000 00
Surrender values, credited with accrued interest		4,497 53
Suspense account (unapplied payments on land contracts)		24,247 05
Unassigned funds (surplus)		3,351,696 05
Total liabilities		$68,842,289 60

PREMIUM NOTE ACCOUNT.

On hand December 31, 1910	$281,281 42	
Restored by revival of policies	148 00	
		$281,429 42
Deductions during the year as follows:		
Used in payment of losses and claims	$9,520 17	
Used in purchase of surrendered policies	1,361 00	
Voided by lapse	629 00	
Used in payment of dividends to policyholders	14,650 31	
Redeemed by maker in cash	2,810 09	
Total reduction of premium note account		28,370 57
Balance note assets to end of the year		$253,058 85

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.	
Policies in force December 31, 1910			$191,089,776 72
Policies issued, revived, changed and increased during the year			19,928,766 81
Totals			$211,018,543 53
Deduct policies which have ceased to be in force during the year:			
By death	1,871	$4,566,112 03	
By maturity	177	405,338 40	
By expiry	37	120,211 60	
By surrender	1,514	3,561,313 46	
By lapse	1,236	2,406,800 00	
By decrease	----	803,868 00	
Totals			11,863,643 49
Total policies in force at end of year 1911			$199,154,900 04

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	3,393	$6,836,474 00
Policies issued during the year	373	772,234 00
Totals	3,766	$7,608,708 00
Deduct policies ceased to be in force	287	642,456 00
Policies in force December 31, 1911	3,479	$6,966,252 00
Losses and claims unpaid December 31, 1910	3	$5,500 00
Losses and claims incurred during the year	89	191,023 00
Totals	92	$196,523 00
Losses and claims settled during the year	88	188,869 00
Losses and claims unpaid December 31, 1911	4	$7,654 00
Premiums received		$213,713 87

THE EQUITABLE LIFE ASSURANCE SOCIETY OF THE UNITED STATES.

New York City, New York.

(Incorporated July 26, 1859. Commenced business in California July 9, 1878.)

W. A. Day, President. Wm. Alexander, Secretary.

Agent for insurance in California: A. M. Shields, San Francisco.

CAPITAL.

Capital stock paid up in cash	$100,000 00	
Amount of ledger assets December 31st of previous year		$486,610,946 90

INCOME.

First year's premiums on original policies, less reinsurance	$4,648,235 37	
Surrender values to pay first year's premiums	9,553 89	
Dividends applied to purchase paid-up additions and annuities	1,116,621 77	
Consideration for original annuities involving life contingencies	805,618 42	
Consideration for supplementary contracts involving life contingencies	319,186 38	
Total new premiums		$6,899,215 83

Renewal premiums less reinsurance	$44,260,346 25	
Dividends applied to pay renewal premiums	1,642,890 24	
Surrender values applied to pay renewal premiums	34,890 90	
Renewal premiums for deferred annuities	44,805 79	
Total renewal premiums		$45,982,933 18
Total premium income		$52,882,149 01
Consideration for supplementary contracts not involving life contingencies		418,185 22
Dividends left with the company to accumulate at interest		105,886 76
Ledger assets other than premiums from other companies for assuming their risks		3,120 00
Interest on mortgage loans	$4,599,032 47	
Interest on collateral loans	5,612 50	
Interest on bonds and dividends on stocks	11,612,057 25	
Interest on policy loans	3,366,412 28	
Interest on deposits	448,099 89	
Interest on other debts due the company	187,792 75	
Discount on claims paid in advance	10,591 51	
Rents, including $353,071.09 for company's occupancy of its own buildings	1,624,671 85	
Total interest and rents		21,854,270 50
Rent deposits		7,134 39
Deposits on account of insurance		35,400 61
Fire insurance indemnity fund		146,176 19
Profits		6,804 11
Agents' balances previously charged off		97,105 81
Profit on sale or maturity of ledger assets		904,946 49
Increase in book value of ledger assets		173,095 00
Total income		$76,634,274 09
Total		$563,245,220 99

DISBURSEMENTS.

Death claims and additions	$20,549,534 43	
Matured endowments and additions	8,456,396 17	
Total death claims and endowments		$29,005,930 60
Annuities involving life contingencies		1,152,770 86
Surrender values paid in cash, or applied in liquidation of loans or notes		12,350,927 34
Surrender values applied to pay new and renewal premiums		44,444 79
Dividends paid policyholders in cash, or applied in liquidation of loans or notes		9,501,828 54
Dividends applied to pay renewal premiums		1,642,890 24
Dividends applied to purchase paid-up additions and annuities		1,116,621 77
Left with the company to accumulate at interest		105,886 76
Total paid policyholders		$54,921,300 90
Expense of investigation and settlement of policy claims, including legal expenses		21,663 82
Supplementary contracts not involving life contingencies		235,741 16
Dividends with interest, held on deposit surrendered during the year		13,921 67
Interest or dividends to stockholders		7,000 00
Commissions to agents		4,778,754 63
Commuted renewal commissions		12,206 79
Compensation of managers and agents not paid by commissions on new business		121,465 51
Agency supervision and traveling expenses of supervisors (except compensation for home office supervision)		246,430 77
Branch office expenses		1,260,660 42
Medical examiners' fees and inspection of risks		333,414 66
Salaries and all other compensation of officers and home employees		1,414,037 01
Rent, including company's occupancy of its own buildings		302,425 99

Amount brought forward	$63,660,023 33
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange	238,827 17
Legal expense	87,843 59
Furniture, fixtures and safes	27,036 20
Repairs and expenses (other than taxes) on real estate	423,285 77
Taxes on real estate	355,481 17
State taxes on premiums	550,376 90
Insurance department licenses and fees	21,573 94
All other licenses, fees and taxes	91,052 40
Federal corporation tax	29,669 33
Other disbursements	175,453 36
Foreign exchange	40,887 64
Interest on policy claims	5,562 08
Losses	54,029 86
Agents' balances charged off	51,789 24
Loss on sale or maturity of ledger assets	18,506 00
Decrease in book value of ledger assets	894,592 00
Total disbursements	$66,734,989 98
Balance	$496,510,231 01

LEDGER ASSETS.

Book value of real estate	$29,112,258 06
Mortgage loans on real estate	99,375,176 38
Loans on company's policies assigned as collateral	71,346,337 13
Book value of bonds and stocks (Schedule D)	281,313,161 00
Cash in offices	43,897 44
Deposits in trust companies and banks not on interest	371,234 98
Deposits in trust companies and banks on interest	12,623,256 70
Bills receivable	4,935 40
Agents' and other balances	1,811,041 19
Supplies	33,243 77
Cash in transit	475,688 96
Total ledger assets	$496,510,231 01

Non-Ledger Assets.

	New business.	Renewals.	
Interest due and accrued on mortgages		$679,682 13	
Interest due and accrued on bonds		3,556,635 20	
Interest due and accrued on loans		143,653 76	
Interest due and accrued on other assets on deposit		33,037 07	
Rents due and accrued on company's property		240,715 62	
			4,653,723 78
Net uncollected and deferred premiums	$187,344 70	$4,969,194 85	5,156,539 55
Gross assets			$506,320,494 34

Deduct Assets Not Admitted.

Supplies, printed matter and stationery	$33,243 77	
Agents' and other debit balances	1,907,361 00	
Bills receivable	4,935 40	
Book value of ledger assets over market value, stocks	507,857 00	
Total		2,453,397 17
Admitted assets		$503,867,097 17

LIABILITIES.

Surplus and Other Funds.

Net reserve		$408,822,154 00
Present value of supplementary contracts not involving life contingencies		2,344,367 00
Surrender values claimable on policies canceled		73,644 75
Death losses due and unpaid	$76,555 24	
Death losses in process of adjustment	140,492 92	

Death losses incurred for which no proofs have been received	1,720,826 85	
Matured endowments due and unpaid	663,300 66	
Death losses and other policy claims resisted	*134,446 59	
Annuity claims, involving life contingencies, due and unpaid	54,004 29	
Total policy claims		$2,792,626 55
Due and unpaid on supplementary contracts not involving life contingencies		942 50
Dividends left with the company to accumulate at interest		209,693 26
Premiums paid in advance, including surrender values so applied		281,469 18
Unearned interest and rent paid in advance		1,677,049 74
Commissions to agents due or accrued		101,669 68
Salaries, rents, office expenses, bills and accounts due or accrued		206,157 90
Medical examiners' and legal fees due or accrued		58,966 25
Estimated amount hereafter payable for federal, state and other taxes including those based upon the business of the year of this statement		921,752 87
Dividends or other profits due policyholders		1,134,386 74
Dividends declared on or apportioned to annual dividend policies payable to policyholders during 1912		3,375,000 00
Dividends declared on or apportioned to deferred dividend policies payable to policyholders during 1912		9,246,000 00
Reserve for unreported death losses		450,000 00
Fire insurance indemnity fund		146,176 19
Deposits on account of insurance		241,449 05
Paid-up capital		100,000 00
Unassigned funds (surplus) including deferred dividend fund		71,683,591 51
Total liabilities		$503,867,097 17

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	519,518	$1,347,158,692 00
Policies issued, revived, changed and increased during the year	48,017	126,055,526 00
Totals	567,535	$1,473,214,218 00

Deduct policies which have ceased to be in force during the year:

	Number.	Amount.
By death	6,343	$20,408,733 00
By maturity	2,870	8,650,994 00
By expiry	759	3,153,933 00
By surrender	13,079	37,232,530 00
By lapse	9,166	23,843,453 00
By decrease		4,483,115 00

	Number.	Amount.
Totals	32,217	97,772,758 00
Total policies in force at end of year 1911	535,318	$1,375,441,460 00
Reinsured	458	$12,895,627 00

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*The society does not admit that the claims included in this item constitute a liability of the society.

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Losses and claims unpaid December 31, 1910	15	$106,325 64
Losses and claims incurred during the year	193	592,525 80
Totals	208	$698,851 44
Losses and claims settled during the year	178	628,338 44
Losses and claims unpaid December 31, 1911	30	$70,513 00
Premiums received		$1,653,410 28

Collected in state, $1,384,842.21; collected outside state, $268,562.07.

Owing to the loss of records in the recent fire which destroyed the home office, it is impossible to report in greater detail at this time. The omitted schedules and detail will be furnished as soon as they can be completed.

THE FIDELITY MUTUAL LIFE INSURANCE COMPANY.

Philadelphia, Pennsylvania.

(Incorporated December 2, 1878. Commenced business in California in 1884).

L. G. FOUSE, President. H. H. FOUSE, Secretary.

Agent for service in California: JAS. S. OSBORNE, San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year	$21,634,537 78

INCOME.

First year's premiums on original policies, less reinsurance	$390,033 20	
Surrender values to pay the first year's premiums	113 14	
Dividends applied to purchase paid-up additions and annuities	27,251 12	
Surrender values applied to purchase paid-up insurance and annuities	19,123 56	
Consideration for original annuities involving life contingencies	12,322 00	
Consideration for supplementary contracts involving life contingencies	726 77	
Total new premiums		$449,569 79
Renewal premiums less reinsurance	$4,137,185 13	
Dividends applied to pay renewal premiums	141,648 91	
Dividends applied to shorten the endowment or premium-paying period	4,755 76	
Surrender values applied to pay renewal premiums	5,317 76	
Renewal premiums for deferred annuities	2,927 20	
Total renewal premiums		4,291,834 76
Total premium income		$4,741,404 55
Consideration for supplementary contracts not involving life contingencies		82,756 20
Dividends left with the company to accumulate at interest		8,290 95
Interest on mortgage loans	$343,863 92	
Interest on collateral loans	10,752 98	
Interest on premium notes, policy loans or liens	357,024 86	
Interest on bonds and dividends on stocks	347,485 69	
Interest on deposits	9,579 47	
Interest on other debts due the company	21,043 86	

Discount on claims paid in advance	$1,066 05	
Rents, including $40,000 for company's occupancy of its own buildings	86,564 61	
Total interest and rents		$1,177,381 00
Policy fees		112 00
Profit on sale or maturity of ledger assets		2,739 26
Increase in book value of ledger assets		7,011 06
Total income		$6,019,695 02
Total		$27,654,232 80

DISBURSEMENTS.

Death claims and additions	$1,740,741 90	
Matured endowments and additions	45,647 05	
Total death claims and endowments		$1,750,388 95
Annuities involving life contingencies		15,019 03
Surrender values paid in cash, or applied in liquidation of loans or notes		503,287 11
Surrender values applied to pay new and renewal premiums		5,430 90
Surrender values applied to purchase paid-up insurance and annuities		19,123 56
Dividends paid policyholders in cash, or applied in liquidation of loans or notes		18,280 98
Dividends applied to pay renewal premiums		141,648 91
Dividends applied to shorten the endowment or premium-paying period		4,755 76
Dividends applied to purchase paid-up additions and annuities		27,251 12
Left with the company to accumulate at interest		8,290 95
Total paid policyholders		$2,493,477 27
Expense of investigation and settlement of policy claims, including legal expenses		4,949 55
Supplementary contracts not involving life contingencies		43,100 40
Dividends with interest, held on deposit surrendered during the year		1,610 99
Commissions to agents		348,623 76
Commuted renewal commissions		1,800 00
Compensation of managers and agents not paid by commissions on new business		3,860 00
Agency supervision and traveling expenses of supervisors		31,922 78
Branch office expenses		92,541 29
Medical examiners' fees and inspection of risks		38,484 83
Salaries and all other compensation of officers and home employees		179,283 20
Rent, including company's occupancy of its own buildings		68,375 19
Advertising, printing, stationery, telegraph, telephone, express and exchange		52,238 84
Legal expense		10,306 42
Furniture, fixtures and safes		1,068 24
Repairs and expenses (other than taxes) on real estate		51,063 44
Taxes on real estate		12,983 12
State taxes on premiums		71,355 85
Insurance department license and fees		6,449 43
All other licenses, fees and taxes		38,146 92
Miscellaneous expenses		8,180 06
Miscellaneous investment expenses		1,000 75
Loss on sale or maturity of ledger assets		116 61
Decrease in book value of ledger assets		3,351 74
Total disbursements		$3,564,290 68
Balance		$24,089,942 12

LEDGER ASSETS.

Book value of real estate	$1,331,202 28
Mortgage loans on real estate	7,396,251 66
Loans secured by collaterals (Schedule C)	133,091 68
Loans on company's policies assigned as collateral	6,699,967 41
Premium notes on policies in force	415,597 71
Book value on bonds and stocks (Schedule D)	7,329,716 54
Cash in office	756 90
Deposits in trust companies and banks on interest	351,256 51
Bills receivable	26,103 09
Agents' balances	405,998 34
Total ledger assets	$24,089,942 12

Non-Ledger Assets.

Interest due and accrued on mortgages		$155,280 40	
Interest due and accrued on bonds		114,348 10	
Interest due and accrued on collateral loans		357 93	
Interest due and accrued on premium notes, loans or liens		68,492 60	
Rents due and accrued on company's property		881 00	
Total interest and rents			339,360 03
Market value of real estate over book value			54,997 72
	New business.	Renewals.	
Net uncollected and deferred premiums	$4,981 09	$426,029 74	431,010 83
Gross assets			$24,915,310 70

Deduct Assets Not Admitted.

Agents' debit balances	$413,358 95	
Bills receivable	26,103 09	
Premium notes or loans on policies and net premiums in excess of value of their policies	96,738 40	
Book value of ledger assets over market value, bonds and stocks	236,158 04	772,358 48
Total		$24,142,952 22
Special deposits to secure liabilities in Virginia		11,000 00
Admitted assets		$24,131,952 22

LIABILITIES.

Net present value of outstanding policies: Actuaries, 4 per cent; and American, 3½ per cent; American, 3 per cent; computed by the insurance department	$20,952,360 00	
Same for reversionary additions	41,133 00	
Same for annuities	153,247 00	
Total	$21,146,740 00	
Deduct net value of risks reinsured	3,157 00	
Net reserve		$21,143,583 00
Present value of supplementary contracts not involving life contingencies		385,396 78
Surrender values claimable on policies canceled		9,014 76
Death losses in process of adjustment	$24,000 00	
Death losses incurred for which no proofs have been received	67,161 01	
Death losses and other policy claims resisted	34,282 10	
Total policy claims		125,443 11
Due and unpaid on supplementary contracts not involving life contingencies		2,680 00
Dividends left with the company to accumulate at interest		18,546 52
Premiums paid in advance, including surrender values so applied		7,757 14
Unearned interest and rents paid in advance		117,857 33
Commissions due agents on premium notes, when paid		12,538 93
Salaries, rents, office expenses, bills and accounts due or accrued		3,727 41

Medical examiners' and legal fees due or accrued	$6,805 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement	74,588 48
Dividends or other profits due policyholders	12,017 10
Dividends declared on or apportioned to annual dividend policies payable to policyholders during 1912	161,929 03
Dividends declared on or apportioned to deferred dividend policies payable to policyholders during 1912	4,505 26
Amount set apart, apportioned, provisionally ascertained, calculated, declared or held awaiting apportionment upon deferred dividend policies	1,191,323 72
Unassigned funds (surplus)	865,238 65
Total liabilities	$24,142,952 22

Special deposits in Virginia in excess secured thereby $9,000.00.

PREMIUM NOTE ACCOUNT.

On hand December 31, 1910	$407,537 15	
Received during the year on new policies	143,759 71	
Received during the year on old policies	516,942 33	
		$1,068,239 19
Restored by revival of policies		
Redeemed by maker in cash		652,641 48
Balance note assets at end of the year		$415,597 71

EXHIBIT OF POLICIES.

Ordinary.

			Number.	Amount.
Policies in force December 31, 1910			60,574	$126,218,844 00
Policies issued, revived, changed and increased during the year			5,953	13,232,698 00
Totals			66,527	$139,451,542 00
Deduct policies which have ceased to be in force during the year:				
By death	659	$1,643,091 00		
By maturity	35	50,058 00		
By expiry	355	695,234 00		
By surrender	1,227	2,577,037 00		
By lapse	2,719	5,801,404 00		
By decrease	11	393,771 00		
Totals			5,006	11,161,485 00
Total policies in force at end of year 1911			61,521	$128,290,057 00
Reinsured			23	$271,594 00

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	1,918	$4,898,355 00
Policies issued during the year	151	492,981 00
Totals	2,069	$5,391,336 00
Deduct policies ceased to be in force	68	192,588 00
Policies in force December 31, 1911	2,001	$5,198,748 00
Losses and claims unpaid December 31, 1910	2	$3,000 00
Losses and claims incurred during the year	25	80,792 00
Totals	27	$83,792 00
Losses and claims settled during the year	26	82,261 00
Losses and claims unpaid December 31, 1911	1	$1,531 00
Premiums received		*$190,892 89

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*$190,892.89, less premiums returned, $18,019.21: $172,873.68.

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus.
Loading on actual premiums of the year (averaging 22 per cent of the gross premiums)	$1,051,567 61		
Insurance expenses incurred during the year	961,971 84		
Gain from loading		$89,595 77	
Interest earned during the year	$1,214,410 33		
Investment expenses incurred during the year	101,061 70		
Net income from investments	$1,113,348 63		
Interest required to maintain reserve	726,973 14		
Gain from interest		386,375 49	
Expected mortality on net amount at risk	$1,539,841 00		
Actual mortality on net amount at risk	1,331,829 01		
Gain from mortality		208,011 99	
Expected disbursements to annuitants	$12,541 09		
Net actual annuity claims incurred	13,731 66		
Loss from annuities			$1,190 57
Total gain during the year from surrendered and lapsed policies		69,999 16	
Decrease in surplus on dividend account			551,850 18
Net to gain account		112 00	
Investment Exhibit.			
Total gains from stocks and bonds		2,739 26	
Total losses from stocks and bonds			50,785 98
Loss from assets not admitted			24,168 76
Special credit to policyholders			80,713 11
Gain unaccounted for		874 59	
Total gains and losses in surplus during the year		$757,708 26	$708,708 60
Surplus December 31, 1910	$816,238 99		
Surplus December 31, 1911	865,238 65		
Increase in surplus (enter in column to balance)			48,999 66
Totals		$757,708 26	$757,708 26

THE GERMANIA LIFE INSURANCE COMPANY.

New York City, New York.

(Incorporated April 10, 1860.)

CORNELIUS DOREMUS, President. CARL HEYE, Secretary.

Agent for service in California: THOMAS H. HARRIS, San Francisco.

CAPITAL.

Capital stock paid up in cash	$200,000 00	
Amount of ledger assets December 31st of previous year		$44,279,376 33

INCOME.

First year's premiums on original policies, less reinsurance	$670,096 52	
Dividends applied to purchase paid-up additions and annuities	59,602 74	
Surrender values applied to purchase paid-up insurance and annuities	130,370 28	
Consideration for original annuities involving life contingencies	18,143 43	
Total new premiums		$878,212 97
Renewal premiums less reinsurance	$4,459,863 58	
Dividends applied to pay renewal premiums	338,498 08	
Renewal premiums for deferred annuities	231 96	
Total renewal premiums		4,798,593 62
Total premium income		$5,676,806 59
Consideration for supplementary contracts not involving life contingencies		3,677 50
Dividends left with the company to accumulate at interest		2,338 03
Interest on mortgage loans	$1,229,361 44	
Interest on bonds and dividends on stocks	386,237 31	
Interest on premium notes, policy loans or liens	253,665 93	
Interest on deposits	11,624 62	
Interest on other debts due the company	600 67	
Discount on claims paid in advance	80 98	
Rents, including $36,080.23 for company's occupancy of its own buildings	225,968 50	
Total interest and rents		2,107,539 45
Policy fees		2,581 96
Recovered on deficiency judgments, etc., on account of real estate taken under foreclosure		3,392 40
Profit on sale or maturity of ledger assets		11,607 01
Increase in book value of ledger assets		155,884 54
Total income		$7,963,827 48
Total		$52,243,203 81

DISBURSEMENTS.

Death claims and additions	$1,662,105 38	
Matured endowments and additions	1,522,690 23	
Total death claims and endowments		$3,184,795 61
Annuities involving life contingencies		42,009 34
Surrender values paid in cash, or applied in liquidation of loans or notes		664,140 20
Surrender values applied to purchase paid-up insurance and annuities		130,370 28
Dividends paid policyholders in cash, or applied in liquidation of loans or notes		325,607 11
Dividends applied to pay renewal premiums		338,498 08
Dividends applied to purchase paid-up additions and annuities		59,602 74
Left with the company to accumulate at interest		2,338 03
Total paid policyholders		$4,747,361 39
Expense of investigation and settlement of policy claims, including legal expenses		2,430 16
Supplementary contracts not involving life contingencies		5,066 66
Dividends with interest, held on deposits surrendered during the year		785 73
Interest and dividends to stockholders		24,000 00
Commissions to agents		476,438 65
Commuted renewal commissions		2,746 91
Agency supervision and traveling expenses of supervisors		105,764 89
Branch office expenses		232,777 33

Amount brought forward	$5,597.371 72
Medical examiners' fees and inspection of risks	48.970 45
Salaries and all other compensation of officers and home employees	221,399 61
Rents, including company's occupancy of its own buildings	44.895 23
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange	76,649 04
Legal expense	946 96
Furniture, fixtures and safes	46,437 03
Repairs and expenses (other than taxes) on real estate	111,504 22
Taxes on real estate	45,846 77
State taxes on premiums	54,713 98
Insurance department licenses and fees	4,837 16
All other licenses, fees and taxes	9,777 82
Insurance papers	1,823 81
Association dues	2,622 38
Sundries	19,146 37
Agents' balances charged off	18,256 37
Loss on sale or maturity of ledger assets	16,267 60
Decrease in book value of ledger assets	220,226 25
Total disbursements	$6,541,692 77
Balance	$45,701,511 04

LEDGER ASSETS.

Book value of real estate	$4,322,165 19
Mortgage loans on real estate	26,863,279 20
Loans on company's policies assigned as collateral	4,836,662 25
Book value of bonds and stocks	9,247,117 95
Cash in office	3,233 49
Deposits in trust companies and banks not on interest	62,818 28
Deposits in trust companies and banks on interest	366,234 68
Total ledger assets	$45,701,511 04

Non-Ledger Assets.

Interest due and accrued on mortgages		$441,537 97	
Interest due and accrued on bonds		130,987 44	
Interest due and accrued on premium notes, loans or liens		29,586 21	
Rents due and accrued on company's property		3,165 86	
Total			605,277 48
	New business.	Renewals.	
Net uncollected and deferred premiums	$60,464 88	$852,086 24	912,551 12
Gross assets			$47,219,339 64

Deduct Assets Not Admitted.

Book value of ledger assets over market value, bonds	433,207 73
Admitted assets	$46,786,131 91

LIABILITIES.

Net present value of outstanding policies: American, 3½ per cent; American, 3 per cent; computed by the New York Insurance Department	$38,564,346	
Same for reversionary additions	439,619	
Same for annuities	447,077	
Total	$39,451,042	
Deduct net value of risks reinsured	64,404	
Net reserve		$39,386,638 00

Present value of supplementary contracts not involving life contingencies		$60,360 76
Surrender values claimable on policies canceled		15,688 88
Death losses due and unpaid	$9,750 01	
Death losses in process of adjustment	148,107 63	
Death losses incurred for which no proofs have been received	93,196 15	
Matured endowments due and unpaid	59,050 22	
Death losses and other policy claims resisted	11,541 54	
Annuity claims, involving life contingencies, due and unpaid	3,508 26	
Total policy claims		325,153 81
Dividends left with the company to accumulate at interest		11,229 04
Premiums paid in advance, including surrender values so applied		16,951 73
Unearned interest and rents paid in advance		60,645 38
Commissions to agents due or accrued		1,579 72
Salaries, rents, office expenses, bills and accounts due or accrued		8,147 38
Medical examiners' and legal fees due or accrued		3,195 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		52,343 59
Dividends or other profits due policyholders		143,647 16
Dividends declared on or apportioned to annual dividend policies payable to policyholders during 1912		463,000 00
Dividends declared on or apportioned to deferred dividend policies payable to policyholders during 1912		369,125 33
Amounts set apart, apportioned, provisionally ascertained, calculated, declared or held awaiting apportionment upon deferred dividend policies		3,355,328 55
Extra reserve for absolute, war and world policies and other liabilities		173,799 77
Paid-up capital		200,000 00
Unassigned funds (surplus)		2,139,297 81
Total liabilities		$46,786,131 91

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	2,129	$4,453,620 70
Policies issued during the year	238	717,025 40
Totals	2,367	$5,170,646 10
Deduct policies ceased to be in force	87	162,365 00
Policies in force December 31, 1911	2,280	$5,008,281 10
Losses and claims unpaid December 31, 1910	12	$53,819 06
Losses and claims incurred during the year	34	83,704 23
Totals	46	$137,523 29
Losses and claims settled during the year	40	128,237 29
Losses and claims unpaid December 31, 1911	6	$9,286 00
Premiums received		$180,433 36

BUSINESS IN CALIFORNIA.

Industrial.

	Number.	Amount.
Policies in force December 31, 1910	2	$289 00
Deduct policies ceased to be in force	1	89 00
Policies in force December 31, 1911	1	$200 00
Losses and claims settled during the year	1	89 00
Premiums received		$7 20

HOME LIFE INSURANCE COMPANY.

No. 256 Broadway, New York City, New York.

(Incorporated April 30, 1860. Commenced business in California, 1886.)

George E. Ide, President. Ellis W. Gladwin, Secretary.

Agent for service in California: Frank Sperling, San Francisco.

CAPITAL.

Capital stock paid up in cash	$125,000 00	
Amount of ledger assets December 31st of previous year		$24,665,026 70

INCOME.

First year's premiums on original policies, less reinsurance	$369,129 74	
Dividends applied to purchase paid-up additions and annuities	318,088 93	
Matured endowments applied to purchase paid-up insurance and annuities	2,063 52	
Consideration for original annuities involving life contingencies	43,133 52	
Consideration for supplementary contracts involving life contingencies	3,198 19	
Total new premiums		$735,613 90
Renewal premiums less reinsurance	$2,929,261 78	
Dividends applied to pay renewal premiums	132,632 18	
Surrender values applied to pay renewal premiums	149 75	
Renewal premiums for deferred annuities	19,624 07	
Total renewal premiums		3,081,667 78
Total premium income		3,817,281 68
Consideration for supplementary contracts not involving life contingencies		95,505 00
Dividends left with the company to accumulate at interest		8,538 18
Interest on mortgage loans	$349,556 95	
Interest on bonds and dividends on stocks	549,390 40	
Interest on premium notes, policy loans or liens	218,389 48	
Interest on deposits	4,972 99	
Interest on agents' advances	1,397 47	
Discount on claims paid in advance	109 39	
Rents, including $24,000 for company's occupancy of its own buildings	98,313 50	
Total interest and rents		1,222,130 24
Agents' balances previously charged off		13
Profit on sale or maturity of ledger assets		9,941 47
Increase in book value of ledger assets		5,665 00
Total income		$5,159,061 70
Total		$29,824,088 40

DISBURSEMENTS.

Death claims and additions	$1,169,870 10	
Matured endowments and additions	420,870 22	
Total death claims and endowments		$1,590,740 32
Annuities involving life contingencies		43,133 22
Surrender values paid in cash, or applied in liquidation of loans or notes		691,460 57
Surrender values applied to pay new and renewal premiums		149 75
Dividends paid policyholders in cash, or applied in liquidation of loans or notes		25,121 87
Dividends applied to pay renewal premiums		132,632 18
Dividends applied to purchase paid-up additions and annuities		318,088 93
Left with the company to accumulate at interest		8,538 18
Total paid policyholders		$2,809,865 02

Amount brought forward	$2,809,865 02
Expense of investigation and settlement of policy claims, including legal expenses	1,182 57
Supplementary contracts not involving life contingencies	21,473 29
Dividends with interest, held on deposits surrendered during the year	1,258 14
Interest or dividends to stockholders	15,000 00
Commissions to agents	389,301 28
Commuted renewal commissions	1,443 00
Agency supervision and traveling expenses of supervisors	16,178 61
Branch office expenses	82,973 00
Medical examiners' fees and inspection of risks	26,262 32
Salaries and all other compensation of officers and home employees	178,570 30
Rent, including company's occupancy of its own buildings	24,000 00
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange	33,119 10
Legal expense	5,895 53
Furniture, fixtures and safes	4,057 70
Repairs and expenses (other than taxes) on real estate	33,816 01
Taxes on real estate	17,827 44
State taxes on premiums	45,727 29
Insurance department licenses and fees	8,558 35
All other licenses, fees and taxes	6,062 35
Other disbursements	12,492 24
Loss on sale or maturity of ledger assets	2,267 00
Decrease in book value of ledger assets	104,627 31
Total disbursements	$3,841,957 85
Balance	$25,982,130 55

LEDGER ASSETS.

Book value of real estate	$1,550,000 00
Mortgage loans on real estate	7,166,090 00
Loans on company's policies assigned as collateral	3,175,699 00
Premium notes on policies in force	596,865 17
Book value of bonds and stocks (Schedule D)	13,212,706 25
Cash in office	914 22
Deposits in trust companies and banks not on interest	104,491 32
Deposits in trust companies and banks on interest	160,985 22
Agents' balances (debit, $14,579.38; credit, $200.01): net	14,379 37
Total ledger assets	$25,982,130 55

Non-Ledger Assets.

Interest due and accrued on mortgages		$29,298 59	
Interest due and accrued on bonds		162,968 00	
Interest due and accrued on premium notes, loans or liens		14,771 21	
Interest accrued on deposits in banks and trust companies		350 00	
Rents due and accrued on company's property		3,100 83	
Total interest and rents			210,488 63
	New business.	Renewals.	
Net uncollected and deferred premiums	$32,672 70	$343,289 19	375,961 89
Gross assets			$26,568,581 07

Deduct Assets Not Admitted.

Agents' debit balances	$14,579 38	
Book value of ledger assets over market value, bonds and stocks	176,581 50	
Total		191,160 88
Admitted assets		$26,377,420 19

LIABILITIES.

Net present value of outstanding policies: Actuaries, 4 per cent; American, 3½ per cent; American, 3 per cent: computed by the New York Insurance Department	$20,886,812	
Same for reversionary additions	2,466,739	
Same for annuities	539,046	
Total	$23,892,597	
Deduct net value of risks reinsured	154,953	
Net reserve		$23,737,644 00
Present value of supplementary contracts not involving life contingencies		251,225 00
Surrender values claimable on policies canceled		5,608 28
Death losses in process of adjustment	$3,127 47	
Death losses incurred for which no proofs have been received	117,080 62	
Matured endowments due and unpaid	21,491 63	
Death losses and other policy claims resisted	5,000 00	
Total policy claims		146,699 72
Dividends left with the company to accumulate at interest		18,913 27
Premiums paid in advance, including surrender values so applied		23,902 14
Unearned interest and rents paid in advance		112,970 11
Commissions to agents due or accrued		2,871 45
Salaries, rents, office expenses, bills and accounts due or accrued		2,500 00
Medical examiners' and legal fees due or accrued		2,655 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		58,000 00
Dividends or other profits due policyholders		10,937 49
Other liabilities reported December 31st		15,000 00
Paid-up capital		125,000 00
Unassigned funds (surplus)		1,863,493 73
Total liabilities		$26,377,420 19

PREMIUM NOTE ACCOUNT.

On hand December 31, 1910	$607,788 02	
Received during the year on new policies	32 95	
Received during the year on old policies	94,670 98	
Restored by revival of policies	21,173 34	
		$723,665 29
Deductions during the year as follows:		
Used in payment of losses and claims	$22,651 16	
Used in purchase of surrendered policies	57,757 31	
Used in payment of dividends to policyholders	12,918 76	
Total reduction of premium note account		126,800 12
Balance note assets at end of the year		$596,865 17

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount
Policies in force December 31, 1910	50,869	$100,214,968 00
Policies issued, revived, changed and increased during the year	5,411	12,885,151 00
Totals	56,280	$113,100,119 00

Deduct policies which have ceased to be in force during the year:

	Number.	Amount.
By death	531	$1,215,203 00
By maturity	152	421,220 00
By expiry	52	147,000 00
By surrender	1,483	2,673,262 00
By lapse	1,569	3,174,595 00
By decrease		421,079 00

	Number.	Amount
Totals	3,787	8,052,359 00
Total policies in force at end of year 1911	52,493	$105,047,760 00
Reinsured	133	$1,621,028 00

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	1,727	$3,783,269 00
Policies issued during the year	237	536,388 16
Totals	1,964	$4,319,657 16
Deduct policies ceased to be in force	120	315,771 16
Policies in force December 31, 1911	1,844	$4,003,886 00
Losses and claims incurred during the year	26	$70,285 16
Losses and claims settled during the year	25	69,285 16
Losses and claims unpaid December 31, 1911	1	$1,000 00
Net premiums received		$154,843 79

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus.
Loading on actual premiums of the year (averaging 20.86 per cent of the gross premiums)	$804,290 23		
Insurance expenses incurred during the year	819,247 01		
Loss from loading		------------	$14,956 78
Interest earned during the year	$1,221,742 84		
Investment expenses incurred during the year	91,544 45		
Net income from investments	$1,130,198 39		
Interest required to maintain reserve	890,221 00		
Gain from interest		$239,977 39	
Expected mortality on net amount at risk	$984,819 07		
Actual mortality on net amount at risk	733,801 42		
Gain from mortality		251,017 65	
Expected disbursements to annuitants	$26,307 00		
Net actual annuity claims incurred	4,143 22		
Gain from annuities		22,163 78	

		Gain in surplus.	Loss in surplus.
Total gain during the year from surrendered and lapsed policies		$125,676 87	
Dividends paid stockholders			$15,000 00
Decrease in surplus on dividend account			483,940 84
Decrease in special funds, and special reserves during the year		43,609 81	
Net to profit account		13	
Investment Exhibit.			
Total losses from real estate			93,609 81
Total gains from stocks and bonds		9,941 47	
Total losses from stocks and bonds			11,299 57
From assets not admitted		3,144 50	
Loss on account of method of valuation of dividend endowment accumulations			7,843 00
Total gains and losses in surplus during the year		$695,531 60	$626,650 00
Surplus December 31, 1910	$1,794,612 13		
Surplus December 31, 1911	1,863,493 73		
Increase in surplus (enter in column to balance)			68,881 60
Totals		$695,531 60	$695,531 60

INTERNATIONAL LIFE INSURANCE COMPANY.

St. Louis, Missouri.

(Incorporated August 19, 1909. Commenced business in California June 7, 1911.)

MASSEY WILSON, President. W. F. GRANTGES, Secretary.

Agent for service in California: P. S. WILSON, San Francisco.

CAPITAL.

Capital stock paid up in cash	$620,350 00	
Amount of ledger assets December 31st of previous year		$1,086,717 50

INCOME.

First year's premiums on original policies, less reinsurance, $10,277.98		$245,190 60
Renewal premiums less reinsurance, $3,803.74	$249,932 72	
Dividends applied to pay renewal premiums	21,220 09	
Total renewal premiums		271,152 81
Total premium income		$516,343 41
Dividends left with the company to accumulate at interest		24,170 64
Ledger assets other than premiums from other companies for assuming their risks		6,196 52
Interest on mortgage loans	$40,325 12	
Interest on collateral loans	1,111 17	
Interest on bonds and dividends on stocks	4,937 58	
Interest on premium notes, policy loans or liens	1,022 61	
Interest on deposits	4,209 03	
Interest on other debts due the company, brokers' returns and agents' debtor balance	1,620 31	
Total interest		53,225 82
Advance and partial payments	$3,325 95	
Commission and expense on mortgage loans	1,727 59	
Total		5,053 54
Profit on sale or maturity of ledger assets		7,792 76
Total income		$612,782 69
Total		$1,699,500 19

DISBURSEMENTS.

Death claims and additions	$34,700 00
Surrender values paid in cash, or applied in liquidation of loans or notes	1,578 00
Dividends paid policyholders in cash, or applied in liquidation of loans or notes	2,446 54
Dividends applied to pay renewal premiums	21,220 09
Left with the company to accumulate at interest	24,170 64
Total paid policy holders	$84,115 27
Expense of investigation and settlement of policy claims, including legal expenses, $25	265 65
Commissions to agents	199,741 95
Compensation of managers and agents not paid by commissions on new business	4,958 82
Agency supervision and traveling expenses of supervisors	8,765 24
Medical examiners' fees and inspection of risks	28,337 76
Salaries and all other compensation of officers and home employees	40,699 64
Rent, including company's occupancy of its own buildings	6,827 46
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange	20,515 56
Legal expense	1,868 00
Furniture, fixtures and safes	874 92
State taxes on premiums	6,410 69
Insurance department licenses and fees	5,381 05
All other licenses, fees and taxes	11,217 92
Other disbursements	20,412 46
Loss on sale or maturity of ledger assets	4,756 25
Total disbursements	$445,148 64
Balance	$1,254,351 55

LEDGER ASSETS.

Mortgage loans on real estate	$829,301 65
Loans on company's policies assigned as collateral	14,590 09
Premium notes on policies in force	6,856 55
Book value of bonds and stocks	154,272 50
Cash in office	705 21
Deposits in trust companies and banks, checking account	116,763 47
Deposits in trust companies and banks on interest, C. D.'s	61,835 05
Bills receivable	10,031 97
Agents' balances, debit, $61,608.08; credit, $3,035.62: net	58,572 46
Policy lien notes	1,422 60
Total ledger assets	$1,254,351 55

Non-Ledger Assets.

Interest due and accrued on mortgages		$17,242 64	
Interest due and accrued on bonds		2,413 75	
Interest due and accrued on premium notes, loans or liens		100 71	
Interest due and accrued in banks		1,035 41	
			20,792 51
	New business.	Renewals.	
Net uncollected and deferred premiums	$23,712 06	$42,135 87	65,847 93
Gross assets			$1,340,991 99

Deduct Assets Not Admitted.

Agents' debit balances, $61,608.08 (less $1,313.98)	$60,294 10	
Bills receivable	10,031 97	
Premium notes or loans on policies and net premiums in excess of value of their policies	14,725 31	
		$85,051 38
Book value of ledger assets over market value, bonds		830 00
Total		$85,881 38
Admitted assets		$1,255,110 61

LIABILITIES.

Net present value of outstanding policies: Actuaries, 4 per cent; and American, 3½ per cent; American, 3 per cent; computed by the Actuary Insurance Department	$361,440 00	
Total	$361,440 00	
Deduct net value of risks reinsured	6,315 00	
	$355,125 00	
Reserve to provide for health and accident benefits contained in life policies	3,865 00	
Net reserve		$358.990 00
Death losses in process of adjustment	$13,000 00	
Death losses incurred for which no proofs have been received	1.000 00	
Death losses and other policy claims resisted	3.000 00	
Total policy claims		17.000 00
Dividends left with the company to accumulate at interest		32,065 97
Premiums paid in advance, including surrender values so applied		2.435 73
Unearned interest and rent paid in advance		435 47
Commissions to agents due or accrued		278 50
Salaries, rents, office expenses, bills and accounts due or accrued		1.596 53
Medical examiners' and inspection fees due or accrued		1.425 23
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		7.287 76
Reinsurance premiums due and unpaid, $235 25; advance and partial payments (suspense), $3,453 55		3.688 80
Paid-up capital		620.350 00
Unassigned funds (surplus)		209,556 62
Total liabilities		$1,255,110 61

Special deposits in Missouri in excess of liabilities secured thereby, $4.872 10.

PREMIUM NOTE ACCOUNT.

Received during the year on new and old policies	$28.379 32	
Restored by revival of policies	1,862 73	
		$30.242 05
Deductions during the year as follows:		
Voided by lapse	$8,543 98	
Used in payment of dividends to policyholders	14,841 52	
Total reduction of premium note account		23.385 50
Balance note assets at end of the year		$6.856 55

EXHIBIT OF POLICIES.

Ordinary.

			Number.	Amount.
Policies in force December 31, 1910			6.452	$12.361.706 00
Policies issued, revived, changed and increased during the year			5.864	11.569.159 00
Totals			12.313	$23.930.865 00
Deduct policies which have ceased to be in force during the year:	Number.	Amount.		
By death	28	$45.500 00		
By surrender	6	10.000 00		
By lapse	2.336	4.627.079 00		
By decrease	----	14.000 00		
Not taken	1.547	3.530.919 00		
Totals			3.917	8.227.498 00
Total policies in force at end of year 1911			8.396	$15.703.367 00
Reinsured			336	$2.207.299 00

EXHIBIT OF POLICIES.

Intermediate.

	Number.	Amount.	Number.	Amount.
Policies in force December 31, 1910			647	$395,300 00
Policies issued, revived, changed and increased during the year			125	52,100 00
Totals			772	$447,400 00
Deduct policies which have ceased to be in force during the year:				
By death	3	$2,250 00		
By lapse	265	143,650 00		
Totals			268	145,900 00
Total policies in force at end of year 1911			504	$301,500 00

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Policies issued during the year	19	$28,000 00
Totals	19	$28,000 00
Deduct policies ceased to be in force	4	6,000 00
Policies in force December 31, 1911	15	$22,000 00
Premiums received		$1,194 34

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus.
Loading on actual premiums of the year	$203,020 59		
Insurance expenses incurred during the year	383,031 11		
Loss from loading		------------	$180,010 52
Interest earned during the year	$55,924 84		
Investment expenses incurred during the year	731 41		
Net income from investments	$55,193 43		
Interest required to maintain reserve	10,885 00		
Gain from interest		$44,308 43	
Expected mortality on net amount at risk	$128,619 28		
Actual mortality on net amount at risk	48,389 57		
Gain from mortality		80,229 71	
Total gain during the year from surrendered and lapsed policies		13,254 68	

Investment Exhibit.

		Gain in surplus.	Loss in surplus.
Total gains from stocks and bonds		10,545 26	
Total losses from stocks and bonds		------------	4,756 25
Gains on other investments		12,870 34	
Gain from assets not admitted		37,117 80	
Paid for surrender of policy		------------	203 10
Total gains and losses in surplus during the year		$198,326 22	$184,969 87
Surplus December 31, 1910	$196,200 27		
Surplus December 31, 1911	209,556 62		
Increase in surplus (enter in column to balance)		------------	13,356 35
Totals		$198,326 22	$198,326 22

THE MANHATTAN LIFE INSURANCE COMPANY.

New York City, New York.

(Incorporated 1850.)

HENRY B. STOKES, President. MELVIN DE MOTT, Secretary.

Agent for service in California: JOHN LANDERS, San Francisco.

CAPITAL.

Capital stock paid up in cash	$100,000 00	
Amount of ledger assets December 31st of previous year		$20,859,200 97

INCOME.

First year's premiums on original policies, less reinsurance	$179,554 51	
Surrender values to pay first year's premiums	7,217 91	
Dividends applied to purchase paid-up additions and annuities	6,927 66	
Consideration for original annuities involving life contingencies	4,000 00	
Total new premiums	$197,700 08	
Renewal premiums less reinsurance	1,953,111 77	
Dividends applied to pay renewal premiums	56,962 31	
Surrender values applied to pay renewal premiums	2,143 92	
Total premium income		$2,209,918 08
Consideration for supplementary contracts not involving life contingencies		62,000 00
Dividends left with the company to accumulate at interest		1,732 21
Interest on mortgage loans	$413,748 59	
Interest on bonds and dividends on stocks	167,168 33	
Interest on premium notes, policy loans or liens	180,699 39	
Interest on deposits	12,472 29	
Interest on other debts due the company	550 77	
Rents, including $51,500 for company's occupancy of its own buildings	270,890 00	
Total interest and rents		1,045,529 37
From other sources: Claim collected from Mutual Life Insurance Company on Richard J. Ball policy, $10,083.00; suit of Company vs. Richard Reeves & Son, compromised for $4,000.00; legal expenses repaid by an agent, $100.00; repayment of forged check account of policy loan, $44.00 (see disbursements)		14,227 00
Agents' balances previously charged off		434 35
Profit on sale or maturity of ledger assets		2,963 74
Increase in book value of ledger assets		3,221 00
Total income		$3,340,025 75
Total		$24,199,226 72

DISBURSEMENTS.

Death claims and additions	$1,260,205 22	
Matured endowments and additions	85,826 00	
Total death claims and endowments		$1,346,031 22
Annuities involving life contingencies		9,536 69
Premium notes and liens voided by lapse, less $6,011.06 restoration		13,226 97
Surrender values paid in cash, or applied in liquidation of loans or notes		598,388 58
Surrender values applied to pay new and renewal premiums		9,361 83
Dividends paid policyholders in cash, or applied in liquidation of loans or notes		145,195 21
Dividends applied to pay renewal premiums		56,962 31
Dividends applied to purchase paid-up additions and annuities		6,927 66
Left with the company to accumulate at interest		1,732 21
Total paid policyholders		$2,187,362 68

Expense of investigation and settlement of policy claims, including legal expenses	$2,396 97
Supplementary contracts not involving life contingencies	4,228 67
Dividends with interest, held on deposit surrendered during the year	389 77
Interest or dividends to stockholders	16,000 00
Commissions to agents	206,264 93
Agency supervision and traveling expenses of supervisors and agents	10,830 27
Branch office expenses	24,628 87
Medical examiners' fees and inspection of risks	15,452 36
Salaries and all other compensation of officers and home employees	116,603 25
Rent, including company's occupancy of its own buildings	66,408 79
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange	22,872 39
Legal expense	16,660 45
Furniture, fixtures and safes	1,129 00
Repairs and expenses (other than taxes) on real estate	95,824 22
Taxes on real estate	79,928 00
State taxes on premiums	36,081 14
Insurance department licenses and fees	4,015 17
All other licenses, fees and taxes	3,376 79
Other disbursements	18,239 46
Decrease in book value of ledger assets	2,413 00
Total disbursements	$2,931,106 18
Balance	$21,268,120 54

LEDGER ASSETS.

Book value of real estate	$5,474,840 73
Mortgage loans on real estate	7,931,690 71
Loans on company's policies assigned as collateral	3,517,206 07
Premium notes on policies in force	216,173 10
Book value of bonds and stocks (Schedule D)	3,781,322 25
Cash in office	9,214 30
Deposits in trust companies and banks not on interest	25,000 00
Deposits in trust companies and banks on interest	288,943 59
Agents' balances (debit, $24,274.32; credit, $544.53)	23,729 79
Total ledger assets	$21,268,120 54

Non-Ledger Assets.

	New business.	Renewals.	
Interest due and accrued on mortgages		$165,506 09	
Interest due and accrued on bonds		56,064 10	
Interest due and accrued on premium notes, loans or liens		53,878 98	
Interest due and accrued on other assets		2,744 61	
Rents due and accrued on company's property		12,254 62	
			290,448 40
Market value of real estate over book value			343,118 27
Net uncollected and deferred premiums	$6,716 17	$161,143 07	167,859 24
Gross assets			$22,069,546 45

Deduct Assets Not Admitted.

Agents' debit balances	$24,274 32	
Premium notes or loans on policies and net premiums in excess of value of their policies	17 34	
Book value of ledger assets over market value, stocks	62.41 25	
Total		$86,692 91
Admitted assets		$21,982,853 54

LIABILITIES.

Net present value of outstanding policies: Actuaries. 4 per cent; and American. 3½ per cent; American. 3 per cent; and McClintock's. 3½ per cent; computed by the New York Insurance Department	$19.128.168 00	
Same for reversionary additions	43.864 00	
Same for annuities	93.612 00	
Total	$19.265.644 00	
Deduct net value of risks reinsured	109.067 00	
Net reserve		$19.156.577 00
Present value of supplementary contracts not involving life contingencies		85.437 00
Surrender values claimable on policies canceled		3.729 00
Death losses due and unpaid	$3.746 75	
Death losses in process of adjustment	30.204 00	
Death losses incurred for which no proofs have been received	76.092 00	
Matured endowments due and unpaid	1.869 09	
Death losses and other policy claims resisted	23.376 44	
Annuity claims, involving life contingencies, due and unpaid	414 32	
Total policy claims		135.702 60
Dividends left with the company to accumulate at interest		4.600 75
Premiums paid in advance, including surrender values so applied		23.473 94
Unearned interest and rent paid in advance		89.069 48
Commissions due agents on premium notes, when paid		12.702 51
Commissions to agents due or accrued		2.260 00
Salaries, rents, office expenses, bills and accounts due or accrued		5.580 00
Medical examiners' and legal fees due or accrued		1,175 00
*Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		39.500 00
Dividends or other profits due policyholders		20.886 47
Dividends declared on or apportioned to annual dividend policies payable to policyholders during 1912		23.060 64
Dividends declared on or apportioned to deferred dividend policies payable to policyholders during 1912		54.612 48
†Amounts set apart, apportioned, provisionally ascertained, calculated, declared or held awaiting apportionment upon deferred dividend policies		1.711.272 64
Amount to provide for any possible depreciation or other liability		25.000 00
Paid-up capital		100.000 00
Unassigned funds (surplus)		488.214 03
Total liabilities		$21,982.853 54

PREMIUM NOTE ACCOUNT.

On hand December 31, 1910	$218.851 76	
Received during the year on new policies	40.677 13	
Received during the year on old policies	350.353 21	
Restored by revival of policies	6.011 06	
		$615.893 16
Deductions during the year as follows:		
Used in payment of losses and claims	$8.799 54	
Used in purchase of surrendered policies	4.668 75	
Voided by lapse	19.238 03	
Used in payment of dividends to policyholders	400 22	
Redeemed by maker in cash	366.613 52	
Total reduction of premium note account		399.720 06
Balance note assets at end of the year		$216.173 10

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*This amount not being a debt or liability, as we are advised by counsel, should not be deducted from the unassigned funds (surplus).

†Provisionally ascertained and calculated, but not a liability in this company.

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.	Number.	Amount.
Policies in force December 31, 1910			33,923	$68,432,976 00
Policies issued, revived, changed and increased during the year			2,255	6,362,308 00
Totals			36,178	$74,795,284 00
Deduct policies which have ceased to be in force during the year:				
By death	528	$1,346,227 00		
By maturity	39	73,981 00		
By expiry	86	386,053 00		
By surrender	740	1,504,331 00		
By lapse	857	2,161,916 00		
By decrease	----	692,181 00		
Totals			2,250	6,164,689 00
Total policies in force at end of year 1911			33,928	$68,630,595 00
Reinsured			108	$1,336,150 00

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	1,011	$2,235,878 00
Policies issued during the year	76	192,642 00
Totals	1,087	$2,428,520 00
Deduct policies ceased to be in force	81	206,578 00
Policies in force December 31, 1911	1,006	$2,221,942 00
Losses and claims incurred during the year	23	$76,478 00
Losses and claims settled during the year	21	61,928 00
Losses and claims unpaid December 31, 1911	2	$14,550 00
Premiums received		77,008 17

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus.
Loading on actual premiums of the year (averaging 21.95 per cent of the gross premiums)	$484,975 71		
Insurance expenses incurred during the year	523,650 84		
Loss from loading		---- ----	$38,675 13
Interest earned during the year	$1,042,245 10		
Investment expenses incurred during the year	203,537 62		
Net income from investments	$838,707 48		
Interest required to maintain reserve	725,999 00		
Gain from interest		$112,708 48	
Expected mortality on net amount at risk	$796,210 00		
Actual mortality on net amount at risk	680,509 41		
Gain from mortality		115,700 59	
Expected disbursements to annuitants	$7,000 00		
Net actual annuity claims incurred	77 58		
Gain from annuities		6,922 42	

		Gain in surplus.	Loss in surplus.
Total gain during the year from surrendered and lapsed policies		58,619 00	
Dividends paid stockholders			16,000 00
Decrease in surplus on dividend account			292,341 90
Net to profit account		14,617 35	
Investment Exhibit.			
Total losses from real estate			269 66
Total gains from stocks and bonds		9,959 57	
Loss from assets not admitted			6,466 44
Loss unaccounted for			174 62
Total gains and losses in surplus during the year		$318,527 41	$353,927 75
Surplus December 31, 1910, if estimated state and federal taxes taken as liability	$523,614 37		
Surplus December 31, 1911, if estimated state and federal taxes taken as liability	488,214 03		
Decrease in surplus (enter in column to balance)		35,400 34	
Totals		$353,927 75	$353,927 75

MASSACHUSETTS MUTUAL LIFE INSURANCE COMPANY.

No. 500 Main street, Springfield, Massachusetts.

(Incorporated May 15, 1851.)

WM. W. McCLENCH, President. WHEELER H. HALL, Secretary.

Agent for service in California: WM. J. BELL, San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year		$58,124,366 96

INCOME.

First year's premiums on original policies, less reinsurance	$1,123,836 40	
Dividends applied to purchase paid-up additions and annuities	99,024 70	
Consideration for supplementary contracts involving life contingencies	2,970 00	
Total new premiums		$1,225,931 10
Renewal premiums less reinsurance	$7,136,330 87	
Dividends applied to pay renewal premiums	1,204,727 00	
Total renewal premiums		8,341,057 87
Total premium income		$9,566,888 97
Consideration for supplementary contracts not involving life contingencies		125,270 10
Dividends left with the company to accumulate at interest		213,707 80
Interest on mortgage loans	$1,056,376 66	
Interest on bonds and dividends on stocks	1,159,727 83	
Interest on premium notes, policy loans or liens	523,056 14	
Interest on deposits	19,304 86	
Interest on other debts due the company	3,558 00	
Discount on claims paid in advance	615 64	
Rents, including $40,000 for company's occupancy of its own buildings	73,777 27	
Total interest and rents		2,836,416 40

From other sources:		
Commissions on mortgage loans in excess of loan agency expenses	$8,339 34	
*Protest fees	7 58	
*Sale of real estate per schedule Y	1,000 00	
*Sixth dividend Capital National Bank, Guthrie, Okla.	50	
*Foreclosure expenses previously charged off	306 18	
		$9,653 60
*Profit on sale or maturity of ledger assets		1,677 60
Increase in book value of ledger assets		11,519 84
Total income		$12,765,134 31
Total		$70,889,501 27

DISBURSEMENTS.

Death claims and additions	$2,578,350 04	
Matured endowments and additions	303,286 00	
Total death claims and endowments		$2,881,636 04
Premium notes and liens voided by lapse, less $24,593.19 restorations		33,630 77
Surrender values paid in cash, or applied in liquidation of loans or notes		925,673 73
Dividends paid policyholders in cash, or applied in liquidation of loans or notes		222,038 50
Dividends applied to pay renewal premiums		1,204,727 00
Dividends applied to purchase paid-up additions and annuities		99,024 70
Dividends left with the company to accumulate at interest		213,707 80
Total paid policyholders		$5,580,438 54
Expense of investigation and settlement of policy claims, including legal expenses		655 63
Supplementary contracts not involving life contingencies		74,704 83
Dividends with interest, held on deposit surrendered during the year		67,918 56
Commissions to agents		927,956 14
Compensation of managers and agents not paid by commissions on new business		20,145 00
Agency supervision and traveling expenses of supervisors		4,111 22
Branch office expenses		104,228 07
Medical examiners' fees and inspection of risks		86,920 81
Salaries and all other compensation of officers and home employees		251,112 36
Rent, including company's occupancy of its own buildings		92,422 50
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange		95,713 82
Legal expense		621 28
Furniture, fixtures and safes		15,773 23
Repairs and expenses (other than taxes) on real estate		26,070 45
Taxes on real estate		17,669 08
State taxes on premiums		109,212 43
Insurance department licenses and fees		13,436 97
All other licenses, fees and taxes		82,443 91
Other disbursements		24,457 98
Decrease in book value of ledger assets		100,055 48
Total disbursements		$7,696,068 29
Balance		$63,193,432 98

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*Profit and loss.

LEDGER ASSETS.

Book value of real estate	$1,031,000 00
Mortgage loans on real estate	23,916,038 60
Loans on company's policies assigned as collateral	8,615,378 30
Premium notes on policies in force	904,956 69
Book value of bonds and stocks (Schedule D)	28,079,988 36
Cash in office	1,211 60
Deposits in trust companies and banks not on interest	76,858 77
Deposits in trust companies and banks on interest	568,000 66
Total ledger assets	$63,193,432 98

Non-Ledger Assets.

Interest due and accrued on mortgages		$364,371 00	
Interest due and accrued on bonds		415,355 46	
Interest due and accrued on premium notes, policy loans or liens		171,921 62	
Interest due and accrued on other assets, bank deposits		284 50	
Rents due and accrued on company's property		166 66	
			952,099 24
	New business.	Renewals.	
Net uncollected and deferred premiums	$91,648 45	$1,040,230 00	
			1,131,878 45
Gross assets			$65,277,410 67

Deduct Assets Not Admitted.

Book value of ledger assets over market value: Bonds and stocks	546,768 36
Admitted assets	$64,730,642 31

LIABILITIES.

Net present value of outstanding policies: Actuaries, 4 per cent; and American, 3½ per cent; American, 3 per cent; computed by the company	$56,629,621 00	
Same for reversionary additions	952,417 00	
Same for annuities	36,117 00	
Total	$57,618,155 00	
Deduct net value of risks reinsured	773,537 00	
Net reserve		$56,844,618 00
Present value of supplementary contracts not involving life congencies		521,893 37
Death losses in process of adjustment	$5,000 00	
Death losses incurred for which no proofs have been received	168,367 00	
Matured endowments due and unpaid	247 00	
Death losses and other policy claims resisted	10,455 14	
Total policy claims		184,069 14
Dividends left with the company to accumulate interest		1,003,911 07
Premiums paid in advance, including surrender values so applied		52,091 01
Unearned interest and rent paid in advance		560 83
Salaries, rents, office expenses, bills and accounts due or accrued		15,063 20
Medical examiners' and legal fees due or accrued		19,618 50
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		178,772 73
Dividends or other profits due policyholders		86,107 29
Dividends declared on or apportioned to annual dividend policies payable to policyholders during 1912		795,899 46
Reserved for death losses of 1911, notice of which were received in 1912 prior to the completion of this statement		7,046 04
Unassigned funds (surplus)		5,020,991 67
Total liabilities		$64,730,642 31

PREMIUM NOTE ACCOUNT.

On hand December 31, 1910	$869,754 07	
Received during the year on old policies	262,505 24	
Restored by revival of policies	24,593 19	
		$1,156,852 50
Deductions during the year as follows:		
Used in payment of losses and claims	$31,782 57	
Used in purchase of surrendered policies	18,312 85	
Voided by lapse	58,223 96	
Used in payment of dividends to policyholders	85,926 08	
Redeemed by maker in cash	57,650 35	
Total reduction of premium note account		251,895 81
Balance note assets at end of the year		$904,956 69

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.	Number.	Amount.
Policies in force December 31, 1910			115,866	$262,497,238 00
Policies issued, revived, changed and increased during the year			14,245	36,234,265 00
Totals			130,111	$298,731,503 00
Deduct policies which have ceased to be in force during the year:				
By death	983	$2,596,631 00		
By maturity	151	300,960 00		
By expiry	71	264,848 00		
By surrender	1,691	4,958,180 00		
By lapse	2,439	5,342,921 00		
By decrease	----	1,607,693 00		
Totals			5,335	$15,071,233 00
Total policies in force at end of year 1911			124,776	$283,660,270 00
Reinsured			223	$2,412,667 00

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	1,263	$2,719,727 00
Policies issued during the year	161	471,162 00
Totals	1,424	$3,190,889 00
Deduct policies ceased to be in force	62	190,009 00
Policies in force December 31, 1911	1,362	$3,000,880 00
Losses and claims unpaid December 31, 1910	2	$2,222 00
Losses and claims incurred during the year	37	94,279 00
Totals	39	$96,501 00
Losses and claims settled during the year	37	95,133 00
Losses and claims unpaid December 31, 1911	2	$1,368 00
Premiums received		$151,582 83

METROPOLITAN LIFE INSURANCE COMPANY.

No. 1 Madison avenue, New York City, N. Y.

(Incorporated June, 1866. Commenced business in California September, 1901),

JOHN R. HEGEMAN, President. JAS. S. ROBERTS, Secretary.

Agent for service in California: GEO. B. SCOTT, San Francisco.

CAPITAL.

Capital stock paid up in cash	$2,000,000 00	
Amount of ledger assets December 31st of previous year		$305,692,726 65

INCOME.

First year's premiums on original policies, less reinsurance	$5,036,404 33	
Surrender values to pay first year's premiums	202,091 88	
Dividends applied to purchase paid-up additions and annuities	177,570 29	
Consideration for original annuities involving life contingencies	47,797 27	
Total new premiums		$5,463,863 77
Renewal premiums less reinsurance	$23,919,007 56	
Dividends applied to pay renewal premiums	1,602,736 09	
Surrender values applied to pay renewal premiums	50,765 02	
Total renewal premiums		25,572,568 67
Total industrial premiums received including $3,886,449.04 applied to premiums: $1,577.61 to shorten premium paying period; $113,443.90 surrender values to payment of premiums		51,303,413 60
Total premium income		$82,339,846 04
Consideration for supplementary contracts not involving life contingencies		19,944 30
Ledger assets other than premiums from other companies assuming their risks		50,202 75
Interest on mortgage loans	$7,124,173 58	
Interest on bonds and dividends on stocks	6,119,735 47	
Interest on premium notes, policy loans or liens	659,508 47	
Interest on deposits	114,474 68	
Interest on other debts due the company	5,613 16	
Discount on claims paid in advance	117 18	
Rents, including company's occupancy of its own buildings	1,490,265 15	
Total interest and rents		15,513,887 69
Agents deposits, $38,651.13; tax refund, $141.00		38,792 13
Dividends suspended banks, $22.41; conscience money, $141.20		163 61
Suspense, unclaimed checks, etc.,		4,297 73
Fire insurance fund, $18,170.13; liquidation of unlisted assets, $6,000.00		24,170 13
Arrears from property previously sold, $99.67; deposit account bond and mortgage interest and rents, $9,510.16		9,609 83
Agents' balances previously charged off		6 07
Profit on sale or maturity of ledger assets		5,916 84
Increase in book value of ledger assets		128,436 59
Total income		$98,135,273 71
Total		$403,828,000 36

DISBURSEMENTS.

Death claims and additions	$22,895,365 93	
Matured endowments and additions	1,432,839 59	
Total death claims and endowments		$24,328,205 52
Annuities involving life contingencies		129,691 30
Premium notes and liens voided by lapse		33,938 58
Surrender values paid in cash, or applied in liquidation of loans or notes		2,333,399 71
Surrender values applied to pay new and renewal premiums: New, $202,091.88; renewal, $50,765.02; industrial $113,443.90		366,300 80
Dividends paid policyholders in cash, or applied in liquidation of loans or notes		73,999 14
Cash bonus on non-participating industrial policies		1,487,491 91
Dividends applied to pay renewal premiums		1,602,796 09
Bonus applied to pay renewal premiums on non-participating industrial policies		3,886,449 04
Dividends applied to shorten the endowment or premium-paying period industrial policies only		1,577 61
Dividends applied to purchase paid-up additions and annuities		177,570 29
Sick benefits on assumed policies		150 50
Total paid policyholders		$34,421,570 49
Expense of investigation and settlement of policy claims, including legal expenses		28,147 46
Supplementary contracts not involving life contingencies		11,877 61
Interest or dividends to stockholders		140,000 00
Commissions to agents		3,201,242 57
Commuted renewal commissions		500 00
Compensation of managers and agents not paid by commissions on new business		10,069 22
Compensation of industrial department to superintendents, assistants and agents		103,819 14
Agency supervision and traveling expenses of supervisors		103,819 14
Branch office expenses		797,221 39
Medical examiners' fees and inspection of risks		974,254 72
Salaries and all other compensation of officers and home employees		3,251,010 19
Rent, including company's occupancy of its own buildings		1,058,627 54
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange		556,884 19
Legal expense		41,626 43
Furniture, fixtures and safes		24,147 46
Repairs and expenses (other than taxes) on real estate		454,185 43
Taxes on real estate		252,363 99
State taxes on premiums		1,096,482 80
Insurance department licenses and fees		5,573 35
All other licenses, fees and taxes		96,330 42
Other disbursements: Expense of curative aid to sick industrial policyholders, $305,977.15; sick, disabled and inactive agents and clerks, $170,443.69; campaign against tuberculosis, $6,034.62; medical attention to home office employees, $567.00; metropolitan staff savings fund, $107,031.73; legislative expenses, etc., etc.		1,377,441 17
Loss on sale or maturity of ledger assets		534 74
Decrease in book value of ledger assets		818,270 29
Total disbursements		$60,025,695 77
Balance		$343,802,304 59

LEDGER ASSETS.

Book value of real estate	$23,746,237 24
Mortgage loans on real estate	146,343,953 89
Loans on company's policies assigned as collateral	15,793,628 01
Premium notes on policies in force	1,019,591 54
Book value of bonds and stocks (Schedule D)	152,433,093 29
Cash in office	79,139 52

Amount brought forward		$339,415,643 49
Deposits in trust companies and banks not on interest		49,609 77
Deposits in trust companies and banks on interest		3,984,645 34
Agents' balances		30,382 64
Cash in transit, $268,876.27; renting section inventory, $37,244.42; advanced to superintendents and assistants to facilitate payment of death claims, $15,125.00; fire insurance premium advanced secured, $297.30; Union Trust Co., Providence, R. I., contingent certificate, $480.36		322,023 35
Total ledger assets		$343,802,304 59

Non-Ledger Assets.

Interest due and accrued on mortgages	$1,870,013 40	
Interest due and accrued on bonds	2,143,413 77	
Interest due and accrued on premium notes, loans or liens	399,918 60	
Rents due and accrued on company's property	22,303 99	
		4,435,649 76

	New business.	Renewals.	
Net uncollected and deferred premiums	$806,488 78	$5,181,349 31	5,987,838 09
Industrial premiums due and unpaid, less loading			804,715 10
Installments on supplementary contracts due in 1912 paid in 1911			1,425 00
Gross assets			$355,031,932 54

Deduct Assets Not Admitted.

Agents' debit balances	$30,382 64	
Premium notes or loans on policies and net premiums in excess of value of their policies	274,951 20	
Bonds not subject to amortization	1,288,102 58	
Book value of ledger assets over market value, stocks	614,880 98	
Renting section inventory, $37,244.42; Union Trust Co., contingent certificate, $480.36	37,724 78	
Total		2,246,042 18
Admitted assets		$352,785,890 36

LIABILITIES.

Net present value of outstanding policies: Actuaries, 4 per cent; and American, 3½ per cent; American, 3 per cent; computed by the Insurance Department	$304,882,887 00	
Same for reversionary additions	728,970 00	
Same for annuities	947,825 00	
Total	$306,559,682 00	
Deduct net value of risks reinsured	117,617 00	
Net reserve		$306,442,065 00
Present value of supplementary contracts not involving life contingencies		128,715 00
Surrender values claimable on policies canceled		123,945 06
Death losses in process of adjustment	$182,926 98	
Death losses incurred for which no proofs have been received	370,508 27	
Matured endowments due and unpaid	17,476 00	
Death losses and other policy claims resisted	140,499 24	
Total policy claims		711,410 49
Due and unpaid on supplementary contracts not involving life contingencies		12,953 04
Premiums paid in advance, including surrender values so applied		1,604,698 52
Unearned interest and rent paid in advance		52,508 30
Commissions to agents due or accrued		30,315 40
Salaries, rents, office expenses, bills and accounts due or accrued		102,360 38

Medical examiners' and legal fees due or accrued	$194.273 34
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement	1.325.000 00
Dividends or other profits due policyholders	523.428 17
Dividends declared on or apportioned to annual dividend policies payable to policyholders during 1912	1.579.235 42
Dividends declared on or apportioned to deferred dividend policies payable to policyholders during 1912	16.808 81
Amounts set apart, apportioned, provisionally ascertained, calculated, declared or held awaiting apportionment upon deferred dividend policies	355.677 34
Bonus apportioned to non-participating industrial policies and payable in 1912	5.957.825 56
Unclaimed checks, etc., $22.630.84; deposit account bond and mortgage interest and rent, $23.215.91	45.846 75
Fire insurance funds	67.908 20
Agents' cash deposits in lieu of bonds	282.590 86
Other liabilities: To cover death claims of which the company had no knowledge, December 31st, $450.000.00; other possible items, $50.000.00	500.000 00
Special Trust Company deposit Exchange Building Co., mortgage loans	16.441 85
Paid-up capital	2.000.000 00
Unassigned funds (surplus)	30.711.882 87
Total liabilities	$352.785.890 36

PREMIUM NOTE ACCOUNT.

On hand December 31, 1910	$985.806 22	
Received during the year on old policies	122.268 37	
Restored by revival of policies		$1.108.074 59
Deductions during the year as follows:		
Used in payment of losses and claims	$26.089 48	
Used in purchase of surrendered policies	25.134 07	
Voided by lapse	33.938 58	
Used in payment of dividends to policyholders	34 59	
Redeemed by maker in cash	3.286 33	
Total reduction of premium note account		88.483 05
Balance note assets at end of the year		$1.019.591 54

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.	Number.	Amount.
Policies in force December 31, 1910			822.980	$703.252.264 00
Policies issued, revived, changed and increased during the year			183.149	182.785.079 00
Totals			1.006.129	$886.037.343 00
Deduct policies which have ceased to be in force during the year:				
By death	6.848	$5.593.135 00		
By maturity	1.974	1.234.338 00		
By expiry	536	792.497 00		
By surrender	32.608	24.390.008 00		
By lapse	57.412	50.079.096 00		
By decrease		931.908 00		
Totals			99.378	83.020.982 00
Total policies in force at end of year 1911			906.751	$803.016.361 00
Reinsured			35	$631.715 00

EXHIBIT OF POLICIES.

Industrial.

	Number.	Amount.
Policies in force December 31, 1910	10,465,074	$1.512.599,124 00
Policies issued, revived, changed and increased during the year	1,759,564	277,544,014 00
Totals	12,224,638	$1,790,143,138 00
Death policies which have ceased to be in force during the year:		

	Number.	Amount.
By death	147,470	$17,302,231 00
By maturity	2,673	198,502 00
By expiry	1,849	174,235 00
By surrender	52,680	8,537,235 00
By lapse	919,579	156,331,227 00
By decrease	-------	10,737,982 00

	Number.	Amount.
Totals	1,124,251	$193,281,412 00
Total policies in force at end of year 1911	11,100,387	$1,596,861,726 00

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	16,485	$15,093,824 00
Policies issued during the year	4,397	4,333,720 00
Totals	20,882	$19,427,544 00
Deduct policies ceased to be in force	1,544	1,360,582 00
Policies in force December 31, 1911	19,338	$18,066,962 00
Losses and claims unpaid December 31, 1910	6	$4,099 00
Losses and claims incurred during the year	160	122,320 00
Totals	166	$126,419 00
Losses and claims settled during the year	159	121,396 00
Losses and claims unpaid December 31, 1911	7	$5,023 00
Premiums received		$708,800 13

BUSINESS IN CALIFORNIA.

Industrial.

	Number.	Amount.
Policies in force December 31, 1910	183,372	$31,441,867 00
Policies issued during the year	37,929	6,368,509 00
Totals	221,301	$37,810,376 00
Deduct policies ceased to be in force	16,625	3,308,760 00
Policies in force December 31, 1911	204,676	$34,501,616 00
Losses and claims unpaid December 31, 1910	20	3,002 00
Losses and claims incurred during the year	2,021	276,639 48
Totals	2,041	$279,641 48
Losses and claims settled during the year	2,010	275,700 96
Losses and claims unpaid December 31, 1911	31	$3,940 52
Premiums received		$1,080,514 87

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus.
Loading on actual premiums of the year (averaging 31 33-100 per cent of the gross premiums)	$25,955,481 20		
Insurance expenses incurred during the year	23,415,246 81		
Gain from loading		$2,540,234 39	
Interest earned during the year	$16,121,997 46		
Investment expenses incurred during the year	1,004,372 40		
Net income from investments	$15,117,652 06		
Interest required to maintain reserve	11,341,095 61		
Gain from interest		37,776,529 45	
Expected mortality on net amount at risk	$19,736,072 00		
Actual mortality on net amount at risk	18,096,432 84		
Gain from mortality		1,639,639 16	
Expected disbursements to annuitants	$81,166 00		
Net actual annuity claims incurred	106,907 30		
Loss from annuities		------------	$25,741 30
Total gain during the year from surrendered and lapsed policies		3,260,713 31	
Dividends paid stockholders		------------	140,000 00
Decrease in surplus on dividend account		------------	7,259,405 39
Increase in special funds, and special reserve during the year		------------	41,669 45
Net to gain account		25,700 47	
Investment Exhibit.			
Total losses from real estate		------------	746,032 15
Total gains from stocks and bonds		5,916 84	
Total losses from stocks and bonds		------------	481,517 82
Gain from assets not admitted		5,636 41	
Loss from sick benefits on assumed policies		------------	150 50
Disbursements for health and welfare work		------------	481,517 82
Total gains and losses in surplus during the year		$11,254,370 03	$9,284,570 80
Surplus December 31, 1910	$28,742,083 64		
Surplus December 31, 1911	30,711,882 87		
Increase in surplus (enter in column to balance)		------------	1,969,799 23
Totals		$11,254,370 03	$11,254,370 03

MISSOURI STATE LIFE INSURANCE COMPANY.

Chemical Building, St. Louis, Missouri.

(Incorporated November 23, 1892. Commenced business in California August 23, 1910.)

EDMUND P. MELSON, President. H. V. DONNELLY, Asst. Secretary.

Agent for service in California: J. A. RILEY, Patton, California.

CAPITAL.

Capital stock paid up in cash	$300,000 00	
Amount of ledger assets December 31st of previous year		$2,481,736 78

INCOME.

First year's premiums on original policies, less reinsurance	$282,882 20	
Dividends applied to purchase paid-up additions and annuities	906 03	
Surrender values applied to purchase paid-up insurance and annuities	1,044 45	
Consideration for supplementary contracts involving life contingencies	629 99	
Total new premiums		$285,462 67
Renewal premiums less reinsurance	$766,012 26	
Dividends applied to pay renewal premiums	5,975 74	
Surrender values applied to pay renewal premiums	858 86	
Total renewal premiums		772,846 86
Total premium income		$1,058,309 53
Consideration for supplementary contracts not involving life contingencies		4,581 00
Dividends left with the company to accumulate at interest		1,102 89
Interest on mortgage loans	$126,821 30	
Interest on bonds and dividends on stocks	896 50	
Interest on premium notes, policy loans or liens	35,044 96	
Interest on deposits	4,006 47	
Interest on other debts due the company	4,727 33	
Total interest		171,496 56
Profit on investments		257 75
Premiums on accident riders to life policies		1,069 01
Premiums on health riders to life policies		1,174 67
Premiums on double indemnity riders to life policies		1,276 60
Policy loans and liens restored by revival of policies		7,519 35
Surrender of total disability benefit		517 80
Accident department, $16,692.17; sale of department, $6,000.00		22,692 17
Agents' balances previously charged off		143 73
Total income		$1,270,141 06
Total		$3,751,877 84

DISBURSEMENTS.

Death claims and additions	$250,450 37	
Matured endowments and additions	8,633 80	
Total death claims and endowments		$259,084 17
For claims under health and accident riders to life policies		519 08
Annuities involving life contingencies		378 20
Premium notes and liens voided by lapse, less $4,505.74 restorations and $475.37 paid but not restored		6,988 39
Surrender values paid in cash, or applied in liquidation of loans or notes		73,113 49
Surrender values applied to pay new and renewal premiums		858 86
Surrender values applied to purchase paid-up insurance and annuities		1,044 45
Dividends paid policyholders in cash, or applied in liquidation of loans or notes		2,121 39
Dividends applied to pay renewal premiums		5,975 74
Dividends applied to purchase paid-up additions and annuities		906 03
Left with the company to accumulate at interest		1,102 89
Total paid policyholders		$352,092 69
Expense of investigation and settlement of policy claims, including legal expenses		2,247 15
Supplementary contracts not involving life contingencies		370 95
Dividends with interest, held on deposit surrendered during the year		154 23
Interest or dividends to stockholders		30,000 00

Commissions to agents	$225,306 90
Commuted renewal commissions	1,876 90
Compensation of managers and agents not paid by commissions on new business	9,985 85
Agency supervision and traveling expenses of supervisors	7,289 11
Medical examiners' fees and inspection of risks	25,586 81
Salaries and all other compensation of officers and home employees	45,824 66
Rent, including company's occupancy of its own buildings	13,111 50
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange	17,922 95
Legal expense	1,343 10
Furniture, fixtures and safes	2,161 77
State taxes on premiums	11,522 79
Insurance department licenses and fees	4,713 22
All other licenses, fees and taxes	7,767 65
Investment expenses	1,069 04
Collection of premiums	1,094 37
Incidental office expense	1,425 84
Accident department	23,669 15
Agents' balances charged off	13,223 75
Total disbursements	$799,760 38
Balance	$2,952,117 46

LEDGER ASSETS.

Mortgage loans on real estate	$2,038,532 81
Loans on company's policies	650,384 40
Premium notes on policies in force	21,914 32
Book value of bonds and stocks	27,790 00
Cash in office	11,586 81
Deposits in trust companies and banks not on interest	570 00
Deposits in trust companies and banks on interest	144,933 36
Bills receivable	6,325 70
Agents' balances	50,080 06
Total ledger assets	$2,952,117 46

Non-Ledger Assets.

Interest due and accrued on mortgages		$96,724 24	
Interest due and accrued on bonds		362 50	
Interest due and accrued on premium notes, loans or liens		7,720 92	
Interest due and accrued on other assets		291 33	
			105,098 99
	New business.	Renewals.	
Net uncollected and deferred premiums	$1,254 21	$94,974 34	96,228 55
Office furniture, fixtures, safes, supplies, printed matter, etc.			10,000 00
Gross assets			$3,163,445 00

Deduct Assets Not Admitted.

Supplies, printed matter and stationery, furniture, fixtures and safes	$10,000 00	
Agents' debit balances	51,477 84	
Bills receivable	6,325 70	
Premium notes or loans on policies and net premiums in excess of their policies	10,519 16	
Total		78,322 70
Admitted assets		$3,085,122 30

LIABILITIES.

Net present value of outstanding policies: Actuaries, 4 per cent; and American, 3½ per cent; American, 3 per cent; computed by the company	$2,367,200 00	
Same for revisionary additions	28,812 00	
Same for annuities	2,418 55	
Total	$2,398,430 55	
Deduct net value of risks reinsured	11,090 00	
Total	$2,387,340 55	
Reserve to provide for health and accident benefits contained in life policies	4,302 83	
Net reserve		$2,391,643 38
Present value of supplementary contracts not involving life contingencies		10,129 70
Surrender values claimable on policies canceled		2,297 20
Death losses in process of adjustment	$13,985 00	
Death losses incurred for which no proofs have been received	10,000 00	
Matured endowments due and unpaid	600 00	
Death losses and other policy claims resisted	8,453 71	
Claims under health and accident riders to life policies	18 00	
Total policy claims		33,056 71
Dividends left with the company to accumulate at interest		1,426 42
Premiums paid in advance, including surrender values so applied		6,762 64
Unearned interest and rent paid in advance		9,216 51
Commissions due agents on premium notes, when paid		1,095 72
Salaries, rents, office expenses, bills and accounts due or accrued		1,781 53
Medical examiners' and legal fees due or accrued		1,462 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		12,782 26
Dividends or other profits due policyholders		3.476 15
Dividends decided on or apportioned to annual dividend policies payable to policyholders during 1912		678 60
Dividends declared on or apportioned to deferred dividend policies payable to policyholders during 1912		16,109 31
For occupations, extra premiums		640 91
Trust fund account trust fund dividend policies		3,051 45
Paid-up capital		300.000 00
Unassigned funds (surplus)		289.511 81
Total liabilities		$3.085.122 30

PREMIUM NOTE ACCOUNT.

On hand December 31, 1910	$16,431 23	
Received during the year on new policies	1,646 61	
Received during the year on old policies	66.559 44	
Restored by revival of policies	4.505 74	
		$89.143 02
Deductions during the year as follows:		
Used in purchase of surrendered policies	$1,487 42	
Voided by lapse	11.969 50	
Redeemed by maker in cash	53,771 78	
Total reduction of premium note account		62.228 70
Balance note assets at end of the year		$21.914 32

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.	Number.	Amount.
Policies in force December 31, 1910			16,230	$27,532,011 27
Policies issued, revived, changed and increased during the year			4,976	9,119,511 30
Totals			21,206	$36,651,522 57
Deduct policies which have ceased to be in force during the year:				
By death	132	$277,426 69		
By maturity	17	8,800 00		
By expiry	150	262,555 34		
By surrender	653	1,166,690 75		
By lapse	2,243	4,108,354 79		
By decrease	-----	217,063 25		
Totals			3,195	$6,040,890 82
Total policies in force at end of year 1911			18,011	$30,610,631 75
Reinsured			271	$993,099 00

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Policies issued during the year	39	$158,500 00
Deduct policies ceased to be in force	5	13,000 00
Policies in force December 31, 1911	34	$145,500 00
Premims received		$5,420 52

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus	Loss in surplus.
Loading on actual premiums of the year (averaging 29.13 per cent of the gross premiums)	$313,020 30		
Insurance expenses incurred during the year	375,838 56		
Loss from loading		------------	$62,818 26
Interest earned during the year	$183,570 88		
Investment expenses incurred during the year	7,861 36		
Net income from investments	$175,709 52		
Interest required to maintain reserve	83,510 68		
Gain from interest		$92,198 84	
Expected mortality on net amount at risk	$286,216 04		
Actual mortality on net amount at risk	219,250 40		
Gain from mortality		66,965 64	
Expected disbursements to annuitants	$479 29		
Net actual annuity claims incurred	63 73		
Gain from annuities		543 02	
Total gain during the year from surrendered and lapsed policies		10,221 62	
Dividends paid stockholders		------------	30,000 00
Decrease in surplus on dividend account		------------	28,544 24
Increase in special funds, and special reserves during the year		------------	5,789 47

Investment Exhibit.

		Gain in surplus.	Loss in surplus.
Gain on other investments:			
Mortgage loans		$257 75	
Loss from assets not admitted			$12,736 00
Gains from all other sources:			
Accident department		5,126 03	
From health and accident riders to life policies		2,366 40	
Loss unaccounted for			1,949 47
Total gains and losses in surplus during the year		$177,679 30	$141,837 44
Surplus December 31, 1910	$253,669 95		
Surplus December 31, 1911	289,511 81		
Increase in surplus (enter in column to balance)			35,841 86
Totals		$177,679 30	$177,679 30

MUTUAL BENEFIT LIFE INSURANCE COMPANY.

No. 750 Broad street, Newark, New Jersey.

(Incorporated January 31, 1845.)

FREDERICK FRELINGHUYSEN, President. J. WILLIAM JOHNSON, Secretary.

Agent for service in California: FLOYD E. DE GROAT, San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year		$132,878,349 14

INCOME.

First year's premiums on original policies, less reinsurance	$2,568,155 96	
Surrender values to pay first year's premiums	4,383 21	
Dividends applied to purchase paid-up additions and annuities	434,154 85	
Consideration for original annuities involving life contingencies	26,651 46	
Consideration for supplementary contracts involving life contingencies	788 40	
Total new premiums		$3,034,133 88
Renewal premiums less reinsurance	$15,375,739 85	
Dividends applied to pay renewal premiums	2,111,799 89	
Dividends applied to shorten the endowment or premium-paying period	376,011 63	
Surrender values applied to pay renewal premiums	12,536 23	
Renewal premiums for deferred annuities	13,057 53	
Total renewal premiums		17,889,145 13
Total premium income		$20,923,279 01
Consideration for supplementary contracts not involving life contingencies		418,749 27
Interest on mortgage loans	$3,253,787 57	
Interest on collateral loans	72,673 09	
Interest on bonds and dividends on stocks	1,442,940 96	
Interest on premium notes, policy loans or liens	1,466,488 35	
Interest on deposits	29,115 78	
Interest on other debts due the company, agents' accounts	1,098 39	
Discount on claims paid in advance	222 22	
Rents	97,749 44	
Total interest and rents		6,364,075 80

From other sources: Agents' over-remittances, $15,488.52; exchange of coupon bonds for registered bond of same issue, $1,725		$17,213 52
Profit on sale or maturity of ledger assets		13,012 44
Increase in book value of ledger assets		129,955 63
Total income		$27,866,285 67
Total		$160,744,634 81

DISBURSEMENTS.

Death claims and additions	$6,593,686 73	
Matured endowments and additions	1,480,037 67	
Total death claims and endowments		$8,073,724 40
Annuities involving life contingencies		165,096 35
Premium notes and liens voided by lapse		917 32
Surrender values paid in cash, or applied in liquidation of loans or notes		2,858,511 79
Surrender values applied to pay new and renewal premiums		16,919 44
Dividends paid policyholders in cash, or applied in liquidation of loans or notes		283,686 67
Dividends applied to pay renewal premiums		2,111,799 89
Dividends applied to shorten the endowment or premium-paying period		376,011 63
Dividends applied to purchase paid-up additions and annuities		434,154 85
Total paid policyholders		$14,320,822 34
Expense of investigation and settlement of policy claims, including legal expenses		734 38
Supplementary contracts not involving life contingencies		210,848 26
Commissions to agents		2,206,739 88
Compensation of managers and agents not paid by commissions on new business		1,066 50
Agency supervision and traveling expenses of supervisors		56,568 86
Agency expenses		16,178 80
Medical examiners' fees and inspection of risks		161,232 68
Salaries and all other compensation of officers and home employees		447,467 55
Rent, including company's occupancy of its own buildings		69,812 14
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange		106,112 94
Legal expense		56,179 66
Furniture, fixtures and safes		3,323 08
Repairs and expenses (other than taxes) on real estate		35,051 04
Taxes on real estate		50,403 55
State taxes on premiums		233,591 14
Insurance department licenses and fees		17,717 93
All other licenses, fees and taxes		236,667 62
Other disbursements		116,103 13
Loss on sale or maturity of ledger assets		12,122 10
Decrease in book value of ledger assets		246,810 78
Total disbursements		$18,605,554 36
Balance		$142,139,080 45

LEDGER ASSETS.

Book value of real estate	$2,877,819 03
Mortgage loans on real estate	69,299,675 11
Loans secured by collaterals (Schedule C)	2,250,000 00
Loans on company's policies assigned as collateral, or secured by terms of policies	19,986,155 20
Premium notes on policies in force	5,862,267 09
Book value of bonds and stocks (Schedule D)	40,396,340 71
Cash in office	4,003 35
Deposits in trust companies and banks not on interest	104,027 44
Deposits in trust companies and banks on interest	1,344,777 00
Agents' balances (debit, $18,997.46; credit, $4,981.94), net	14,015 52
Total ledger assets	$142,139,080 45

Amount brought forward			$142,139,080 45

Non-Ledger Assets.

	New business.	Renewals.	
Interest due and accrued on mortgages		$1,623,822 59	
Interest due and accrued on bonds		610,549 70	
Interest due and accrued on premium notes, loans or liens		755,247 95	
			2,989,620 24
Market value of bonds and stocks over book value			339,603 12
Net uncollected and deferred premiums	$189,368 42	$1,653,632 72	1,843,001 14
Gross assets			$147,311,304 95

Deduct Assets Not Admitted.

Agents' debit balances	18,997 46
Admitted assets	$147,292,307 49

LIABILITIES.

Net present value of outstanding policies: American, 3½ per cent; American, 3 per cent; computed by the New Jersey Insurance Department	$126,599,680 00	
Same for reversionary additions	4,942,922 00	
Same for annuities, McClintock, 3 per cent	1,961,834 00	
Net reserve		$133,504,436 00
Present value of supplementary contracts not involving life contingencies		1,833,775 15
Death losses in process of adjustment		191,873 62
Death losses incurred for which no proofs have been received (estimated)	$400,000 00	
Matured endowments due and unpaid	44,986 00	
Death losses and other policy claims resisted	21,000 00	
Total policy claims		$657,859 62
Premiums paid in advance, including surrender values so applied		62,024 17
Unearned interest and rent paid in advance		1,724 05
Commissions to agents due or accrued		7,661 27
Cost of collection on uncollected and deferred premiums in excess of loading		50,703 39
Salaries, rents, office expenses, bills and accounts due or accrued (estimated)		50,000 00
Medical examiners' and legal fees due or accrued		33,496 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		556,000 00
Dividends or other profits due policyholders		441,324 35
Dividends declared on or apportioned to annual dividend policies payable to policyholders during 1912		3,723,206 01
Reserve or surplus funds not otherwise included in liabilities: Contingency reserve funds, suspended mortality fund, $2,644,128.00; dividend equalization fund, $848,807.47; security fluctuation and real estate, depreciation fund, $2,815,308.03		6,308,243 50
Federal corporation tax in dispute		61,853 98
Total liabilities		$147,292,307 49

PREMIUM NOTE ACCOUNT.

On hand December 31, 1910	$5,662,061 00	
Received during the year on new policies	3,192 01	
Received during the year on old policies	1,024,894 02	
		$6,690,147 03
Deductions during the year as follows:		
Used in payment of losses and claims	$185,504 75	
Used in purchase of surrendered policies	304,654 70	
Voided by lapse	917 32	
Used in payment of dividends to policyholders	26,047 90	
Redeemed by maker in cash	310,755 27	
Total reduction of premium note account		827,879 94
Balance note assets at end of the year		$5,862,267 09

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.	Number.	Amount.
Policies in force December 31, 1910			228,591	$543,658,197 00
Policies issued, revived, changed and increased during the year			28,740	71,926,450 00
Totals			257,331	$615,584,647 00
Deduct policies which have ceased to be in force during the year:				
By death	2,413	$6,534,124 00		
By maturity	673	1,465,243 00		
By expiry	4,305	8,205,648 00		
By surrender	3,495	8,915,041 00		
By lapse	2,386	5,228,506 00		
By decrease	12	859,371 00		
Totals			13,284	31,207,933 00
Total policies in force at end of year 1911			244,047	$584,376,714 00

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	5,108	$14,656,111 00
Policies issued during the year	609	2,013,129 00
Totals	5,717	$16,669,240 00
Deduct policies ceased to be in force	269	729,963 00
Policies in force December 31, 1911	5,448	$15,939,277 00
Losses and claims incurred during the year	67	$158,559 00
Losses and claims settled during the year	65	155,959 00
Losses and claims unpaid December 31, 1911	2	$2,600 00
Premiums received		$609,373 95

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus.
Approximate loading on actual premiums of the year (averaging 19.24 per cent of the gross premiums)	$4,079,576 21		
Insurance expenses incurred during the year	3,648,225 40		
Gain from loading		$431,350 81	
Interest earned during the year	$6,766,048 10		
Investment expenses incurred during the year	314,605 73		
Net income from investments	$6,451,442 37		
Interest required to maintain reserve	4,693,867 92		
Gain from interest		1,757,574 45	
Expected mortality on net amount at risk	$6,224,786 14		
Actual mortality on net amount at risk	3,940,074 65		
Gain from mortality		2,284,711 49	
Expected disbursements to annuitants	$88,325 00		
Net actual annuity claims incurred	112,372 35		
Loss from annuities		------------	$24,047 35
Total gain during the year from surrendered and lapsed policies		181,607 35	
Decrease in surplus on dividend account		------------	3,723,206 01
Increase in special funds, and special reserves during the year		------------	3,901,581 57
Net to profit account		15,488 52	

Investment Exhibit.

	Gain in surplus.	Loss in surplus.
Total gains from real estate	$12,112 44	
Total losses from real estate	------------	$111,858 44
Total gains from stocks and bonds	130,855 63	
Total losses from stocks and bonds	------------	309,183 01
Loss on bond and mortgage property sold by trustee in bankruptcy	------------	12,977 82
Amounts received during year for exchange of coupon bonds for registered bonds of same issue	1,725 00	
Gain from assets not admitted	5,542 84	
Loss from all other sources by change in reserve basis	------------	2,170,894 00
Total gains and losses in surplus during the year	$4,820,968 53	$10,253,748 20
Surplus December 31, 1910 $5,432,779 67		
Decrease in surplus (enter in column to balance)	5,432,779 67	
Totals	$10,253,748 20	$10,253,748 20

THE MUTUAL LIFE INSURANCE COMPANY.

New York City, New York.

(Incorporated April 12, 1842. Commenced business in California about 1858.)

CHARLES A. PEABODY, President.

WILLIAM J. EASTON and WILLIAM FREDERICK DIX, Secretaries.

Agent for service in California: W. L. HATHAWAY, San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year		$552,954,502 11

INCOME.

First year's premiums on original policies, less reinsurance	$4,730,240 17	
Surrender values to pay first year's premiums	36,874 91	
Dividends applied to purchase paid-up additions and annuities	2,081,923 07	
Consideration for original annuities involving life contingencies	432,912 71	
Consideration for supplementary contracts involving life contingencies	1,412,481 36	
Total new premiums		$8,694,432 22
Renewal premiums less reinsurance	$43,541,505 19	
Dividends applied to pay renewal premiums	2,351,940 03	
Surrender values applied to pay renewal premiums	440,911 13	
Renewal premiums for deferred annuities	14,210 41	
Total renewal premiums		46,348,566 76
Total premium income		$55,042,998 98
Consideration for supplementary contracts not involving life contingencies		464,897 50
Dividends left with the company to accumulate at interest		74,286 72
Interest on mortgage loans	$6,625,695 43	
Interest on bonds and dividends on stocks	12,138,079 71	
Interest on premium notes, policy loans or liens	3,677,732 29	
Interest on deposits	136,468 52	
Interest on other debts due the company	135,809 49	
Rents, including $339,496.60 for company's occupancy of its own buildings	1,622,085 77	
Total interest and rents		24,335,871 21

Collections or deposits received for account of others, not paid out	$29,384 51	
Profit on fire loss settlement	1 69	
Cash over	67 18	
Policy fees	2,561 33	
Premium extension fees	26,080 08	
		$58,094 79
Agents' balances previously charged off		15,523 77
Profit on sale or maturity of ledger assets		3,994,940 37
Increase in book value of ledger assets		927,237 91
Total income		$84,913,851 25
Total		$637,868,353 36

DISBURSEMENTS.

Death claims and additions	$22,813,573 82	
Matured endowments and additions	7,185,370 95	
Total death claims and endowments		$29,998,944 77
Annuities involving life contingencies		2,662,966 84
Surrender values paid in cash, or applied in liquidation of loans or notes		10,281,033 45
Surrender values applied to pay new and renewal premiums		477,786 04
Dividends paid policyholders in cash, or applied in liquidation of loans or notes		9,123,707 91
Dividends applied to pay renewal premiums		2,351,940 03
Dividends applied to purchase paid-up additions and annuities		2,081,923 07
Left with the company to accumulate at interest		74,286 72
Total paid policyholders		$57,052,588 83
Expense of investigation and settlement of policy claims, including legal expenses		70,815 27
Supplementary contracts not involving life contingencies		289,366 58
Dividends with interest, held on deposit surrendered during the year		11,770 72
Commissions to agents		3,371,702 43
Compensation of managers and agents not paid by commissions on new business		176,077 71
Agency supervision and traveling expenses of supervisors		760,276 40
Branch office expenses		804,070 11
Medical examiners' fees and inspection of risks		378,025 57
Salaries and all other compensation of officers and homes employees		1,311,767 58
Rent, including company's occupancy of its own buildings		536,806 89
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange		462,776 42
Legal and legislative expense		36,601 66
Furniture, fixtures and safes		53,065 68
Repairs and expenses (other than taxes) on real estate		370,569 28
Taxes on real estate		358,060 51
State taxes on premiums		641,462 59
Insurance department licenses and fees		31,392 74
All other licenses, fees and taxes		94,781 77
Other disbursements		824,805 61
Agents' balances charged off		62,519 95
Loss on sale or maturity of ledger assets		103,753 10
Decrease in book value of ledger assets		585,079 73
Total disbursements		$68,388,137 13
Balance		$569,480,216 23

LEDGER ASSETS.

Book value of real estate	$23,657,975 90
Mortgage loans on real estate	139,649,737 05
Loans on company's policies assigned as collateral	76,048,489 89
Book value of bonds and stocks (schedule "D")	[1]327,090,727 05
Cash in offices	58,811 36
Cash in transit since received	23,000 00
Deposits in trust companies and banks not on interest	259,625 14
Deposits in trust companies and banks on interest	2,189,409 62
Advanced or deposited to pay policy claims	397,311 74
Agents' balances (debit $27,326.47; credit $0), net $27,326.47	27,326 47
Accounts collectible $40,561.66; supplies $26,136.60	66,698 26
Cash advanced to officers and employees for traveling, etc.	11,103 75
Total ledger assets	$569,480,216 23

Non-Ledger Assets.

Interest due and accrued on mortgages		$1,808,027 52	
[2]Interest due and accrued on bonds		4,110,613 72	
Interest due and accrued on premium notes, loans or liens		67,056 94	
Interest due and accrued on other assets		10,223 41	
Rents due and accrued on company's property		166,739 09	
			6,162,660 68
[3]Market value of bonds and stocks over book value			7,468,200 60
	New business.	Renewals.	
Net uncollected and deferred premiums	$223,749.38	$3,900,564.64	4,124,314 02
Gross assets			$587,235,391 53

Deduct Assets Not Admitted.

Supplies, printed matter and stationery	$26,136 60	
Agents' debit balances	27,326 47	
Cash advanced to or in hands of officers or agents	11,103 75	
Book value of ledger assets over market value: Accounts collectible	40,561 66	
Total		$105,128 48
Admitted assets		$587,130,263 05

LIABILITIES.

Net present value of outstanding policies: American, 3½ per cent; American, 3 per cent; computed by the State of New York Insurance Department	$429,521,986 00	
Same for reversionary additions	15,064,787 00	
Same for annuities	28,769,567 00	
Total	$473,356,340 00	
[4]Deduct net value of risks reinsured	73,532 00	
Net reserve (paid for basis)		$473,282,808 00
Present value of supplementary contracts not involving life contingencies		3,095,512 55
Surrender values claimable on policies canceled		91,728 82
Death losses due and unpaid	$452,278 13	
Death losses in process of adjustment	912,421 54	
Death losses incurred for which no proofs have been received	[5]1,997,278 79	
Matured endowments due and unpaid	216,975 33	
Death losses and other policy claims resisted	422,798 04	
Annuity claims, involving life contingencies, due and unpaid	158,739 39	
Total policy claims		4,160,491 22

Due and unpaid on supplementary contracts not involving life contingencies	$4,207 58
Dividends left with the company to accumulate at interest	147,550 83
Premiums paid in advance, including surrender values so applied	385,560 48
Unearned interest and rent paid in advance	1,490,324 96
Commissions to agents due or accrued	30,787 96
Salaries, rents, office expenses, bills and accounts due or accrued	13,507 02
Medical examiners' and legal fees due or accrued	2,814 99
Taxes due and accrued	144,371 48
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement	1,164,125 63
Dividends or other profits due policyholders	794,654 14
Dividends declared on or apportioned to annual dividend policies payable to policyholders during 1912	4,543,735 69
Dividends declared on or apportioned to deferred dividend policies payable to policyholders during 1912	10,602,950 03
Amounts set apart, apportioned, provisionally ascertained, calculated, declared or held awaiting apportionment upon deferred dividend policies	75,601,868 03
Fund for depreciation of securities and general contingencies	11,310,620 38
Deposits on account of pending insurance	97,127 25
Due sundry parties for collections made or deposits held for their account	165,516 01
Total liabilities	$587,130,263 05

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.	Number.	Amount
Policies in force December 31, 1910			654,683	$1,464,024,396 00
Policies issued, revived, changed and increased during the year			55,678	141,014,371 00
Totals			710,361	$1,605,038,767 00
Deduct policies which have ceased to be in force during the year:				
By death	7,890	$22,997,687 00		
By maturity	3,081	7,029,683 00		
By expiry	549	4,085,910 00		
By surrender	15,081	36,653,721 00		
By lapse	12,707	27,817,299 00		
By decrease		1,479,805 00		
Totals			39,308	100,064,105 00
Total policies in force at end of year 1911			671,053	$1,504,974,662 00
Reinsured			113	$4,483,145 00

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[1] Bonds entered at amortized book value in accordance with Section 18, New York insurance law, where applicable.

[2] Accrued interest includes $2,132,177.78 due January 1, 1912.

[3] Only excess value of bonds not subject to amortization included.

[4] The net value of risks reinsured in companies not transacting business in New York State amounting to $418,429.00 is not included in this item.

[5] Including $600,000.00 estimated amount of unreported death claims.

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount
Policies in force December 31, 1910	19,436	$47,665,068 00
Policies issued during the year	1,638	4,574,460 95
Totals	21,074	$52,239,528 95
Deduct policies ceased to be in force	927	2,789,924 95
Policies in force December 31, 1911	20,147	$49,449,604 00
Losses and claims unpaid December 31, 1910	15	$18,811 88
Losses and claims incurred during the year	358	983,904 15
Totals	373	$1,002,716 03
Losses and claims settled during the year	364	990,355 15
Losses and claims unpaid December 31, 1911	9	$12,360 88
Premiums received		$1,663,086 80

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus
Loading on actual premiums of the year (averaging 21.22 per cent of the gross premiums)	$11,750,960 22		
Insurance expenses incurred during the year	8,803,221 75		
Gain from loading		$2,947,738 47	
Interest earned during the year	$26,470,913 47		
Investment expenses incurred during the year	1,051,145 72		
Net income from investments	$25,419,767 75		
Interest required to maintain reserve	16,049,491 53		
Gain from interest		9,370,276 22	
Expected mortality on net amount at risk	$15,737,904 17		
Actual mortality on net amount at risk	12,116,360 19		
Gain from mortality		3,621,543 98	
Net expected disbursements to annuitants	$1,730,255 25		
Net actual annuity claims incurred	1,886,072 99		
Loss from annuities		------------	$155,817 74
Total gain during the year from surrendered and lapsed policies		1,196,201 00	
Dividends paid policyholders	$15,647,973 45		
Decrease in surplus on dividend account		------------	15,647,973 45
Increase in special funds, and special reserves during the year		------------	996,133 88
Net to gain account		44,234 05	

Investment Exhibit.

	Gain in surplus.	Loss in surplus
Total gains from real estate	693,048 47	
Total losses from real estate	------------	1,445,834 93
Total gains from stocks and bonds	3,950,117 96	
Total losses from stocks and bonds	------------	3,585,160 14
Gain from assets not admitted	7,669 99	
Total gains and losses in surplus during the year	$21,830,920 14	$21,830,920 14

NATIONAL LIFE INSURANCE COMPANY.

Montpelier, Vermont.

(Incorporated November 13, 1848. Commenced business in California, 1885.)

Joseph A. DeBoer, President. Osman D. Clark, Secretary.

Agent for service in California: F. A. Stolp, San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year		$48,792,634 20

INCOME.

First year's premiums on original policies, less reinsurance	$574,729 30	
Surrender values to pay first year's premiums	100 45	
Dividends applied to purchase paid-up additions and annuities	32,343 76	
Consideration for original annuities involving life contingencies	742,413 23	
Consideration for supplementary contracts involving life contingencies	4,737 26	
Total new premiums		$1,354,324 00
Renewal premiums less reinsurance	$4,962,319 46	
Dividends applied to pay renewal premiums	372,694 54	
Dividends applied to shorten the endowment or premium-paying period	11,188 75	
Surrender values applied to pay renewal premiums	19 45	
Renewal premiums for deferred annuities	1,841 70	
Total renewal premiums		5,348,063 90
Total premium income		$6,702,387 90
Consideration for supplementary contracts not involving life contingencies		59,667 41
Dividends left with the company to accumulate at interest		167 10
Interest on mortgage loans	$1,128,727 09	
Interest on bonds and dividends on stocks	738,119 60	
Interest on premium notes, policy loans or liens	466,970 09	
Interest on deposits	20,248 87	
Interest on other debts due the company	8,256 31	
Discount on claims paid in advance	109 38	
Rents, including $7,040 for company's occupancy of its own buildings	29,119 71	
Total interest and rents		2,391,551 05
Recovered on over loan policy 154,789		6 11
Agents' balances previously charged off		17,079 01
Profit on sale or maturity of ledger assets		2,214 18
Total income		$9,173,072 76
Total		$57,965,706 96

DISBURSEMENTS.

Death claims and additions	$1,580,405 07	
Matured endowments and additions	786,211 47	
Total death claims and endowments		$2,366,616 54
Annuities involving life contingencies		433,292 11
Surrender values paid in cash, or applied in liquidation of loans or notes		1,216,574 75
Surrender values applied to pay new and renewal premiums		119 90
Dividends paid policyholders in cash, or applied in liquidation of loans or notes		462,344 92

Amount brought forward	$4.478,948 22
Dividends applied to pay renewal premiums	372,694 54
Dividends applied to shorten the endowment or premium-paying period	11,188 75
Dividends applied to purchase paid-up additions and annuities	32,343 76
Left with the company to accumulate at interest	167 10
Total paid policyholders	$4.895.342 37
Expense of investigation and settlement of policy claims, including legal expenses	243 89
Supplementary contracts not involving life contingencies	19,752 32
Dividends with interest, held on deposit surrendered during the year	131 71
Commissions to agents	642,509 56
Compensation of managers and agents not paid by commissions on new business	1,878 45
Agency supervision and traveling expenses of supervisors	12.010 00
Branch office expenses	82,416 43
Medical examiners' fees and inspection of risks	46.556 06
Salaries and all other compensation of officers and home employees	156,103 12
Rent, including company's occupancy of its own buildings	50,907 64
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange	59,689 62
Legal expense	536 80
Furniture, fixtures and safes	9,891 29
Repairs and expenses (other than taxes) on real estate	11,295 00
Taxes on real estate	6,274 22
State taxes on premiums	106,916 32
Insurance department licenses and fees	6,287 39
All other licenses, fees and taxes	71,593 46
Home office supplies	13,388 89
Home office travel	450 37
Investment expense	41,105 09
Over loan policy No. 178,083, $15.98; policy No. 154,789, $21.53	37 51
Agents' balances charged off	9,007 13
Loss on sale or maturity of ledger assets	7,577 50
Decrease in book value of ledger assets	41,065 08
Total disbursements	$6,292,967 22
Balance	$51,672,739 74

LEDGER ASSETS.

Book value of real estate	$275,000 00
Mortgage loans on real estate	23.659,271 29
Loans on company's policies assigned as collateral	6,336,891 57
Premium notes on policies in force	1,843,540 96
Book value of bonds	18,475,796 84
Cash in office	1,597 90
Deposits in trust companies and banks not on interest	20,000 00
Deposits in trust companies and banks on interest	1,060,044 01
Agents' balances (net)	597 17
Total ledger assets	$51,672,739 74

Non-Ledger Assets.

Interest due and accrued on mortgages		$598,480 63	
Interest due and accrued on bonds		279,690 38	
Interest due and accrued on premium notes, loans or liens		268,630 97	
Interest due and accrued on other assets		1,491 00	
Rents due and accrued on company's property		406 12	
			1,148,699 10
	New business.	Renewals.	
Net uncollected and deferred premiums	$45,284 84	$669,549 13	714,833 97
Gross assets			$53,536,272 81

Amount brought forward		$53,536,272 81

Deduct Assets Not Admitted.

Agents' debit balances	$1,887 75	
Premium notes or loans on policies and net premiums in excess of value of their policies	175 00	
Book value of ledger assets over market value: Bonds	90,983 00	
Total		$93,045 75
Admitted assets		$53,443,227 06

LIABILITIES.

Net present value of outstanding policies: Actuaries, 4 per cent; and American, 3½ per cent; American, 3 per cent; computed by the actuary	$40,307,018 00	
Same for revisionary additions	150,468 00	
Same for annuities	4,623,457 00	
Net reserve		$45,080,943 00
Present value of supplementary contracts not involving life contingencies		171,870 00
Surrender values claimable on policies canceled		4,148 35
Death losses in process of adjustment	$14,650 00	
Death losses incurred for which no proofs have been received	34,114 00	
Matured endowments due and unpaid	8,583 00	
Death losses and other policy claims resisted	18,660 00	
Annuity claims, involving life contingencies, due and unpaid	27,030 97	
Total policy claims		103,037 97
Dividends left with the company to accumulate at interest		293 73
Premiums paid in advance, including surrender value so applied		9,851 59
Unearned interest and rent paid in advance		595 21
Commissions to agents due or accrued		74 27
Cost of collection on uncollected and deferred premiums in excess of loading		11,557 93
Salaries, rents, office expenses, bills and accounts due or accrued		20,000 00
Medical examiners' and legal fees due or accrued		3,411 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		172,644 19
Dividends or other profits due policyholders		65,449 92
Dividends declared on or apportioned to annual dividend policies payable to policyholders during 1912		523,214 03
Dividends declared on or apportioned to deferred dividend policies payable to policyholders during 1912		471,757 78
Amounts set apart, apportioned, provisionally ascertained, calculated, declared or held awaiting apportionment upon deferred dividend policies		4,232,628 65
Reserve or surplus funds not otherwise included in liabilities, extra life rate endowment reserve		179,823 55
Surplus set apart for payment at termination of insurance		11,363 01
Other liabilities: Real estate taxes accrued, $1,871.05; estimated death claims not reported, $50,000		51,871 05
Unassigned funds (surplus)		2,328,691 83
Total liabilities		$53,443,227 06

PREMIUM NOTE ACCOUNT.

On hand December 31, 1910	$1,804,672 83	
Received during the year on old policies	380,291 41	
		$2,184,964 24
Deductions during the year as follows:		
Used in payment of losses and claims	$44,262 30	
Used in purchase of surrendered policies	164,875 08	
Used in payment of dividends to policyholders	694 44	
Redeemed by maker in cash	131,591 46	
Total reduction of premium note account		341,423 28
Balance note assets at end of the year		$1,843,540 96

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.	Number.	Amount.
Policies in force December 31, 1910			85,174	$167,261,226 00
Policies issued, revived, changed and increased during the year			8,137	18,074,902 00
Totals			93,311	$185,336,128 00
Deduct policies which have ceased to be in force during the year:				
By death	703	$1,584,587 00		
By maturity	412	791,337 00		
By expiry	768	1,463,794 00		
By surrender	1,628	3,910,870 00		
By lapse	1,699	3,523,880 00		
By decrease	505	1,383,005 00		
Totals			5,715	12,657,473 00
Total policies in force at end of year 1911			87,596	$172,678,655 00

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	2,074	$4,863,725 33
Policies issued during the year	175	504,719 46
Totals	2,249	$5,368,444 79
Deduct policies ceased to be in force	121	304,575 30
Policies in force December 31, 1911	2,128	$5,063,869 49
Losses and claims unpaid December 31, 1910	1	150 00
Losses and claims incurred during the year	41	88,832 00
Totals	42	$88,982 00
Losses and claims settled during the year	39	86,832 00
Losses and claims unpaid December 31, 1911	3	$2,150 00
Premiums received		$163,339 10

NATIONAL LIFE INSURANCE COMPANY OF U. S. A.

Chicago, Illinois.

(Incorporated July 25, 1868. Commenced business in California August 1, 1868.)

(Reincorporated under the laws of Illinois March 3, 1904.)

ALBERT M. JOHNSON, President. ROBERT D. LAY, Secretary.

Agent for service in California: J. J. HARRIS, San Francisco.

CAPITAL.

Capital stock paid up in cash	$500,000 00	
Amount of ledger assets December 31st of previous year		$9,773,742 08

INCOME.

First year's premiums on original policies, less reinsurance	$273,044 01
Dividends applied to purchase paid-up additions and annuities	935 36

Surrender values applied to purchase paid-up insurance and annuities	$17,633 79	
Consideration for original annuities involving life contingencies	126,740 00	
Total new premiums		$418,353 16
Renewal premiums less reinsurance	$1,447,325 97	
Dividends applied to pay renewal premiums	3,243 40	
Total renewal premiums		1,450,569 37
Total premium income		$1,868,922 53
Consideration for supplementary contracts not involving life contingencies		6,687 00
Interest on mortgage loans	$114,548 50	
Interest on collateral loans	5,359 18	
Interest on bonds and dividends on stocks	251,822 52	
Interest on premium notes, policy loans or liens	80,423 68	
Interest on deposits	25,640 01	
Interest on other debts due the company	735 03	
Total interest		478,528 92
From other sources		7,707 92
Agents' balances previously charged off		10,530 48
Profit on sale or maturity of ledger assets		21,075 24
Total income, life department		$2,393,452 09
Income casualty department		3,353 65
Total income		$2,396,805 74
Total		$12,170,547 82

DISBURSEMENTS.

Death claims and additions	$384,844 01	
Matured endowments and additions	1,362,659 00	
Total death claims and endowments		$1,747,503 01
Annuities involving life contingencies		11,579 79
Premium notes and liens voided by lapse less $298.42 restorations		3,462 61
Surrender values paid in cash, or applied in liquidation of loans or notes		194,199 20
Surrender values applied to purchase paid-up insurance and annuities		17,633 79
Dividends paid policyholders in cash, or applied in liquidation of loans or notes		137,936 22
Dividends applied to pay renewal premiums		3,243 40
Dividends applied to purchase paid-up additions and annuities		935 36
Total paid policyholders		$2,116,493 38
Expense of investigation and settlement of policy claims, including legal expenses		4,835 52
Supplementary contracts not involving life contingencies		11,094 34
Interest or dividends to stockholders		50,000 00
Commissions to agents		230,622 59
Compensation of managers and agents not paid by commissions on new business		17,835 36
Branch office expenses		32,134 15
Medical examiners' fees and inspection of risks		21,954 29
Salaries and all other compensation of officers and home employees		118,067 83
Rent, including company's occupancy of its own buildings		17,400 00
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange		18,534 74
Legal expense		17,186 81
Furniture, fixtures and safes		5,886 92
State taxes on premiums		22,889 10
Insurance department licenses and fees		5,451 74
All other licenses, fees and taxes		1,331 42

Amount brought forward	$2,691,718 19
Other disbursements: Investment expense, $6,878.33; taxes, personal property, $1,392.00; Association Life Ins. Press, $817.60; miscellaneous expense, $5,358.98; profit and loss, $244.09	14,691 00
Agents' balances charged off	85,620 81
Total disbursements, life department	$2,792,030 00
Disbursements, casualty department	21,349 08
Total disbursements	$2,813,379 08
Balance	$9,357,168 74

LEDGER ASSETS.

Mortgage loans on real estate	$1,779,203 00
Loans secured by collaterals (Schedule C)	150,000 00
Loans on company's policies assigned as collateral	1,103,136 65
Premium notes on policies in force	132,545 47
Book value of bonds and stocks (Schedule D)	5,311,467 96
Cash in office	19,859 67
Deposits in trust companies and banks on interest	801,239 06
Agents' balances	58,755 41
Casualty department	961 52
Gross assets	$9,690,169 02

Non-Ledger Assets.

Interest due and accrued on mortgages		$33,574 56	
Interest due and accrued on bonds		17,845 13	
Interest due and accrued on collateral loans		1,421 26	
Interest due and accrued on premium notes, loans or liens		4,256 52	
Interest due and accrued on other assets		2,518 33	
			59,615 80
Market value of bonds and stocks over book value			128,032 10
	New business.	Renewals.	
Net uncollected and deferred premiums	$18,593 64	$126,758 74	145,352 38
Gross assets			$9,690,169 02

Deduct Assets Not Admitted.

Agents' debit balances	$59,759 56	
Premium notes or loans on policies and net premiums in excess of value of their policies	13,000 54	
Casualty department	1,073 17	
Total		73,833 27
Admitted assets		$9,616,335 75

LIABILITIES.

Net present value of outstanding policies: Actuaries, 4 per cent; and American, $3\frac{1}{2}$ per cent; computed by the company	$7,936,388 34	
Same for reversionary additions	1,458 00	
Same for annuities	127,440 00	
Total	$8,065,286 34	
Deduct net value of risks reinsured	31,312 00	
Net reserve		$8,033,974 34
Present value of supplementary contracts not involving life contingencies		38,574 90
Death losses in process of adjustment	$147 00	
Death losses incurred for which no proofs have been received	13,593 00	
Matured endowments due and unpaid	13,800 00	
Death losses and other policy claims resisted	1,370 70	
Annuity claims, involving life contingencies, due and unpaid	2,132 72	
Total policy claims		31,043 42

Premiums paid in advance, including surrender values so applied	$17,731 59
Unearned interest and rent paid in advance	26,244 81
Commissions due agents on premium notes, when paid	796 96
Commissions to agents due or accrued	1,245 65
Cost of collection on uncollected and deferred premiums in excess of loading	593 49
Salaries, rents, office expenses, bills and acounts due or accrued	3,000 00
Medical examiners' and legal fees due or accrued	1,394 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement	58,653 88
Dividends or other profits due policyholders	1,521 51
Dividends declared on or apportioned to annual dividend policies payable to policyholders during 1912	5,424 87
Dividends declared on or apportioned to deferred dividend policies payable to policyholders during 1912	151,859 45
Amounts set apart, apportioned, provisionally ascertained, calculated, declared or held awaiting apportionment upon deferred dividend policies	459,572 25
Casualty department liabilities	378 65
Total	$8,832,009 77
Paid-up capital	500,000 00
Unassigned funds (surplus)	284,325 98
Total liabilities	$9,616,335 75

PREMIUM NOTE ACCOUNT.

On hand December 31, 1910	$119,256 64	
Received during the year on old policies	188,655 97	
Restored by revival of policies	4,379 92	
		$312,291 53
Deductions during the year as follows:		
Used in payment of losses and claims	$1,650 01	
Used in purchase of surrendered policies	22,342 95	
Voided by lapse	3,761 03	
Redeemed by maker in cash	151,992 07	
Total reduction of premium note account		179,746 06
Balance note assets at end of the year		$132,545 47

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.	Number.	Amount.
Policies in force December 31, 1910			34,042	$44,985,035 02
Policies issued, revived, changed and increased during the year			4,135	8,349,259 70
Totals			38,177	$53,334,294 72
Deduct policies which have ceased to be in force during the year:				
By death	298	$399,674 16		
By maturity	2,381	1,377,650 13		
By expiry	1,639	2,731,066 57		
By surrender	322	479,070 04		
By lapse	871	1,775,095 35		
By decrease	----	208,692 65		
Totals			5,511	6,971,248 90
Total policies in force at end of year 1911			32,666	$46,363,045 82
Reinsured			96	$685,221 45

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	556	$1,435,888 73
Policies issued during the year	380	1,026,029 03
Totals	936	$2,461,917 76
Deduct policies ceased to be in force	150	511,454 33
Policies in force December 31, 1911	786	$1,950.463 43
Losses and claims unpaid December 31, 1910	1	$1,000 00
Losses and claims incurred during the year	10	10,503 00
Totals	11	$11,503 00
Losses and claims settled during the year	10	10,934 00
Losses and claims unpaid December 31, 1910	1	$569 00
Premiums received		$74.544 94

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus.
Loading on actual premiums of the year (averaging 22.45 per cent of the gross premiums)	$420,083 90		
Insurance expenses incurred during the year	489,301 44		
Loss from loading			$69,217 54
Interest earned during the year	$478,435 50		
Investment expenses incurred during during the year	47,080 73		
Net income from investments	$431,354 77		
Interest required to maintain reserve	314,405 99		
Gain from interest		$116,948 78	
Expected mortality on net amount at risk	$460,507 36		
Actual mortality on net amount at risk	296,969 71		
Gain from mortality		163,537 65	
Expected disbursements to annuitants	$9,866 84		
Net actual annuity claims incurred	11,566 32		
Loss from annuities			1,699 48
Total gain during the year from surrendered and lapsed policies		20,479 25	
Dividends paid stockholders			50,000 00
Decrease in surplus on dividend account			173,516 65
Net to profit account		7,463 83	

Investment Exhibit.

		Gain in surplus.	Loss in surplus.
Total gains from real estate		9,683 04	
Total losses from real estate			9,683 04
Total gains from stocks and bonds		70,076 20	
Total losses from stocks and bonds			36,640 20
Gains from assets not admitted		74,345 69	
Agents balances charged off			75,090 33
Casualty department			18,374 08
Gain unaccounted for		5,490 01	
Total gains and losses in surplus during the year		$468,024 45	$434,221 32
Surplus December 31, 1910	$250,522 85		
Surplus December 31, 1911	284,325 98		
Increase in surplus (enter in column to balance)			33,803 13
Totals		$468,024 45	$468,024 45

NEW ENGLAND MUTUAL LIFE INSURANCE COMPANY.

Boston, Massachusetts.

(Incorporated April 1, 1835. Commenced business in California, 1867.)

ALFRED D. FOSTER, President. J. A. BARBEY, Secretary.

Agent for service in California: CHAS. K. FIELD, San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year		$52,536,239 28

INCOME.

First year's premiums on original policies, less reinsurance	$920,484 29	
Dividends applied to purchase paid-up additions	156,156 95	
Surrender values applied to purchase paid-up insurance	3,412 00	
Consideration for supplementary contracts involving life contingencies	8,528 71	
Total new premiums		$1,088,581 95
Renewal premiums less reinsurance	$5,753,050 63	
Dividends applied to pay renewal premiums	1,005,173 67	
Total renewal premiums		6,758,224 30
Total premium income		$7,846,806 25
Consideration for supplementary contracts not involving life contingencies		22,236 00
Dividends left with the company to accumulate at interest		1,623 15
Interest on mortgage loans	$536,380 22	
Interest on collateral loans	28,090 73	
Interest on bonds and dividends on stocks	1,347,706 34	
Interest on premium notes, policy loans or liens	387,490 57	
Interest on deposits	18,036 70	
Discount on claims paid in advance	67 50	
Rents, including $44,380 for company's occupancy of its own buildings	143,898 49	
Total interest and rents		2,461,670 55
Profit on sale or maturity of ledger assets		383,721 16
Increase in book value of ledger assets		1 30
Total income		$10,716,058 41
Total		$63,252,297 69

DISBURSEMENTS.

Death claims and additions	$2,502,680 80	
Matured endowments and additions	519,457 00	
Total death claims and endowments		$3,022,137 80
Premium notes and liens voided by lapse, $16,293.66; less $1,546.80 restorations and $2,135.32 dividends and interest		12,611 54
Surrender values paid in cash, or applied in liquidation of loans or notes		734,471 82
Surrender values applied to purchase paid-up insurance		3,412 00
Dividends paid policyholders in cash, or applied in liquidation of loans or notes		145,024 40
Dividends applied to pay renewal premiums		1,005,173 67
Dividends applied to purchase paid-up additions		156,156 95
Left with the company to accumulate at interest		1,623 15
Total paid policyholders		$5,080,611 33

Amount brought forward	$5.080.611 33
Expense of investigation and settlement of policy claims, including legal expenses	20 05
Supplementary contracts not involving life contingencies	13,161 00
Dividends with interest, held on deposit surrendered during the year	1.152 20
Paid for claims on supplementary contracts involving life contingencies	14,530 00
Commissions to agents	786,622 88
Agency supervision and traveling expenses of supervisors	8,070 87
Branch office expenses	131,740 86
Medical examiners' fees and inspection of risks	83,440 20
Salaries and all other compensation of officers and home employees	221,729 17
Rent, including company's occupancy of its own buildings	49.375 76
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange	60,405 82
Legal expense	709 20
Furniture, fixtures and safes	10,931 90
Repairs and expenses (other than taxes) on real estate	55,227 26
Taxes on real estate	37,737 73
State taxes on premiums, $68,758.43 ; tax on reserve, $51,538.96	120,297 39
Insurance department licenses and fees	14,228 30
Federal corporation tax	15,740 98
Personal property tax, $519.99 ; compulsory advertising, $770.59	1,290 58
Other disbursements: Legislative expense, $911.67 ; mortgage expense, $3,347.82 ; Association of Life Insurance Presidents, $2,157.93 ; miscellaneous expense, $8.520.97 ; office supplies, $6,996.97	21,935 36
Profit and loss	182 00
Loss on sale or maturity of ledger assets	1,118 00
Decrease in book value of ledger assets	70,303 12
Total disbursements	$6,800.561 96
Balance	$56.451.735 73

LEDGER ASSETS.

Book value of real estate	$1,943.609 47
Mortgage loans on real estate	11,862.700 00
Loans secured by collaterals	450.000 00
Loans on company's policies assigned as collateral	7.166.736 09
Premium notes on policies in force	730.832 82
Book value of bonds and stocks	33.625.727 00
Cash in office	43 48
Deposits in trust companies and banks on interest	672.086 87
Total ledger assets	$56.451.735 73

Non-Ledger Assets.

	New business.	Renewals.	
Interest due and accrued on mortgages		$101.690 09	
Interest due and accrued on bonds		480.779 93	
Interest due and accrued on collateral loans		4.969 72	
Interest due and accrued on premium notes, loans or liens		130.730 23	
Interest due and accrued on other assets: Bank interest		667 98	
			724.523 54
Market value of real estate over book value			3.737 00
Market value of bonds and stocks over book value			776.066 00
Net uncollected and deferred premiums	$112.991 57	$371.064 79	484.056 36
Gross assets			$58.440.118 63

LIABILITIES.

Net present value of outstanding policies: Actuaries, 4 per cent; and American, 3½ per cent; American, 3 per cent; computed by the company's actuary	$49,564,108 34	
Same for reversionary additions	1,096,477 29	
Same for annuities	53,592 84	
Net reserve		$50,714,178 47
Present value of supplementary contracts not involving life contingencies		283,280 00
Death losses in process of adjustment	$97,745 48	
Death losses incurred for which no proofs have been received	135,041 00	
Matured endowments due and unpaid	60,718 59	
Total policy claims		293,505 07
Dividends left with the company to accumulate at interest, interest $64.15		2,202 90
Premiums paid in advance, including surrender values so applied		44,070 36
Unearned interest and rent paid in advance		4,737 05
Commissions due agents on premium notes, when paid		30,223 16
Commissions to agents due or accrued		2,073 78
Salaries, rents, office expenses, bills and accounts due or accrued		4,733 45
Medical examiners' and legal fees due or accrued		441 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		143,780 52
Dividends or other profits due policyholders		219,995 09
Dividends declared on or apportioned to annual dividend policies payable to policyholders during 1912		1,479,000 00
Dividends declared on or apportioned to deferred dividend policies payable to policyholders during 1912		96,847 90
Amounts set apart, apportioned, provisionally ascertained, calculated, declared or held awaiting apportionment upon deferred dividend policies		251,948 90
Reserve for equalization of mortality and depreciation of assets		250,000 00
Reserve for unreported death claims		37,794 00
Unassigned funds (surplus)		4,581,306 98
Total liabilities		$58,440,118 63

PREMIUM NOTE ACCOUNT.

On hand December 31, 1910	$704,958 96	
Received during the year on old policies	1,198,465 84	
Restored by revival of policies	1,546 80	
		$1,904,971 60
Deductions during the year as follows:		
Used in payment of losses and claims	$13,708 42	
Used in purchase of surrendered policies	9,463 48	
Voided by lapse	16,293 66	
Used in payment of dividends to policyholders	377 90	
Redeemed by maker in cash	1,134,295 32	
Total reduction of premium note account		1,174,138 78
Balance note assets at end of the year		$730,832 82

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	89,032	$213,730,176 00
Policies issued, revived, changed and increased during the year	11,001	30,709,682 00
Totals	100,033	$244,439,858 00

	Number.	Amount.		
Amount brought forward			100.033	$244.439.858 00
Deduct policies which have ceased to be in force during the year:				
By death	899	$2,472,782 80		
By maturity	243	516.809 00		
By expiry	368	1.278.777 00		
By surrender	1.198	2.322.211 00		
By lapse	1,681	3.866.593 20		
By decrease	-----	1,164,953 00		
Totals			4.389	11.622.126 00
Total policies in force at end of year 1911			95,644	$232.817,732 00

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Policies in force December 31. 1910	5.175	$10.592.619 00
Policies issued during the year, including transfers to: No. 136. amount. $395.846	524	1.374.627 00
Totals	5.699	$11.967.246 00
Deduct policies ceased to be in force, including transfers from: No. 61, amount. $136.335	366	832.388 00
Policies in force December 31. 1911	5.333	$11.134.858 00
Losses and claims unpaid December 31, 1910	19	$21.790 00
Losses and claims incurred during the year	121	284.432 00
Totals	140	$306.222 00
Losses and claims settled during the year	119	277.283 00
Losses and claims unpaid December 31, 1911	21	$28.939 00
Premiums received		$375.804 84

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus.
Loading on actual premiums of the year (averaging 22.43 per cent of the gross premiums)	$1,786,971 80		
Insurance expenses incurred during the year	1,485,323 66		
Gain from loading		$301.648 14	
Interest earned during the year	$2.517.340 55		
Investment expenses incurred during the year	160,325 92		
Net income from investments	$2.357.014 63		
Interest required to maintain reserve	1.897.553 43		
Gain from interest		459.461 20	
Expected mortality on net amount at risk	$2.435.807 04		
Actual mortality on net amount at risk	1.388.118 17		
Gain from mortality		1.047.688 87	
Total gain during the year from surrendered and lapsed policies		78.449 22	
Decrease in surplus on dividend account		------------	$1.604.059 60
Increase in special funds, and special reserves during the year		------------	287.794 00
Net to loss account		------------	182 00

Investment Exhibit.	Gain in surplus.	Loss in surplus.
Total gains from real estate	337,910 96	
Total losses from real estate	------------	26,200 00
Total gains from stocks and bonds	49,548 50	
Total losses from stocks and bonds	------------	89,358 12
Total gains and losses in surplus during the year	$2,274,706 89	$2,007,593 72
Surplus December 31, 1910 $4,314,193 81		
Surplus December 31, 1911 4,581,306 98		
Increase in surplus (enter in column to balance)	------------	267,113 17
Totals	$2,274,706 89	$2,274,706 89

NEW YORK LIFE INSURANCE COMPANY.

New York City, N. Y.

(Incorporated 1841. Commenced business in California, 1859.)

DARWIN P. KINGSLEY, President. SEYMOUR M. BALLARD, Secretary.

Agent for service in California: ARTHUR HUTCHINSON, San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year		$631,202,274 55

INCOME.

First year's premiums on original policies, less reinsurance	$7,410,347 45	
Dividends applied to purchase paid-up additions and annuities	1,163,234 32	
Consideration for original annuities involving life contingencies	618,614 70	
Consideration for supplementary contracts involving life contingencies	203,503 12	
Total new premiums		$9,395,699 59
Renewal premiums less reinsurance	$71,248,582 33	
Dividends applied to pay renewal premiums	2,517,714 94	
Surrender values applied to pay renewal premiums	45,664 65	
Renewal premiums for deferred annuities	46,863 24	
Total renewal premiums		73,858,825 16
Total premium income		$83,254,524 75
Consideration for supplementary contracts not involving life contingencies		404,611 96
Dividends left with the company to accumulate at interest		52,252 30
Interest on mortgage loans	$4,545,944 53	
Interest on collateral loans	6,233 33	
Interest on bonds	17,370,396 31	
Interest on premium notes, policy loans or liens	5,610,702 34	
Interest on deposits	289,671 86	
Discount on claims paid in advance	6,368 18	
Rents, including $274,546.12 for company's occupancy of its own buildings	844,856 83	
Total interest and rents		28,674,173 38
From other sources: Commissions advanced in previous years now repaid, $51,047.99; policy fees, $34,981.62; doubtful debts recovered, $1,528.44; bonuses received for privilege of prepayment or extension of mortgage loans, $2,814.21; temporary loans, $2,866.67		93,238 93
Profit on sale or maturity of ledger assets		190,866 17
Increase in book value of ledger assets		777,178 94
Total income		$113,446,846 43
Total		$744,649,120 98

DISBURSEMENTS.

Death claims and additions	$24,833.201 61	
Matured endowments and additions	5.643.773 60	
Total death claims and endowments		$30.476.975 21
Annuities involving life contingencies		1.583.183 18
Surrender values paid in cash, or applied in liquidation of loans or notes		12.285.917 36
Surrender values applied to pay new and renewal premiums		45.664 65
Dividends paid policyholders in cash, or applied in liquidation of loans or notes		5.525.905 06
Dividends applied to pay renewal premiums		2.517.714 94
Dividends applied to purchase paid-up additions and annuities		1.163.234 32
Left with the company to accumulate at interest		52,252 30
Total paid policyholders		$53.650.847 02
Expense of investigation and settlement of policy claims, including legal expenses		25.092 42
Supplementary contracts not involving life contingencies		216.064 98
Dividends with interest, held on deposit surrendered during the year		9.811 52
Commissions to agents		4.825.181 24
Commuted renewal commissions		1.100 00
Compensation of managers and agents not paid by commissions on new business		29.159 84
Agency supervision and traveling expenses of supervisors		1.037,492 10
Branch office expenses, including salaries of managers, and clerks not included above		1,069.023 49
Medical examiners' fees and inspection of risks		375,269 57
Salaries and all other compensation of officers and home employees		1.559.008 02
Rent, including company's occupancy of its own buildings		527,640 07
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange		496.275 48
Legal expense		9,659 16
Furniture, fixtures and safes		71.320 88
Repairs and expenses (other than taxes) on real estate		210.957 36
Taxes on real estate		153.050 69
State taxes on premiums		767.809 03
Insurance department licenses and fees		17,631 29
All other licenses, fees and taxes		273.067 52
Other disbursements: Paid agents under Nylic contracts, $479.483.41; doubtful debts marked off, $4,575.44; books, papers and subscriptions, $5.857.35; special inspection reports, $3.667.36; lunch for company's employees, $43.131.81; miscellaneous items of expense, $9.392.73; legislative and departmental expenses, $6.209.62; expenses trustees' election, 1911, $315.18; 1913, $18.794.48; traveling expenses, $12,669.61		584,096 99
Commissions paid on real estate sales		5.000 00
Miscellaneous interest payments, $11,987.77; bank charges, $17.014.81; bond and mortgage expenses, $1.061.29; custody of and insurance on securities, $22.472.08; premium on fidelity bonds, $6,153.75; examinations by New York Insurance Department and by chartered accountants, $20.992.86		79.682 56
Loss on sale or maturity of ledger assets		81.857 71
Decrease in book value of ledger assets		867.586 24
Total disbursements		$66.943.685 18
Balance		$677.705.435 80

LEDGER ASSETS.

Book value of real estate	$10.616.711 90
Mortgage loans on real estate	116.298.323 50
Loans on company's policies assigned as collateral	108.945.787 09
Premium notes on policies in force	4.570.281 38
Book value of bonds and stocks (*b*)	429.764.482 53
Cash in office	2.011 51
Deposits in trust companies and banks not on interest	1.410.386 96
Deposits in trust companies and banks on interest	5.697.239 44
Bills receivable, $4.750.00; branch office balances, debit, $220,846.28; credit, $71,088.48: Net, $149,757.80	154.507 80
Cash in company's branch offices, $77.234.44; cash in transit, $168.469.25	245.703 69
Total ledger assets	$677.705.435 80

Non-Ledger Assets.

Interest due and accrued on mortgages		$1,205.713 55	
Interest due and accrued on bonds (*a*)		6.603.323 79	
Interest due and accrued on premium notes, loans or liens		280.340 27	
Interest due and accrued on other assets		24.536 54	
Rents due and accrued on company's property		7.663 67	
			8.121.577 82
	New business.	Renewals.	
Net uncollected and deferred premiums	$396.315 44	$7.328.615 21	7.724.930 65
Gross assets			$693.551.944 27

Deduct Assets Not Admitted.

Bills receivable	$4.750 00	
*Overdue and accrued interest on bonds in default over market value of same		
Book value of ledger assets over market value: Bonds	8.641,661 49	
Branch office debit balance	220.846 28	
Total		8.867,257 77
Admitted assets		$684,684.686 50

LIABILITIES.

Net present value of outstanding policies: American, 3½ per cent; American, 3 per cent; computed by New York Insurance Department	$547.524.897 00	
Same for reversionary additions	3.607.573 00	
Same for annuities	15.916.129 00	
Total	$567.048.599 00	
†Deduct net value of risks reinsured	129.291 00	
Net reserve (paid for basis)		$566.919,308 00
Present value of supplementary contracts not involving life contingencies		2.731.350 52
Surrender values claimable on policies canceled		260.203 91
Death losses in process of adjustment	$879.538 79	
Death losses incurred for which no proofs have been received	2.172.428 18	
Matured endowments due and unpaid	224.484 10	
Death losses and other policy claims resisted	360.331 35	
Annuity claims, involving life contingencies, due and unpaid	129.334 22	
Total policy claims		3.766.166 64

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*The bonds in default ($3,900,000 par value) are included in the gross assets above only at their market value, $2,391,812.50. Of said market value the amount of $693,791.66 being the overdue and accrued interest, is contained in item (*a*), the remainder being contained in item (*b*).

†The net value of risks reinsured in British companies, $851,484, is not included as these companies are doing business in the state of New York. See Schedule X.

Amount brought forward	$571,677,029 07
Due and unpaid on supplementary contracts not involving life contingencies	449 83
Dividends left with the company to accumulate at interest	106.608 69
Premiums paid in advance, including surrender values so applied	828,094 67
Unearned interest and rent paid in advance	2,557.440 83
Commissions due agents on premium notes, when paid	50.015 11
Commissions to agents due or accrued	10,525 33
Salaries, rents, office expenses, bills and accounts due or accrued	91.432 08
Medical examiners' and legal fees due or accrued	28.939 02
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement	1.105.236 98
Dividends or other profits due policyholders	494.277 24
Dividends declared on or apportioned to annual dividend policies payable to policyholders during 1912	4.580.217 00
Dividends declared on or apportioned to deferred dividend policies payable to policyholders during 1912	7,109.926 32
Amounts set apart, apportioned, provisionally ascertained, calculated, declared or held awaiting apportionment upon deferred dividend policies	83.064,153 00
Reserve or surplus funds not otherwise included in liabilities: War risk fund, $501.592; security fluctuation and general contingency fund, $7.076.324.32; mortality fluctuation fund, $500,000.00; annual dividend equalization funds, $757,756.00	8.835.672 32
Other liabilities: Due agents under Nylic contracts, $1.275.01; reserve for Nylic contracts, $1.538,444.00; reserve for death claims not yet reported to home office, $600,000.00; reserve for unclaimed receipts, $5,000.00	2,144,719 01
Total liabilities	$684.684.686 50

PREMIUM NOTE ACCOUNT.

On hand December 31, 1910	$4.578.992 59	
Received during the year on old policies	811,060 65	
Restored by revival of policies	19,071 66	
		$5.409.124 90
Deductions during the year as follows:		
Used in payment of losses and claims	$51.030 56	
Used in purchase of surrendered policies	152.625 38	
Redeemed by maker in cash	635.187 58	
Total reduction of premium note account		838.843 52
Balance note assets at end of the year		$4.570.281 38

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.	Number.	Amount.
Policies in force December 31, 1910			996.049	$2.039,863.031 00
Policies issued, revived, changed and increased during the year			80.780	190.268.551 00
Totals			1.076.829	$2.230.131.582 00
Deduct policies which have ceased to be in force during the year:				
By death	9.981	$24.947.125 00		
By maturity	2.499	5.547.554 00		
By expiry	7.026	18.036.902 00		
By surrender	17.197	36.919.458 00		
By lapse	17.400	35.700.013 00		
By decrease	-----	6.874.784 00		
Totals			54.103	128.025.836 00
Total policies in force at end of year 1911			1.022.726	$2.102.105.746 00
Reinsured			116	$2.439.203 00

BUSINESS IN CALIFORNIA.

Ordinary.	Number.	Amount.
Policies in force December 31, 1910	22,760	$48,556,340 00
Policies issued during the year	2,341	4,749,301 00
Totals	25,101	$53,305,641 00
Deduct policies ceased to be in force	1,350	2,981,650 00
Policies in force December 31, 1911	23,751	$50,323,991 00
Losses and claims unpaid December 31, 1910	20	$64,362 00
Losses and claims incurred during the year	344	663,003 77
Totals	364	$727,365 77
Losses and claims settled during the year	354	704,977 67
Losses and claims unpaid December 31, 1911	10	$22,388 10
Premiums received		$2,204,751 68

THE NORTHWESTERN MUTUAL LIFE INSURANCE COMPANY.

Milwaukee, Wisconsin.

(Incorporated March, 1857. Commenced business in California, 1867 to 1873, and 1882.)

GEO. C. MARKHAM, President. A. S. HATHAWAY, Secretary.

Agent for service in California: SMITH, THOMAS & THOMAS, San Francisco.

CAPITAL.

Capital stock paid up in cash	Purely mutual.	
Amount of ledger assets December 31st of previous year		$269,497,968 80

INCOME.

First year's premiums on original policies, less reinsurance	$3,911,934 61	
Surrender values to pay first year's premiums	7,446 12	
Dividends applied to purchase paid-up additions and annuities	1,397,336 65	
Consideration for original annuities involving life contingencies	47,914 72	
Consideration for supplementary contracts involving life contingencies	23,045 36	
Total new premiums		$5,387,677 66
Renewal premiums less reinsurance	$29,020,543 60	
Dividends applied to pay renewal premiums	6,000,689 39	
Surrender values applied to pay renewal premiums	9 92	
Renewal premiums for deferred annuities	12,342 66	
Total renewal premiums		35,033,585 57
Total premium income		$40,421,263 23
Consideration for supplementary contracts not involving life contingencies		628,799 16
Dividends left with the company to accumulate at interest		7,504 53
Interest on mortgage loans	$7,446,393 10	
Interest on bonds and dividends on stocks	3,172,489 58	
Interest on premium notes, policy loans or liens	2,163,808 84	
Interest on deposits	73,735 15	
Interest on other debts due the company	361,912 04	
Discount on claims paid in advance	18,281 01	
Rents, including $56,540.00 for company's occupancy of its own buildings	186,329 76	
Total interest and rents		13,422,949 48

Amount brought forward		$54,480,516 40
Profit on sale or maturity of ledger assets		16,877 19
Increase in book value of ledger assets		37,748 19
Total income		$54,535,141 78
Total		$324,033,110 58

DISBURSEMENTS.

Death claims and additions	$10,830,204 59	
Matured endowments and additions	2,838,559 37	
Total death claims and endowments		$13,668,763 96
Annuities involving life contingencies		71,322 62
Surrender values paid in cash, or applied in liquidation of loans or notes		9,269,598 58
Surrender values applied to pay new and renewal premiums		7,456 04
Dividends paid policyholders in cash, or applied in liquidation of loans or notes		5,204,790 48
Dividends applied to pay renewal premiums		6,000,689 39
Dividends applied to purchase paid-up additions and annuities		1,397,336 85
Left with the company to accumulate at interest		7,504 53
Total paid policyholders		$35,627,462 45
Expense of investigation and settlement of policy claims, including legal expenses		7,560 73
Supplementary contracts not involving life contingencies		232,507 83
Dividends with interest, held on deposit surrendered during the year		509 52
Commissions to agents		4,260,923 50
Compensation of managers and agents not paid by commission on new business		7,083 22
Agency supervision and traveling expenses of supervisors		2,463 04
Medical examiners' fees and inspection of risks		227,023 58
Salaries and all other compensation of officers and home employees		835,158 63
Rent, including company's occupancy of its own buildings		64,165 74
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange		226,415 84
Legal expense		2,267 35
Furniture, fixtures and safes		4,051 46
Repairs and expenses (other than taxes) on real estate		84,117 35
Taxes on real estate		42,307 65
State taxes on premiums		399,598 02
Insurance department licenses and fees		27,598 22
All other licenses, fees and taxes		525,030 89
Other disbursements		170,245 02
Loss on sale or maturity of ledger assets		1,130 70
Decrease in book value of ledger assets		89,696 56
Total disbursements		$42,837,317 30
Balance		$281,195,793 28

LEDGER ASSETS.

Book value of real estate	$2,106,248 75
Mortgage loans on real estate	153,562,654 39
Loans on company's policies assigned as collateral	41,988,863 02
Premium notes on policies in force including automatic premium loans	697,586 41
Book value of bonds and stocks (Schedule D)	79,668,077 63
Cash in office	20,470 85
Deposits in trust companies and banks on interest	3,151,276 98
Agents' balances	615 25
Total ledger assets	$281,195,793 28

Non-Ledger Assets.

Interest due and accrued on mortgages		$2,134,743 45	
Interest due and accrued on bonds		1,150,742 33	
Interest due and accrued on premium notes, loans or liens		1,317,985 03	
Interest due and accrued on other assets		3,207 00	
Rents due and accrued on company's property		11,497 23	
			$4,618,175 04
	New business.	Renewals.	
Net uncollected and deferred premiums	$255,904 42	$2,988,654 58	3,244,559 00
Gross assets			$289,058,527 32

Deduct Assets Not Admitted.

Agents' debit balances	$615 25	
Book value of ledger assets over market value	3,482,692 63	
		3,483,307 88
Admitted assets		$285,575,219 44

LIABILITIES.

Net present value of outstanding policies: Actuaries, 4 per cent; and American, 3 per cent; computed by the company	$242,010,408 00	
Same for reversionary additions	9,731,716 00	
Same for annuities including McClintock's table at 3½ per cent	1,182,590 00	
Net reserve		$252,924,714 00
Present value of supplementary contracts not involving life contingencies		2,711,799 41
Surrender values claimable on policies canceled		7,335 63
Death losses due and unpaid	$45,760 79	
Death losses in process of adjustment	102,221 99	
Death losses incurred for which no proofs have been received	246,764 00	
Matured endowments due and unpaid	43,873 96	
Death losses and other policy claims resisted	105,817 47	
Annuity claims, involving life contingencies, due and unpaid	2,927 82	
Total policy claims		547,366 03
Due and unpaid on supplementary contracts not involving life contingencies		2,249 69
Dividends left with the company to accumulate at interest		13,767 34
Premiums paid in advance, including surrender values so applied		19,071 66
Unearned interest and rent paid in advance		612 22
Commissions to agents due or accrued		88,547 29
Salaries, rents, office expenses, bills and accounts due or accrued		86,527 20
Medical examiners' and legal fees due or accrued		54,108 00
*Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		969,923 07
Dividends or other profits due policyholders		1,016,808 96
Dividends declared on or apportioned to annual dividend policies payable to policyholders during 1912		8,922,402 81
Dividends declared on or apportioned to deferred dividend policies payable to policyholders during 1912		4,183,460 10
Amounts set apart, apportioned, provisionally ascertained, calculated, declared or held awaiting apportionment upon deferred dividend policies		7,709,393 00
Reserved for death claims incurred on or before and reported to home office after December 31st		250,000 00
Unassigned funds (surplus)		6,067,133 03
Total liabilities		$285,575,219 44

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*Claim for additional federal tax on business of 1909 and 1910 amounting to $145,392.75, paid under protest January 20, 1912, not included.

PREMIUM NOTE ACCOUNT.

(Including automatic premium loans.)

On hand December 31, 1910	$559,687 17	
Received during the year on old policies	511,572 50	
Restored by revival of policies	753 88	
		$1,072,013 55
Deductions during the year as follows:		
Used in payment of losses and claims	$17,189 20	
Used in purchase of surrendered policies	60,497 40	
Used in payment of dividends to policyholders	133,455 89	
Redeemed by maker in cash	163,284 65	
Total reduction of premium note account		374,427 14
Balance note assets at end of the year		$697,586 41

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.	Number.	Amount.
Policies in force December 31, 1910			425,481	$1,080,139,708 00
Policies issued, revived, changed and increased during the year			44,116	125,686,555 00
Totals			469,597	$1,205,826,263 00
Deduct policies which have ceased to be in force during the year:				
By death	3,721	$10,597,119 00		
By maturity	1,092	2,861,702 00		
By expiry	377	1,956,878 00		
By surrender	9,870	23,128,437 00		
By lapse	7,030	16,916,388 00		
By decrease		3,092,216 00		
Totals			22,090	58,552,740 00
Total policies in force at end of year 1911			447,507	$1,147,273,523 00

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	13,028	$31,863,453 00
Policies issued during the year	1,072	3,762,200 00
Totals	14,100	$35,625,653 00
Deduct policies ceased to be in force	167	439,386 00
Policies in force December 31, 1911	13,933	$35,186,267 00
Losses and claims unpaid December 31, 1910, (No. 5 amount $8,612.00 adjusted as)	6	$8,949 00
Losses and claims incurred during the year	154	331,925 04
Totals	160	$340,874 04
Losses and claims settled during the year	150	328,866 04
Losses and claims unpaid December 31, 1911	10	$12,008 00
Premiums received, premiums paid by non-residents not included		$954,440 33

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus.
Loading on actual premiums of the year (averaging 20.58 per cent of the gross premiums)	$8,398,374 75		
Insurance expenses incurred during the year	6,957,106 25		
Gain from loading		$1,441,268 50	
Interest earned during the year	$13,666,571 00		
Investment expenses incurred during the year	755,764 18		
Net income from investments	$12,910,806 82		
Interest required to maintain reserve	8,761,642 00		
Gain from interest		4,149,164 82	
Expected mortality on net amount at risk	$11,446,316 98		
Actual mortality on net amount at risk	6,529,446 11		
Gain from mortality		4,916,870 87	
Net expected disbursements to annuitants	43,403 00		
Net actual annuity claims incurred	23,653 85		
Gain from annuities		19,749 15	
Total gain during the year from surrendered and lapsed policies		338,169 05	
Decrease in surplus on dividend account		------------	$10,122,217 06
Increase in special funds, and special reserves during the year		------------	250,000 00

Investment Exhibit.

		Gain in surplus.	Loss in surplus.
Total gains from real estate		13,835 00	
Total losses from real estate		------------	16,125 50
Total gains from stocks and bonds		3,042 19	
Total losses from stocks and bonds		------------	531,946 62
Gain from assets not admitted		15,444 55	
Total gains and losses in surplus during the year		$10,897,544 13	$10,920,289 18
Surplus December 31, 1910	$6,089,878 08		
Surplus December 31, 1911	6,067,133 03		
Decrease in surplus (enter in column to balance)		22,745 05	
Totals		$10,920,289 18	$10,920,289 18

OCCIDENTAL LIFE INSURANCE COMPANY.

Sixth and Spring streets, Los Angeles, California.

(Incorporated June 30, 1906. Commenced business in California August 14, 1906.)

JOSEPH BURKHARD, President. ROBERT J. GILES, Secretary.

CAPITAL.

Capital stock paid up in cash	$250,000 00	
Amount of ledger assets December 31st of previous year		$523,201 67

INCOME.

First year's premiums on original policies, less reinsurance	$87.002 42	
Dividends applied to purchase paid-up additions and annuities	18 89	
Total new premiums		$87.021 31
Renewal premiums less reinsurance	$142.537 53	
Dividends applied to pay renewal premiums	246 07	
Surrender values applied to pay renewal premiums	79 67	
Total renewal premiums		142.863 27
Total premium income		$229.884 58
Dividends left with the company to accumulate at interest		3 76
Interest on mortgage loans	$31.068 78	
Interest on collateral loans	569 40	
Interest on bonds and dividends on stocks	68 33	
Interest on premium notes, policy loans or liens	1,228 21	
Interest on other debts due the company	1,060 65	
Total interest and rents		33.995 37
From other sources: Increase in suspense account, $471.95; agents' credit balances previously deducted from assets, $478.11; income from accident department, $210.133.70		211.083 76
Total income		$474.967 47
Total		$998.169 14

DISBURSEMENTS.

Death claims and additions	$16.276 50
Annuities involving life contingencies	336 44
Surrender values paid in cash, or applied in liquidation of loans or notes	3.338 00
Surrender values applied to pay new and renewal premiums	79 67
Dividends applied to pay renewal premiums	246 07
Dividends applied to purchase paid-up additions and annuities	18 89
Left with the company to accumulate at interest	3 76
Total paid policyholders	$20.299 33
Expense of investigation and settlement of policy claims, including legal expenses	5 00
Commissions to agents	65.711 96
Compensation of managers and agents not paid by commissions on new business	1.697 09
Agency supervision and traveling expenses of supervisors	3.354 07
Medical examiners' fees and inspection of risks	6.920 85
Salaries and all other compensation of officers and home employees	20,440 13
Rent, including company's occupancy of its own buildings	2.596 50
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange	7.801 15
Legal expense	714 32
Furniture, fixtures and safes	4.955 36
State taxes on premiums	1.373 73
Insurance department licenses and fees	1.333 82
All other licenses, fees and taxes	25 62
Other disbursements	5.767 65
Agents' balances charged off	13,687 12
Disbursements accident department	242.286 87
Total disbursements	$398.970 57
Balance	$599.198 57

LEDGER ASSETS.

Mortgage loans on real estate	$481,500 69
Loans secured by collaterals	5,500 00
Loans on company's policies assigned as collateral	21,284 37
Cash in office	23,918 63
Deposits in trust companies and banks not on interest	47,224 81
Premiums in course of collection, accident department, written after October 1, 1911	19,770 07
Total ledger assets	$599,198 57

Non-Ledger Assets.

	New business.	Renewals.	
Interest due and accrued on mortgages		$5,810 81	
Interest due and accrued on collateral loans		52 98	
			5,863 79
Net uncollected and deferred premiums	$686 76	$25,733 77	26,420 53
Admitted assets			$631,482 89

LIABILITIES.

Net present value of outstanding policies: American, 3½ per cent. computed by the Insurance Department	$264,943 00	
Same for reversionary additions	68 00	
Same for annuities	2,241 00	
Total	$267,252 00	
Deduct net value of risks reinsured	700 00	
Net reserve		$266,552 00
Dividends left with the company to accumulate at interest		7 09
Premiums paid in advance, including surrender values so applied		1,920 57
Unearned interest and rent paid in advance		779 87
Salaries, rents, office expenses, bills and accounts due or accrued		329 89
Medical examiners' and legal fees due or accrued		40 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		4,614 87
Dividends or other profits due policyholders		23 69
Dividends declared on or apportioned to annual dividend policies payable to policyholders during 1912		435 57
Other liabilities: Items in suspense, $1,047.19; agents' credit balances, $470.55		1,517 74
Special inspectors' remuneration		3,339 69
Liabilities of accident department		69,835 18
Paid-up capital		250,000 00
Unassigned funds (surplus)		32,086 73
Total liabilities		$631,482 89

PREMIUM NOTE ACCOUNT.

On hand December 31, 1910	$9,458 00	
Received during the year on old policies	15,182 37	
		$24,640 37
Deductions during the year as follows:		
Used in purchase of surrendered policies	$825 00	
Redeemed by maker in cash	2,531 00	
Total reduction of premium note account		3,356 00
Balance note assets at end of the year		$21,284 37

EXHIBIT OF POLICIES.

Ordinary.	Number.	Amount.
Policies in force December 31, 1910	2,176	$5,296,312 90
Policies issued, revived, changed and increased during the year	1,070	2,427,761 29
Totals	3,246	$7,724,074 19

	Number.	Amount.		
Amount brought forward			3,246	$7,724,074 19
Deduct policies which have ceased to be in force during the year:				
By death	12	$16,315 00		
By expiry	24	50,382 00		
By surrender	49	116,672 03		
By lapse	445	1,012,669 81		
By decrease	----	32,258 65		
Totals			530	1,228,297 49
Total policies in force at end of year 1911			2,716	$6,495,776 70
Reinsured			11	$57,500 00

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	2,025	$4,960,356 00
Policies issued during the year	958	2,193,310 00
Totals	2,983	$7,153,666 00
Deduct policies ceased to be in force	517	1,191,469 00
Policies in force December 31, 1911	2,466	$5,962,197 00
Losses and claims incurred during the year		$13,961 50
Premiums received		$219,071 50

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus.
Loading on actual premiums of the year (averaging 38½ per cent of the gross premiums)	$93,017 93		
Insurance expenses incurred during the year	141,735 47		
Loss from loading		----------	$48,717 54
Interest earned during the year	$34,884 59		
Investment expenses incurred during the year	2,799 19		
Net income from investments	32,085 40		
Interest required to maintain reserve	8,382 00		
Gain from interest		$23,703 40	
Expected mortality on net amount at risk	$54,986 00		
Actual mortality on net amount at risk	15,957 50		
Gain from mortality		39,028 50	
Expected disbursements to annuitants	$191 00		
Net actual annuity claims incurred	336 44		
Loss from annuities		----------	145 44
Total gain during the year from surrendered and lapsed policies		1,839 76	
Decrease in surplus on dividend account		----------	367 94
Gain from assets not admitted	----------	8,867 56	
Underwriting loss from accident department		----------	22,491 00
Gain from total disability insurance		2,514 00	
Total gains and losses in surplus during the year		$75,953 22	$71,721 92
Surplus December 31, 1910	$27,855 43		
Surplus December 31, 1911	32,086 73		
Increase in surplus (enter in column to balance)		----------	4,231 30
Totals		$75,953 22	$75,953 22

OCCIDENTAL LIFE INSURANCE COMPANY.

(Accident and Health Department).

Los Angeles, California.

(Incorporated June 30, 1906. Commenced business in California: Life Department, August 14, 1906; Accident Department, April 15, 1907.)

JOSEPH BURKHARD, President. ROBERT J. GILES, Secretary.

INCOME.

Accident—Gross premiums, written and renewed during the year, $165,068.19; deduct reinsurance, $2,701.63; return premiums on policies canceled, $5,922.99; premiums on policies not taken, $37,919.22: Total deductions, $46,543.84		$118,524 35
Health—Gross premiums written and renewed during the year, $61,594.20; deduct reinsurance, $1,242.80; return premiums on policies canceled, $2,837.50; premiums on policies not taken, $13,640.09: Total deductions, $17,720.39		43,873 81
Total net premiums		$162,398 16
Policy fees required or represented by applications		47,590 00
Decrease in suspense account	$32 66	
Agents' credit balances previously deducted from assets	178 20	
		145 54
Total income carried to life department statement		$210,133 70

DISBURSEMENTS.

Accident—Gross amount paid for losses, $68,691.27; deduct reinsurance, $4,786.85	$63,904 42
Health—Gross amount paid for losses, $25,454.78; deduct reinsurance, $1,055.33	24,399 45
Total net amount paid policyholders for losses	$88,303 87
Investigation and adjustment of claims	1,033 67
Policy fees retained by agents	47,496 43
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	42,938 56
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	13,031 33
Salaries, traveling and all other expenses of agents not paid by commissions	16,180 45
Inspections (other than medical and claim)	172 00
Rents	1,294 50
State taxes on premiums	929 18
Insurance department licenses and fees	940 50
All other licenses, fees and taxes	32 66
Legal expenses	1,125 15
Advertising	1,580 91
Printing and stationery	3,927 80
Postage, telegraph, telephone and express	1,993 65
Furniture and fixtures, charged off	2,477 67
Other disbursements: Surety bonds, $52.00; sundries, $194.44	246 44
Agents' balances charged off	18,582 10
Total disbursements, carried to life statement	$242,286 87

LEDGER ASSETS.

	Issued on or after Oct. 1, 1911.	
Gross premiums in course of collection on policies or renewals:		
Accident	$15,859 19	
Health	3,910 88	
Ledger assets as per balance, carried to life statement		$19,770 07

LIABILITIES.

Losses and claims:	
Accident—Reported or in process of adjustment, $4,714.31; resisted, $7,375.00; deduct reinsurance, $5,000.00; net unpaid claims, except liability claims, $7,089.31; estimated expense of investigations and adjustment of unpaid claims, $500.00	$7,589 31
Health—Reported or in process of adjustment	1,981 04
Net unpaid claims, except liability claims	$9.570 35
Unearned premiums at 50 per cent on risks running one year or less	46,016 24
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident and health	6,058 88
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued	156 87
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement	3.448 03
Advance premiums (100 per cent)	4.405 70
Items in suspense	179 11
Total amount of all liabilities (accident department, carried to life statement)	$69.835 18

EXHIBIT OF PREMIUMS.

	Accident.	Health.
In force December 31, 1910	$73,745 38	$23.922 55
Written or renewed during the year	165,068 19	61.594 20
Totals	$238.813 57	$85.516 75
Deduct expirations and cancellations	162.949 84	65.300 33
Balance	$75.863 73	$20.216 42
Deduct reinsured policies	2.827 55	1,220 12
Net in force December 31, 1911	$73.036 18	$18.996 30

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Gross premiums.	Gross losses paid.
Accident	$107,858 14	$56.473 41
Health	39,966 95	21,004 25
Totals	$147.825 09	$77.477 66

THE PACIFIC MUTUAL LIFE INSURANCE COMPANY.

Sixth and Olive streets, Los Angeles, California.

(Incorporated Dec. 28, 1867. Commenced business in California Jan., 1868.)

GEO. I. COCHRAN, President. C. I. D. MOORE, Secretary.

CAPITAL.

Capital stock paid up in cash	$1.000.000 00	
Amount of ledger assets December 31st of previous year		$19.452.639 17
Deduct portion of stockholders' surplus transferred to accident department		100,000 00
Extended at		$19.352.639 17

INCOME.

First year's premiums on original policies, less reinsurance, $10,980.52	$693,928 45	
Surrender values to pay first year's premiums	3,613 98	
Dividends applied to purchase paid-up additions and annuities	166,060 84	
Consideration for original annuities involving life contingencies	9,602 00	
Consideration for supplementary contracts involving life contingencies	1,351 00	
Total new premiums		$874,556 27
Renewal premiums less reinsurance, $35,436.04	$3,592,631 57	
Dividends applied to pay renewal premiums	122,929 97	
Surrender values applied to pay renewal premiums	32,771 99	
Total renewal premiums		3,748,333 53
Total premium income		$4,622,889 80
Consideration for supplementary contracts not involving life contingencies		44,439 66
Dividends left with the company to accumulate at interest		3,091 10
Interest on mortgage loans	$535,240 75	
Interest on collateral loans	66,927 04	
Interest on bonds and dividends on stocks	260,800 99	
Interest on premium notes, policy loans or liens	195,510 75	
Interest on deposits	4,473 30	
Interest on other debts due the company	7,746 52	
Discount on claims paid in advance	753 12	
Rents, including $33,600 for company's occupancy of its own buildings	47,770 86	
Total interest and rents	1,119,223 33	
Less interest paid on reinsurance fund, $4,343.72; less discount on premiums paid in advance, $813.45	5,157 17	
		1,114,066 16
From other sources: Bonus on bond options, $6,648.52; sale of unlisted assets, $3,612.86		10,261 38
Agents' balances previously charged off		2,458 24
Profit on sale or maturity of ledger assets		4,130 86
Increase in book value of ledger assets		18,060 43
Total income		$5,819,397 63
Total		$25,172,036 80

DISBURSEMENTS.

Death claims and additions	$898,850 74	
Matured endowments and additions	98,330 00	
Annuities involving life contingencies		$9,799 73
Premium notes and liens voided by lapse, less $4,350.25 restorations		25,180 87
Surrender values paid in cash, or applied in liquidation of loans or notes		445,512 70
Surrender values applied to pay new and renewal premiums		36,385 97
Dividends paid policyholders in cash, or applied in liquidation of loans or notes		81,536 56
Dividends applied to pay renewal premiums		122,929 97
Dividends applied to purchase paid-up additions and annuities		166,060 84
Left with the company to accumulate at interest		3,091 10
Total paid policyholders		$1,887,678 48
Expense of investigation and settlement of policy claims, including legal expenses		5,074 87
Supplementary contracts not involving life contingencies		10,467 60
Dividends with interest, held on deposit surrendered during the year		34 78
Interest or dividends to stockholders		80,000 00
Commissions to agents		719,129 39

Amount brought forward	$2,703,385 12
Compensation of managers and agents not paid by commissions on new business	22,939 74
Agency supervision and traveling expenses of supervisors	19,505 71
Medical examiners' fees and inspection of risks	61,229 91
Salaries and all other compensation of officers and home employees	184,360 20
Rent, including company's occupancy of its own buildings	33,600 00
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange	61,508 48
Legal expense	9,675 64
Furniture, fixtures and safes	6,406 33
Repairs and expenses (other than taxes) on real estate	11,425 42
Taxes on real estate	10,425 01
State taxes on premiums	55,237 34
Insurance department licenses and fees	7,606 76
All other licenses, fees and taxes	12,182 56
Other disbursements	15,383 30
Agents' balances charged off	3,121 52
Loss on sale or maturity of ledger assets	22,528 20
Decrease in book value of ledger assets	168,747 80
Total disbursements	$3,408,269 04
Balance	$21,763,767 76

LEDGER ASSETS.

Book value of real estate		$1,129,229 38
Mortgage loans on real estate		10,692,846 70
Loans secured by collaterals (schedule C)		1,363,483 34
Loans on company's policies assigned as collateral		2,723,699 81
Premium notes on policies in force		1,006,651 26
Book value of bonds and stocks (schedule D)		4,489,877 91
Cash in course of transmission	$172,598 86	
Cash in office	6,623 48	
Deposits in trust companies and banks not on interest	132,101 54	
Deposits in trust companies and banks on interest	165,248 20	
	$476,572 08	
Less reinsurance fund	118,592 72	
		357,979 36
Total ledger assets		$21,763,767 76

Non-Ledger Assets.

Interest due and accrued on mortgages		$116,337 43	
Interest due and accrued on bonds		78,306 67	
Interest due and accrued on collateral loans		16,807 78	
Interest due and accrued on premium notes, loans or liens		38,437 34	
		$249,889 22	
Less interest accrued on reinsurance fund		2,318 03	
			247,571 19
	New business.	Renewals.	
Net uncollected and deferred premiums	$58,893 72	$485,236 67	544,220 39
Gross assets			$22,555,559 34

Deduct Assets Not Admitted.

Premium notes or loans on policies and net premiums in excess of value of their policies	$32,450 36	
Virginia special deposit—excess of deposit over liabilities	29,923 00	
Total		62,373 36
Admitted assets, life department		$22,493,185 98
Admitted assets, accident department		870,100 93
Total admitted assets		$23,363,286 91

LIABILITIES.

Net present value of outstanding policies: Actuaries, 4 per cent; and American, 3½ per cent; American, 3 per cent; computed by the insurance department	$18,363,996 40	
Same for reversionary additions	1,298,958 21	
Same for annuities	88,099 79	
Total	$19,751,054 40	
Deduct net value of risks reinsured	149,905 45	
	$19,601,148 95	
Reserve to provide for health and accident benefits contained in life policies	31,604 94	
Net reserve		$19,632,753 89
Present value of supplementary contracts not involving life contingencies		81,206 55
Surrender values claimable on policies canceled		4,172 40
Death losses in process of adjustment	$18,452 46	
Death losses incurred for which no proofs have been received	62,933 00	
Matured endowments due and unpaid	1,529 00	
Death losses and other policy claims resisted	1,000 00	
Annuity claims, involving life contingencies, due and unpaid	168 00	
Total policy claims		84,082 46
Dividends left with the company to accumulate at interest		3,358 75
Premiums paid in advance, including surrender values so applied		42,572 14
Unearned interest and rent paid in advance		74,168 59
Commissions due agents on premium notes, when paid		2,876 23
Commissions to agents due or accrued		3,957 81
Salaries, rents, office expenses, bills and accounts due or accrued		11,874 80
Medical examiners' and legal fees due or accrued		12,693 50
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		66,255 00
Unpaid dividends to stockholders		45,000 00
Dividends or other profits due policyholders		1,357 35
Dividends declared on or apportioned to annual dividend policies payable to policyholders during 1912		75,153 20
Dividends declared on or apportioned to deferred dividend policies payable to policyholders during 1912		63,615 71
Amounts set apart, apportioned, provisionally ascertained, calculated, declared or held awaiting apportionment upon deferred dividend politics		518,950 05
Fund to meet commissions for inspections		32,388 34
Liabilities of life department		20,756,436 77
Liabilities of accident department		804,600 93
Paid-up capital		1,000,000 00
Unassigned funds (surplus): Life department, $736,749.21; accident department, $65,500.00		802,249 21
Total liabilities, life and accident departments		$23,363,286 91

PREMIUM NOTE ACCOUNT.

On hand December 31, 1910	$981,803 44	
Received during the year on old policies	270,967 49	
Interest	34,731 51	
Restored by revival of policies	4,350 25	
		$1,291,852 69
Deductions during the year as follows:		
Used in payment of losses and claims	$22,280 45	
Used in purchase of surrendered policies	62,565 37	
Voided by lapse	29,531 12	
Used in payment of dividends to policyholders	6,390 76	
Redeemed by maker in cash	164,433 73	
Total reduction of premium note account		285,201 43
Balance note assets at end of the year		$1,006,651 26

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	64,178	$113,882,634 00
Policies issued, revived, changed and increased during the year	9,254	19,702,114 00
Totals	73,432	$133,584,748 00

Deduct policies which have ceased to be in force during the year:

	Number.	Amount.	Number.	Amount.
By death	479	$958,558 00		
By maturity	48	97,824 00		
By expiry	2,329	4,028,525 00		
By surrender	1,361	2,279,860 00		
By lapse	1,316	2,513,472 00		
By decrease	----	1,192,062 00		
Totals			5,533	11,070,301 00
Total policies in force at end of year 1911			67,899	$122,514,447 00
Reinsured			422	$2,902,098 00

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	18,266	$35,837,828 00
Policies issued during the year	2,077	5,587,566 00
Totals	20,343	$41,425,394 00
Deduct policies ceased to be in force	1,258	2,779,080 00
Policies in force December 31, 1911	19,085	$38,646,314 00
Losses and claims unpaid December 31, 1910	12	$16,111 08
Losses and claims incurred during the year	152	302,241 47
Totals	164	$318,352 55
Losses and claims settled during the year	152	305,605 55
Losses and claims unpaid December 31, 1911	12	$12,747 00
Premiums received		$1,499,185 34

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus.
Loading on actual premiums of the year (averaging 25.0 per cent of the gross premiums)	$1,175,543 96		
Insurance expenses incurred during the year	1,212,713 38		
Loss from loading		------------	$37,169 42
Interest earned during the year	$1,148,658 88		
Investment expenses incurred during the year	49,406 49		
Net income from investments	$1,099,252 39		
Interest required to maintain reserve	673,546 12		
Gain from interest		$425,706 27	
Expected mortality on net amount at risk	$1,178,234 14		
Actual mortality on net amount at risk	669,814 66		
Gain from mortality		508,419 48	
Expected disbursements to annuitants	$5,373 38		
Net actual annuity claims incurred	4,725 73		
Gain from annuities		647 65	
Total gain during the year from surrendered and lapsed policies		71,340 06	
Dividends paid stockholders		------------	80,000 00
Decrease in surplus on dividend account		------------	612,010 55
Increase in special funds, and special reserves during the year		------------	377 19
Reserves released		25,497 02	
Net to profit account		2,293 49	

Investment Exhibit.

		Gain in surplus.	Loss in surplus.
Total gains from stocks and bonds		103,807 68	
Total losses from stocks and bonds		------------	185,757 46
Loss on other investments, mortgage and collateral loans written off		------------	5,518 54
From assets not admitted		------------	28,441 21
Set aside for stockholders' dividend, payable January 2, 1912		------------	45,000 00
Total gains and losses in surplus during the year		$1,137,711 65	$994,274 37
Surplus Dec. 31, 1910, $693,311.93; less portion of stockholders' surplus, $100,000.00	$593,311 93		
Surplus December 31, 1911	736,749 21		
Increase in surplus (enter in column to balance)		------------	143,437 28
Totals		$1,137,711 65	$1,137,711 65

PACIFIC MUTUAL LIFE INSURANCE COMPANY.

(Accident and Health Branch).

Sixth and Olive streets, Los Angeles, California.

(Incorporated December 28, 1867. Commenced business in California (Accident Department) May 1, 1885.)

GEO. I. COCKRAN, President. C. I. D. MOORE, Secretary.

CAPITAL.

Capital stock paid up in cash	$1,000,000 00	
Amount of ledger assets December 31st of previous year	714,950 47	
Transferred from life department	100,000 00	
Extended at		$814,950 47

INCOME.

Accident—Gross premiums written and renewed during the year, $1,531,741.34; deduct reinsurance, $37.00; return premiums on policies canceled, $20,801.26; premiums on policies not taken, $360,216.68: Total deductions, $381,054.94		$1,150,686 40
Health—Gross premiums written and renewed during the year, $396,721.45; return premiums on policies canceled, $6,430.16; premiums on policies not taken, $54,765.98: Total deductions, $61,196.14		335,525 31
Total net premiums		$1,486,211 71
Policy fees required or represented by applications		71,350 00
Interest on mortgage loans, $13,369.59; collateral loans, $1,306.66	$14,676 25	
Bonds and divisions on stocks, $9,016.10; from other sources, $276.42	9,292 52	
Total interest and rents		23,968 77
Ledger assets (cash only received) other than premiums received from other companies for assuming their risks		8,000 00
Agents' balances previously charged off		3,305 87
Profit on sale or maturity of ledger assets: Bonds		3,850 14
Total income		$1,596,686 49
Sum		$2,411,636 96

DISBURSEMENTS.

Accident—Gross amount paid for losses, $483,777.18; deduct reinsurance, $12,902.40	$470,874 78
Health—Gross amount paid for losses, $153,716.42; deduct reinsurance, $1,088.52	152,627 00
Total net amount paid policyholders for losses	$623,502 68
Investigation and adjustment of claims	5,922 14
Policy fees retained by agents	71,350 00
Commissions or brokerage to agents (less amount received on return premiums and reinsurance)	488,591 53
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	101,002 14
Salaries, traveling and all other expenses of agents not paid by commissions	27,748 00
Medical examiners' fees and salaries	15,946 92
Inspections (other than medical and claim)	1,190 45
Rents	20,049 91
State taxes on premiums	20,235 24
Insurance department licenses and fees	4,466 64

All other licenses, fees and taxes	$4,237 96
Legal expenses	2,962 54
Advertising	8,305 50
Printing and stationery	22,823 92
Postage, telegraph, telephone and express	14,932 84
Furniture and fixtures	4,294 35
Stockholders for interest or dividends	80,000 00
Other disbursements: State Department examinations, $787.67; dividends to policyholders, $177.10; general expense, $4,965.95; investment expense, $533.89; amount paid for business of the Republic Indemnity Company, $12,683.07	19,147 68
Agents' balances charged off	9,536 34
Total disbursements	$1,546,246 78
Balance	$865,390 18

LEDGER ASSETS.

	On policies or renewals issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Mortgage loans on real estate, first liens			$517,700 00
Cash in office, $4,356.35; in course of transmission, $39,574.07			43,930 42
Deposits in trust companies and banks not on interest			10,313 81
Gross premiums in course of collection:			
Accident	$249,952 79	$2,020 83	
Health	40,798 72	673 61	
Totals	$290,751 51	$2,694 44	293,445 95
Ledger assets as per balance			$865,390 18

Non-Ledger Assets.

Interest due and accrued on mortgages	$6,639 27
Reinsurance due on account of claims	765 92
Gross assets	$872,795 37

Deduct Assets Not Admitted.

Premiums in course of collection written prior to October 1, 1911	2,694 44
Admitted assets, accident department	$870,100 93
Admitted assets, life department	22,493,185 98
Total admitted assets	$23,363,286 91

LIABILITIES.

Losses and claims:	
Accident—Reported or in process of adjustment, $63,331; resisted, $16,904; net unpaid claims, except liability claims, $75,835; estimated expense of investigation and adjustment of unpaid claims, $1,000	$76,835 00
Health—Reported or in process of adjustment, $8,422; net unpaid claims, except liability claims, $8,422; estimated expense of investigation and adjustment of unpaid claims, $200	8,622 00
Total unpaid claims and expenses of settlement	$85,457 00
Unearned premiums at 50 per cent on risks running one year or less	586,432 10
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident, $80,496.72; health, $13,125.86	93,622 58
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued	2,256 98
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement	24,000 00
Advance premiums (100 per cent)	12,832 27
Total liabilities, accident department	$804,600 93
Total liabilities, life department	20,756,436 77
Total amount of all liabilities except capital	$21,561,037 70

Amount brought forward		$21,561,037 70
Capital actually paid up in cash	$1,000,000 00	
Surplus over all liabilities, including life department. $736,749.21	802,249 21	
Surplus as regards policyholders		1,802,249 21
Total liabilities		$23,363,286 91

EXHIBIT OF POLICIES.

	Accident.	Health.
In force December 31, 1910	$822,668 44	$194,660 08
Written or renewed during the year	1,531,741 34	396,721 45
Totals	$2,354,409 78	$591,381 53
Deduct expirations and cancellations	1,404,819 69	367,502 92
Balance	$949,590 09	$223,878 61
Deduct reinsured policies	484 50	120 00
Net in force December 31, 1911	$949,105 59	$223,758 61

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums.	Gross losses paid.
Accident	$254,967 56	$91,497 97
Health	59,409 91	31,116 92
Totals	$314,377 47	$122,614 89

THE PENN MUTUAL LIFE INSURANCE COMPANY.

No. 921 Chestnut street, Philadelphia, Pa.

(Incorporated 1847. Commenced business in California, 1888.)

George K. Johnson, President. John Humphreys, Secretary.

Agent for service in California: Edward H. Hart, San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year		$113,905,917 51

INCOME.

First year's premiums on original policies, less reinsurance	$2,484,958 98	
Surrender values to pay first year's premiums	18,955 27	
Dividends applied to purchase paid-up additions and annuities	166,509 64	
Surrender values applied to purchase paid-up insurance and annuities	229,805 05	
Consideration for original annuities involving life contingencies	502,329 05	
Consideration for supplementary contracts involving life contingencies	9,021 02	
Total new premiums		$3,411,579 01
Renewal premiums less reinsurance	$14,601,603 60	
Dividends applied to pay renewal premiums	1,599,648 86	
Surrender values applied to pay renewal premiums	17,410 32	
Renewal premiums for deferred annuities	6,252 97	
Total renewal premiums		16,224,915 75
Total premium income		$19,636,494 76

Consideration for supplementary contracts not involving life contingencies		$409,101 97
Dividends left with the company to accumulate at interest		14,833 09
Interest on mortgage loans	$2,447,857 61	
Interest on collateral loans	87,078 21	
Interest on bonds and dividends on stocks	1,999,200 04	
Interest on premium notes, policy loans or liens	1,028,978 48	
Interest on deposits	86,083 75	
Interest on other debts due the company	10,683 61	
Discount on claims paid in advance	458 01	
Rents, including $54,000 for company's occupancy of its own buildings	151,427 88	
Total interest and rents		5,811,767 59
From other sources: Bonuses on mortgages, $12,756.89; loss upon Omaha, Neb., Harris property, recovered, $1,500		14,256 89
Profit on sale or maturity of ledger assets		51,782 82
Total income		$25,937,787 12
Total		$139,843,704 63

DISBURSEMENTS.

Death claims and additions	$5,557,328 45	
Matured endowments and additions	1,799,859 43	
Total death claims and endowments		$7,357,187 88
Annuities involving life contingencies		339,521 29
Premium notes and liens voided by lapse, less $17,911.92 restorations		53,018 91
Surrender values paid in cash, or applied in liquidation of loans or notes		2,315,310 82
Surrender values applied to pay new and renewal premiums		36,365 59
Surrender values applied to purchase paid-up insurance and annuities		229,805 05
Dividends paid policyholders in cash, or applied in liquidation of loans or notes*		568,613 19
Dividends applied to pay renewal premiums*		1,599,648 86
Dividends applied to purchase paid-up additions and annuities*		166,509 64
Left with the company to accumulate at interest*		14,383 09
Total paid policyholders		$12,680,364 32
Expense of investigation and settlement of policy claims, including legal expenses		5,385 73
Supplementary contracts not involving life contingencies		240,652 49
Dividends with interest held on deposit surrendered during the year		970 50
Commissions to agents		2,134,229 73
Commuted renewal commissions		115,782 71
Compensation of managers and agents not paid by commissions or new business		866 64
Agency supervision and traveling expenses of supervisors		24,142 91
Branch office expenses		117,430 30
Medical examiners' fees and inspection of risks		143,115 11
Salaries and all other compensation of officers and home employees		443,498 86
Rent, including company's occupancy of its own buildings		134,631 34
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange		123,755 41
Legal expense		14,778 90
Furniture, fixtures and safes		14,443 72
Repairs and expenses (other than taxes) on real estate		49,734 59
Taxes on real estate		25,909 11
State taxes on premiums		271,089 40
Insurance department licenses and fees		17,321 69

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*In addition to the above abatements the company allotted to deferred distribution policies the sum of $1,151,539.14 (which is carried in liabilities), making the total apportionment of surplus during 1911, $3,500,693.92.

Amount brought forward	$16.558.103 46
All other licenses, fees and taxes	282,848 49
Other disbursements	57.706 86
Agents' balances charged off	4,581 19
Loss on sale or maturity of ledger assets	12,725 00
Decrease in book value of ledger assets	45,683 07
Total disbursements	$16,961,648 07
Balance	$122.882.056 56

LEDGER ASSETS.

Book value of real estate	$1,897,841 82
Mortgage loans on real estate	48,427,440 75
Loans secured by collaterals	1,587.213 48
Loans on company's policies assigned as collateral	17.440.775 58
Premium notes on policies in force	3,005,325 03
Book value of bonds and stocks	47.260,970 00
Cash in office	8,191 35
Deposits in trust companies and banks on interest	2.908,575 40
Bills receivable	229,387 56
Agents' balances, net	7,545 41
Bills receivable for premiums	108.790 18
Total ledger assets	$122.882,056 56

Non-Ledger Assets.

Interest due and accrued on mortgages	$831,278 68	
Interest due and accrued on bonds	694,175 45	
Interest due and accrued on collateral loans	18.794 42	
Interest due and accrued on premium notes, loans or liens	13,758 43	
Interest due and accrued on other assets	3,388 79	
Rents due and accrued on company's property	6,783 98	
		1.568.179 75
Market value of bonds and stocks over book value		89.804 99
Due from other companies for losses or claims on policies reinsured		50.000 00
Net uncollected and deferred premiums, new business, $71.547.96; renewals, $2.155.502.13		2.227.050 09
Checks for annuities, issued in advance but not delivered		8.968 38
Secured profits on real estate under contracts of sale		29.236 18
Gross assets		$126.855.295 95

Deduct Assets Not Admitted.

Agents' debit balances	$7.545 41	
Cash advanced to or in hands of officers or agents (all to agents)	229.387 56	
Bills receivable for premiums	108.790 18	
Premium notes or loans on policies and net premiums in excess of value of their policies	19.128 50	
Book value of ledger assets over market value: Interest on bills receivable	3.388 79	
Total		368.240 44
Admitted assets		$126.487.055 51

LIABILITIES.

Net present value of outstanding policies: Actuaries, 4 per cent; and American, 3½ per cent; American, 3 per cent; computed by the Pennsylvania Insurance Department	$96.139.030 00	
Same for reversionary additions	1.301.620 00	
Same for annuities (American, 3 per cent; and McClintock's 3½ per cent)	3.944,918 00	
Total	$101.385.568 00	
Deduct net value of risks reinsured	124.688 00	
Net reserve		$101.260.880 00

Present value of supplementary contracts not involving life contingencies		$2,376,070 00
Death losses in process of adjustment	$408,419 08	
Death losses and other policy claims resisted	4,924 74	
Total policy claims		413,343 82
Dividends left with the company to accumulate at interest		26,482 55
Premiums paid in advance, including surrender values so applied		70,106 28
Unearned interest and rent paid in advance		465,938 91
Commissions due agents on premium notes, when paid		40,912 72
Salaries, rents, office expenses, bills and accounts due or accrued		5,001 56
Medical examiners' and legal fees due or accrued		17,488 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		619,213 41
Dividends or other profits due policyholders		430,300 57
Dividends declared on or apportioned to annual dividend policies payable to policyholders during 1912		3,210,000 00
Dividends declared on or apportioned to deferred dividend policies payable to policyholders during 1912		576,596 47
Amounts set apart, apportioned, provisionally ascertained, calculated, declared or held awaiting apportionment upon deferred dividend policies		8,181,529 08
Trust deposits		7,384 00
Special 3 and 3½ per cent reserve		3,735,913 00
Matured endowments, left with the company at interest		27,723 49
Other liabilities, matured credits, awaiting proof		29,140 00
Total		$121,494,023 86
Unassigned funds (surplus)		4,993,031 65
Total liabilities		$126,487,055 51

PREMIUM NOTE ACCOUNT.

On hand December 31, 1910	$2,743,897 34	
Received during the year on new policies	43,959 06	
Received during the year on old policies	797,988 11	
Restored by revival of policies	17,911 92	
		$3,603,756 43
Deductions during the year as follows:		
Used in payment of losses and claims	$86,043 26	
Used in purchase of surrendered policies	141,409 80	
Voided by lapse (gross, including restorations)	70,930 83	
Used in payment of dividends to policyholders	105,331 43	
Redeemed by maker in cash	194,716 08	
Total reduction of premium note account		598,431 40
Balance note assets at end of the year		$3,005,325 03

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.	Number.	Amount.
Policies in force December 31, 1910			191,465	$499,563,062 00
Policies issued, revived, changed and increased during the year			21,439	73,134,301 00
Totals			212,904	$572,697,363 00
Deduct policies which have ceased to be in force during the year:				
By death	1,940	$5,597,396 00		
By maturity	741	1,800,819 00		
By expiry	1,790	4,523,964 00		
By surrender	3,467	11,768,145 00		
By lapse	4,734	13,816,647 00		
By decrease	----	2,640,295 00		
			12,672	40,147,266 00
Total policies in force at end of year 1911			200,232	$532,550,097 00
Reinsured				$2,118,000 00

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	6,977	$18,249,283 00
Policies issued during the year	649	2,516,717 00
Totals	7,626	$20,766,000 00
Deduct policies ceased to be in force	109	359,525 00
Policies in force December 31, 1911	7,517	$20,406,475 00
Losses and claims unpaid December 31, 1910	6	$19,094 00
Losses and claims incurred during the year	70	205,701 08
Totals	76	$224,795 08
Losses and claims settled during the year	66	206,505 08
Losses and claims unpaid December 31, 1911	10	$18,290 00
Premiums received		$779,965 89

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus.
Loading on actual premiums of the year (averaging 20.9 per cent of the gross premiums)	$4,172,978 12		
Insurance expenses incurred during the year	3,427,621 10		
Gain from loading		$745,357 02	
Interest earned during the year	$5,956,244 68		
Investment expenses incurred during the year	635,082 05		
Net income from investments	$5,321,162 63		
Interest required to maintain reserve	3,328,483 00		
Gain from interest		1,992,679 63	
Expected mortality on net amount at risk	$5,678,621 89		
Actual mortality on net amount at risk	3,728,370 46		
Gain from mortality		1,950,251 43	
Expected disbursements to annuitants	$196,301 78		
Net actual annuity claims incurred	271,976 29		
Loss from annuities		------------	$75,674 51
Total gain during the year from surrendered and lapsed policies		250,946 11	
Decrease in surplus on dividend account		------------	3,421,276 57
Increase in special funds, and special reserves during the year		------------	1,327,367 00
Net to loss account		------------	2,519 60

Investment Exhibit.

	Gain in surplus.	Loss in surplus.
Total gains from stocks and bonds	177,597 85	
Total losses from stocks and bonds	------------	58,408 07
Gain from mortgage bonuses and property loss recovered	14,256 89	
Loss from suspended bank balance	------------	538 05

		Gain in surplus	Loss in surplus.
Gain from assets not admitted		$59,697 59	
Gain from all other sources		50,000 00	
Due for reinsurance		26,640 60	
Total gains and losses in surplus during year		$5,267,427 12	$4,885,776 60
Surplus December 31, 1910	$4,611,381 13		
Surplus December 31, 1911	4,993,031 65		
Increase in surplus (entered in column to balance)		------------	381,650 52
Totals		$5,267,427 12	$5,267,427 12

PHŒNIX MUTUAL LIFE INSURANCE COMPANY.

No. 49 Pearl street, Hartford, Connecticut.

(Incorporated May, 1851.)

JOHN M. HOLCOMBE, President. SILAS H. CORNWELL, Secretary.

Agent for service in California: JEAN C. DE KOLTY, San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year		$29,319,397 25

INCOME.

First year's premiums on original policies, less reinsurance	$601,690 46	
Surrender values to pay first year's premiums	6,638 02	
Dividends applied to purchase paid-up additions and annuities	124,864 31	
Surrender values applied to purchase paid-up insurance and annuities	104,883 45	
Consideration for original annuities involving life contingencies	72,792 33	
Consideration for supplementary contracts involving life contingencies	13,874 00	
Total new premiums		$924,742 57
Renewal premiums less reinsurance	$3,643,973 31	
Dividends applied to pay renewal premiums	450,386 60	
Dividends applied to shorten the endowment or premium-paying period	868 00	
Surrender values applied to pay renewal premiums	17,858 06	
Total renewal premiums		4,113,585 97
Total premium income		$5,038,328 54
Consideration for supplementary contracts not involving life contingencies		20,429 00
Dividends left with the company to accumulate at interest		73,851 19
Interest on mortgage loans	$958,904 48	
Interest on bonds and dividends on stocks	313,901 98	
Interest on premium notes, policy loans or liens	209,066 40	
Interest on deposits	13,428 42	
Interest on other debts due the company	240 04	
Discount on claims paid in advance	385 76	
Rents, including $15,000 for company's occupancy of its own buildings	48,827 86	
Total interest and rents		1,544,754 94
Mortgage loan commissions received	$6,298 01	
Guarantee of mortgage loans	223 78	
		6,521 79

Amount brought forward		$6,693,865 46
Agents' balances previously charged off		5,934 90
Profit on sale or maturity of ledger assets		6,386 17
Increase in book value of ledger assets		2,876 75
Total income		$6,699,083 28
Total		$36,018,480 53

DISBURSEMENTS.

Death claims and additions	$1,356,489 91	
Matured endowments and additions	465,179 08	
Total death claims and endowments		$1,821,668 99
Annuities involving life contingencies		18,180 19
Premium notes and liens voided by lapses		430 80
Surrender values paid in cash, or applied in liquidation of loans or notes		549,358 63
Surrender values applied to pay new and renewal premiums		24,496 08
Surrender values applied to purchase paid-up insurance and annuities		104,883 45
Dividends paid policyholders in cash, or applied in liquidation of loans or notes		51,632 99
Dividends applied to pay renewal premiums		450,886 60
Dividends applied to shorten the endowment or premium-paying period		868 00
Dividends applied to purchase paid-up additions and annuities		124,864 31
Left with the company to accumulate at interest		73,851 19
Total paid policyholders		$3,221,121 23
Expense of investigation and settlement of policy claims, including legal expenses		1,362 83
Supplementary contracts not involving life contingencies		8,632 26
Dividends with interest, held on deposit surrendered during the year		27,648 37
Commissions to agents		515,154 55
Commuted renewal commissions		14,946 93
Agency supervision and traveling expenses of supervisors		26,077 36
Branch office expenses		161,474 75
Medical examiners' fees and inspection of risks		54,359 98
Salaries and all other compensation of officers and home employees		169,809 04
Rent, including company's occupancy of its own buildings		15,375 00
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange		57,813 10
Legal expense		2,588 10
Furniture, fixtures and safes		12,221 58
Repairs and expenses (other than taxes) on real estate		28,040 12
Taxes on real estate		5,488 40
State taxes on premiums		58,009 43
Insurance department licenses and fees		6,550 48
All other licenses, fees and taxes		91,708 12
Other disbursements: Home office traveling expenses, miscellaneous, mortgage loan, commissions paid on loans per Schedule I		43,511 09
Loss on sale or maturity of ledger assets		11,032 16
Decrease in book value of ledger assets		34,716 89
Total disbursements		$4,567,641 77
Balance		$31,450,838 76

LEDGER ASSETS.

Book value of real estate	$719,943 00
Mortgage loans on real estate	19,186,232 73
Loans on company's policies assigned as collateral	4,178,857 87
Premium notes on policies in force	93,673 06
Book value of bonds and stocks	6,712,682 25
Cash in office	474 68
Deposits in trust companies and banks on interest	551,987 67
Agents' balances	6,987 50
Total ledger assets	$31,450,838 76

Amount brought forward			$31,450,838 76
Non-Ledger Assets.			
Interest due and accrued on mortgages		$393,491 44	
Interest due and accrued on bonds		46,789 79	
Interest due and accrued on premium notes, loans or liens		22,143 48	
Interest due and accrued on other assets		5 56	
			$462,430 27
Market value of real estate over book value			6,500 00
Market value of bonds and stocks over book value			2,522 35
	New business.	Renewals.	
Net uncollected and deferred premiums	$43,067 42	$364,812 24	407,879 66
Gross assets			$32,330,171 04
Deduct Assets Not Admitted.			
Agents' debit balances		$6,987 50	
Premium notes or loans on policies and net premiums in excess of value of their policies		1,059 00	
			8,046 50
Admitted assets			$32,322,124 54

LIABILITIES.

Net present value of outstanding policies: Actuaries, 4 per cent; and American, 3½ per cent; American, 3 per cent; computed by the company	$28,566,741 00	
Same for reversionary additions	942,654 00	
Same for annuities	317,644 00	
Total	$29,827,039 00	
Deduct net value of risks reinsured	131,350 00	
Net reserve		$29,695,689 00
Present value of supplementary contracts not involving life contingencies		47,495 00
Surrender values claimable on policies canceled		14,789 60
Death losses in process of adjustment	$9,769 00	
Death losses incurred for which no proofs have been received	60,000 00	
Total policy claims		69,769 00
Dividends left with the company to accumulate at interest		176,036 16
Premiums paid in advance, including surrender values so applied		25,615 31
Unearned interest and rent paid in advance		105,004 21
Commissions to agents due or accrued		8,535 17
Salaries, rents, office expenses, bills and accounts due or accrued		2,428 17
Medical examiners' and legal fees due or accrued		4,081 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		61,315 29
Dividends or other profits due policyholders		52,085 03
Dividends declared on or apportioned to annual dividend policies payable to policyholders during 1912		750,788 03
Dividends declared on or apportioned to deferred dividend policies payable to policyholders during 1912		33,133 52
Amounts set apart, apportioned, provisionally ascertained, calculated, declared or held awaiting apportionment upon deferred dividend policies		69,658 09
Contingent deferred term dividends	$16,926 83	
Reserve for special paid-up option	5,000 00	
		21,926 83
Unassigned funds (surplus)		1,183,775 13
Total liabilities		$32,322,124 54

PREMIUM NOTE ACCOUNT.

On hand December 31, 1910	$105,812 42	
Received during the year on new policies	2,279 00	
		$108,091 42
Deductions during the year as follows:		
Used in payment of losses and claims	$10,086 82	
Used in purchase of surrendered policies	376 15	
Voided by lapse	430 80	
Used in payment of dividends to policyholders	23 19	
Redeemed by maker in cash	3,501 40	
Total reduction of premium note account		14,418 36
Balance note assets at end of the year		$93,673 06

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.	Number.	Amount.
Policies in force December 31, 1910			67,342	$126,350,616 00
Policies issued, revived, changed and increased during the year			9,212	19,116,483 00
Totals			76,554	$145,467,099 00
Deduct policies which have ceased to be in force during the year:				
By death	750	$1,302,694 00		
By maturity	263	466,179 00		
By expiry	465	683,624 00		
By surrender	965	2,372,624 00		
By lapse	2,011	4,297,037 00		
By decrease	---	447,725 00		
			4,454	9,569,883 00
Total policies in force at end of year 1911			72,100	$135,897,216 00
Reinsured			182	$2,054,132 00

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	1,904	$3,867,653 00
Policies issued during the year	345	791,993 00
Totals	2,249	$4,659,646 00
Deduct policies ceased to be in force	143	297,309 00
Policies in force December 31, 1911	2,106	$4,362,337 00
Total losses and claims incurred and settled during the year	21	$41,855 79
Premiums received less $13,458.77 actually applied in abatement of premiums		161,514 40

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus.
Loading on actual premiums of the year (averaging 20.2 per cent of the gross premiums)	$1,029,707 52		
Insurance expenses incurred during the year	1,159,401 47		
Loss from loading			$129,693 95
Interest earned during the year	$1,566,289 38		
Investment expenses incurred during the year	120,363 82		
Net income from investments	$1,445,925 56		
Interest required to maintain reserve	1,054,833 15		
Gain from interest		$391,092 41	

		Gain in surplus.	Loss in surplus.
Expected mortality on net amount at risk	$1,350,658 00		
Actual mortality on net amount at risk	840,626 00		
Gain from mortality		$510,032 00	
Expected disbursements to annuitants	$17,983 00		
Net actual annuity claims incurred	10,588 19		
Loss from annuities			$1,598 27
Total gain during the year from surrendered and lapsed policies		91,168 79	
Decrease in surplus on dividend account			773,824 99
Decrease in special funds, and special reserves during the year		476 37	
Net to gain account		5,934 90	
Investment Exhibit.			
Total gains from real estate		12,590 67	
Total losses from real estate			27,912 89
Total gains from stocks and bonds		295 50	
Total losses from stocks and bonds			28,886 66
Gain from assets not admitted		317 10	
Total gains and losses in surplus during the year		$1,011,907 74	$961,916 76
Surplus December 31, 1910	$1,133,784 15		
Surplus December 31, 1911	1,183,775 13		
Increase in surplus (enter in column to balance)			49,990 98
Totals		$1,011,907 74	$1,011,907 74

PITTSBURGH LIFE AND TRUST COMPANY.

Pittsburgh, Pennsylvania.

(Incorporated June 28, 1902. Commenced business in California, 1903.)

W. C. Baldwin, President. J. H. Mahan, Secretary.

Agent for service in California: Julia B. Stein, San Francisco.

CAPITAL.

Capital stock paid up in cash	$1,000,000 00	
Amount of ledger assets December 31st of previous year		$23,037,948 68

INCOME.

First year's premiums on original policies, less reinsurance	$322,890 31	
Dividends applied to purchase paid-up additions and annuities	36,439 12	
Surrender values applied to purchase paid-up insurance and annuities	41,160 00	
Total new premiums		$400,489 43
Renewal premiums less reinsurance	$2,281,294 18	
Dividends applied to pay renewal premiums	17,399 72	
Surrender values applied to pay renewal premiums	23,760 70	
Renewal premiums for deferred annuities	311 54	
Total renewal premiums		2,322,766 14
Total premium income		$2,723,255 57
Consideration for supplementary contracts not involving life contingencies		7,920 00

Amount brought forward		$2,731,175 57
Dividends left with the company to accumulate at interest		6,979 17
Interest on mortgage loans	$297,044 36	
Interest on collateral loans	592 75	
Interest on bonds and dividends on stocks	200,260 70	
Interest on premium notes, policy loans or liens	209,054 43	
Interest on deposits	7,823 95	
Interest on other debts due the company	255 53	
Rents, including $19,306.25 for company's occupancy of its own buildings	497,398 21	
Total interest and rents		1,212,429 93
From other sources: Health and accident premiums in connection with life policies, $4,372.17; profit and loss, $443.36; surrender values due unpaid, $83.71; suspension account, $438.70		5,337 94
Agents' balances previously charged off		6,775 30
Profit on sale or maturity of ledger assets		1,491 67
Increase in book value of ledger assets		8,374 09
Total income		$3,972,563 67
Total		$27,010,512 35

DISBURSEMENTS.

Death claims and additions	$1,248,928 99	
Matured endowments and additions	572,017 82	
Total death claims and endowments		$1,820,946 81
Annuities involving life contingencies		30,032 72
Surrender values paid in cash, or applied in liquidation of loans or notes		731,744 92
Surrender values applied to pay new and renewal premiums		23,760 70
Surrender values applied to purchase paid-up insurance and annuities		41,160 00
Dividends paid policyholders in cash, or applied in liquidation of loans or notes		158,088 91
Dividends applied to pay renewal premiums		17,399 72
Dividends applied to purchase paid-up additions and annuities		36,439 12
Left with the company to accumulate at interest		6,979 17
Total paid policyholders		$2,866,552 07
Expense of investigation and settlement of policy claims, including legal expenses		543 32
Supplementary contracts not involving life contingencies		6,570 00
Dividends with interest, held on deposit surrendered during the year		3,324 91
Interest or dividends to stockholders		100,000 00
Commissions to agents		153,744 40
Compensation of managers and agents not paid by commissions on new business		5,511 06
Agency supervision and traveling expenses of supervisors		53,446 44
Branch office expenses		9,578 43
Medical examiners' fees and inspection of risks		11,886 13
Salaries and all other compensation of officers and home employees		104,516 69
Rent, including company's occupancy of its own buildings		25,618 93
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange		40,599 42
Legal expense		12,281 99
Repairs and expenses (other than taxes) on real estate		118,480 69
Taxes on real estate		89,778 25
State taxes on premiums		23,183 55
Insurance Department licenses and fees		5,677 80
All other licenses, fees and taxes		10,509 73
Other disbursements: Health and accident disbursements, $5,107.97; interest paid on mortgage, $12,048.92; general expenses, $6,824.06; profit and loss, $7,393.91; commission on sale of real estate, $25,000.00; suspense account 1910, paid 1911, $299.87; deposit lease applies to rents, $7,500.00		64,174 73

Loss on sale or maturity of ledger assets	$13,429 34
Decrease in book value of ledger assets	5,411 21
Total disbursements	$3,724,819 09
Balance	$23,285,693 26

LEDGER ASSETS.

Book value of real estate	$7,082,697 99
Mortgage loans on real estate	7,374,787 00
Loans secured by collaterals	3,000 00
Loans on company's policies assigned as collateral	4,024,316 83
Premium notes on policies in force	88,112 17
Book value of bonds and stocks	4,376,138 62
Cash in office	3,009 88
Deposits in trust companies and banks not on interest	5,855 95
Deposits in trust companies and banks on interest	296,599 13
Agents' balances	588 69
Washington Life Insurance Company stock, $24,887.00; contingent reversion, $5,700.00	30,587 00
Total ledger assets	$23,285,693 26

Non-Ledger Assets.

Interest due and accrued on mortgages		$78,005 98	
Interest due and accrued on bonds		51,329 25	
Interest due and accrued on premium notes, loans or liens		48,767 53	
Rents due and accrued on company's property		5,708 24	
			183,811 00
Market value of real estate over book value			448,108 06
	New business.	Renewals.	
Net uncollected and deferred premiums	$7,589 61	$258,689 16	266,275 77
Gross assets			$24,183,888 09

Deduct Assets Not Admitted.

Agents' debit balances	$588 69	
Premium notes or loans and net premiums in excess of value of their policies	6,869 52	
Overdue and accrued interest on bonds in default		7,458 21
Book value of ledger assets over market value		130,607 62
Total		$138,065 83
Admitted assets		$24,045,822 26

LIABILITIES.

Net present value of outstanding policies: Actuaries, 4 per cent; and American, 3½ per cent; American, 3 per cent; computed by the Pennsylvania Insurance Department	$20,700,417 00	
Same for reversionary additions	294,589 00	
Same for annuities	145,719 00	
Total	$21,140,725 00	
Deduct net value of risks reinsured	7,195 00	
	$21,133,530 00	
Reserve to provide for health and accident benefits contained in life policies	2,503 00	
Net reserve		$21,136,033 00
Present value of supplementary contracts not involving life contingencies		76,471 00

Amount brought forward		$21.212.504 00
Surrender values claimable on policies canceled		5.206 00
Death losses due and unpaid	$47,786 05	
Death losses in process of adjustment	46.923 70	
Death losses incurred for which no proofs have been received	99.837 23	
Matured endowments due and unpaid	20.425 25	
Total policy claims		214,972 23
Due and unpaid on supplementary contracts not involving life contingencies		250 00
Dividends left with the company to accumulate at interest		11,062 74
Premiums paid in advance, including surrender values so applied		20,186 06
Unearned interest and rent paid in advance		92,166 91
Commissions to agents due or accrued		11,284 09
Salaries, rents, office expenses, bills and accounts due or accrued		5.121 74
Medical examiners' and legal fees due or accrued		1.846 50
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		62,790 89
Dividends declared on or apportioned to annual dividend policies payable to policyholders during 1912		8.189 57
Amounts set apart, apportioned, provisionally ascertained, calculated, declared or held awaiting apportionment upon deferred dividend policies		28,010 11
Extra reserve for, including insurance in total abstinence class, $7.888.00; extra reserve for surrender (values in excess of the net value of their policies), $17.521.00; death claim (less reserve) notices received after December 31, 1911, $36,980.00		62,389 00
Surrender values due and unpaid, $632.58; suspense account, $438.70; health and accident claims pending, $5,000.00		6.071 28
Paid-up capital		1,000,000 00
Unassigned funds (surplus)		1,303,771 14
Total liabilities		$24,045,822 26

PREMIUM NOTE ACCOUNT.

On hand December 31, 1910	$90,344 69	
Received during the year on old policies	18,372 53	
Restored by revival of policies	24 24	
		$108,741 46
Deductions during the year as follows:		
Used in payment of losses and claims	$1,857 74	
Used in purchase of surrendered policies	3,738 69	
Redeemed by maker in cash	15,032 86	
Total reduction of premium note account		20,629 29
Balance note assets at end of the year		$88,112 17

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.	Number.	Amount.
Policies in force December 31, 1910			46,999	$79,923.972 00
Policies issued, revived, changed and increased during the year			5,278	17,795,409 00
Totals			52,277	$97,719,381 00
Deduct policies which have ceased to be in force during the year:				
By death	719	$1.325.155 00		
By maturity	328	597,868 00		
By expiry	282	264.497 00		
By surrender	1,552	2.944.102 00		
By lapse	1.261	3.934.477 00		
By decrease		914.364 00		
Totals			4.142	9,950.463 00
Total policies in force at end of year 1911			48,135	$87,768,918 00
Reinsured			22	$372,167 00

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	1,014	$2.489.463 00
Policies issued during the year	193	917.294 00
Totals	1,207	$3.406.757 00
Deduct policies ceased to be in force	151	571.246 00
Policies in force December 31,1911	1.056	$2.835.511 00
Losses and claims unpaid December 31, 1910	4	$1.990 00
Losses and claims incurred during the year	19	52.491 00
Totals	23	$54.481 00
Losses and claims settled during the year	20	49.441 00
Losses and claims unpaid December 31, 1911	3	5.040 00
Premiums received		$82.741 74

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus.
Loading on actual premiums of the year (averaging 20 per cent of the gross premiums)	$547,163 77		
Insurance expenses incurred during the year	462,273 54		
Gain from loading		$84.890 23	
Interest earned during the year	$1,177,331 94		
Investment expenses incurred during the year	266,316 21		
Net income from investments	$911,015 73		
Interest required to maintain reserve	776,884 00		
Gain from interest		134.131 73	
Expected mortality on net amount at risk	$979,131 00		
Actual mortality on net amount at risk	747.863 65		
Gain from mortality		231,267 35	
Expected disbursements to annuitants	$8.405 00		
Net actual annuity claims incurred	25.094 28		
Gain from annuities		33.499 28	
Total gain during the year from surrendered and lapsed policies		49.041 38	
Dividends paid stockholders			$100,000 00
Decrease in surplus on dividend account			219.527 31
Increase in special funds, and special reserves during the year			6.014 00
Net to loss account			6.950 55

Investment Exhibit.

		Gain in surplus.	Loss in surplus.
Total losses from real estate			3.952 59
Total gains from stocks and bonds		3,601 83	
Total losses from stocks and bonds			36,759 88
Agents' balance		6.775 30	
Gain, health and account business		4,446 20	
Loss, death claims (less reserve) notices received after December 13, 1911			36.980 00
Loss unaccounted for			1,683 38
Total gains and losses in surplus during the year		$547,653 30	$412,910 21
Surplus December 31, 1910	$1,169,028 05		
Surplus December 31, 1911	1,303,771 14		
Increase in surplus (enter in column to balance)			134.743 09
Totals		$547,653 30	$547.653 30

THE PROVIDENT LIFE AND TRUST COMPANY.

Fourth and Chestnut streets, Philadelphia, Pennsylvania.

(Incorporated March 22, 1865.)

Asa S. Wing, President. C. Walter Borton, Secretary.

Agent for service in California: Vail & Eldridge, San Francisco.

CAPITAL.

Capital stock paid up in cash	$1,000,000 00	
Amount of ledger assets December 31st of previous year		$68,663,481 55

INCOME.

First year's premiums on original policies, less reinsurance	$1,081,635 10	
Dividends applied to purchase paid-up additions and annuities	277,799 12	
Surrender values applied to purchase paid-up insurance and annuities	121,909 00	
Consideration for original annuities involving life contingencies	138,553 43	
Total new premiums		$1,619,896 65
Renewal premiums less reinsurance	$6,639,769 81	
Dividends applied to pay renewal premiums	1,063,873 92	
Renewal premiums for deferred annuities	208 35	
Total renewal premiums		7,703,852 08
Total premium income		$9,323,748 73
Consideration for supplementary contracts not involving life contingencies		97,658 39
Dividends left with the company to accumulate at interest		1,672 30
Interest on mortgage loans	$1,097,272 69	
Interest on collateral loans	27,723 15	
Interest on bonds and dividends on stocks	1,724,586 54	
Interest on premium notes, policy loans or liens	488,821 83	
Interest on deposits	3,563 11	
Interest on other debts due the company	1 99	
Discount on claims paid in advance	3,129 26	
Rents	84,801 41	
Total interest and rents	$3,429,899 98	
Less interest allowed on premiums paid in advance	15,392 48	
		$3,414,507 50
From other sources		18,462 68
Agents' balances previously charged off		800 00
Profit on sale or maturity of ledger assets		166,067 52
Total income		$13,022,917 12
Total		$81,686,398 67

DISBURSEMENTS.

Death claims and additions	$2,307,450 36	
Matured endowments and additions	2,686,362 20	
Total death claims and endowments		$4,993,812 56
Annuities involving life contingencies		103,225 41
Surrender values paid in cash, or applied in liquidation of loans or notes		911,325 28
Surrender values applied to purchase paid-up insurance and annuities		121,909 00
Dividends paid policyholders in cash, or applied in liquidation of loans or notes		251,369 33

Dividends applied to pay renewal premiums	$1,063,873 92
Dividends applied to purchase paid-up additions and annuities	277,799 12
Left with the company to accumulate at interest	1,672 30
Total paid policyholders	$7,724,968 92
Expense of investigation and settlement of policy claims, including legal expenses	7,719 62
Supplementary contracts not involving life contingencies	65,120 22
Commissions to agents	833,448 24
Compensation of managers and agents not paid by commissions on new business	10,000 08
Agency supervision and traveling expenses of supervisors	37,916 25
Branch office expenses	36,031 84
Medical examiners' fees and inspection of risks	58,923 63
Salaries and all other compensation of officers and home employees	426,834 73
Rent	32,804 71
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange	98,487 70
Legal expense	56,611 18
Furniture, fixtures and safes	9,369 76
Repairs and expenses (other than taxes) on real estate	45,285 89
Taxes on real estate	30,452 58
State taxes on premiums	113,513 03
Insurance Department licenses and fees	8,750 76
All other licenses, fees and taxes	18,199 95
Other disbursements	43,507 25
Loss on sale or maturity of ledger assets	2,380 15
Decrease in book value of ledger assets	298,432 54
Total disbursements	$9,958,777 03
Balance	$71,727,621 64

LEDGER ASSETS.

Book value of real estate	$1,563,737 69
Mortgage loans on real estate	22,969,727 68
Loans secured by collaterals	497,966 67
Loans on company's policies assigned as collateral	8,388,801 54
Premium notes on policies in force	1,733 24
Book value of bonds and stocks	38,263,191 61
Deposits in trust companies and banks on interest	42,463 21
Total ledger assets	$71,727,621 64

Non-Ledger Assets.

	New business.	Renewals.	
Interest due and accrued on mortgages		$310,451 31	
Interest due and accrued on bonds		537,177 00	
Interest due and accrued on collateral loans		1,712 51	
Interest due and accrued on premium notes, loans or liens		122,615 83	
Rents due and accrued on company's property		6,366 26	
			978,322 91
Market value of bonds and stocks over book value			2,670,490 39
Net uncollected and deferred premiums	$87,756 72	$1,049,754 28	1,137,511 00
Admitted assets			$76,513,945 94

LIABILITIES.

Net present value of outstanding policies: Actuaries, 4 per cent; and American, 3½ per cent; American, 3 per cent	$62,056,247 00	
Same for reversionary additions	2,044,952 00	
Same for annuities	1,031,091 00	
Net reserve		$65,132,290 00

Amount brought forward		$65,132,290 00
Present value of supplementary contracts not involving life contingencies		587,696 00
Surrender values claimable on policies canceled		42,070 83
Death losses due and unpaid	$66,853 37	
Death losses incurred for which no proofs have been received	66,530 00	
Matured endowments due and unpaid	27,801 00	
Death losses and other policy claims resisted	10,000 00	
Annuity claims, involving life contingencies, due and unpaid	325 12	
Totail policy claims		171,509 49
Dividends left with the company to accumulate at interest		1,676 44
Premiums paid in advance, including surrender values so applied		410,287 29
Unearned interest and rent paid in advance		66 58
Cost of collection on uncollected and deferred premiums in excess of loading		6,628 25
Salaries, rents, office expenses, bills, accounts due or accrued		3,404 34
Medical examiners' and legal fees due or accrued		1,702 50
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		158,204 14
Dividends or other profits due policyholders		137,397 27
Dividends declared on or apportioned to annual dividend policies payable to policyholders during 1912		791,000 00
Paid-up capital		1,000,000 00
Unassigned funds (surplus)		8,070,012 81
Total liabilities		$76,513,945 94

PREMIUM NOTE ACCOUNT.

On hand December 31, 1910	$2,123 87	
Received during the year on old policies	262 65	
		$2,386 52
Deductions during the year as follows:		
Used in payment of dividends to policyholders	490 50	
Redeemed by maker in cash	162 50	
Total reduction of premium note account		653 28
Balance note assets at end of the year		$1,733 24

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.	Number.	Amount.
Policies in force December 31, 1910			86,489	$232,749,676 00
Policies issued, revived, changed and increased during the year			12,759	37,864,775 00
Totals			99,248	$270,614,451 00
Deduct policies which have ceased to be in force during the year:				
By death	687	$2,222,977 00		
By maturity	928	2,689,482 00		
By surrender	1,497	3,958,752 00		
By lapse	2,416	7,069,871 00		
By decrease	----	1,354,360 00		
Totals			5,528	17,295,442 00
Total policies in force at end of year 1911			93,720	$253,319,009 00

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	2,893	$6,518,542 00
Policies issued during the year	537	1,479,910 00
Totals	3,430	$7,998,452 00
Deduct policies ceased to be in force	189	607,604 00
Policies in force December 31, 1911	3,241	$7,390,848 00
Losses and claims unpaid December 31, 1910	1	$45 00
Losses and claims incurred during the year	27	67,064 00
Totals	28	$67,109 00
Losses and claims settled during the year	24	61,064 00
Losses and claims unpaid December 31, 1911	4	$6,045 00
Premiums received		$256,066 82

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus.
Loading on actual premiums of the year (averaging 17.8 per cent of the gross premiums)	$1,660,737 91		
Insurance expenses incurred during the year	1,898,012 64		
Loss from loading		------------	$237,283 73
Interest earned during the year	$3,476,545 45		
Interest required to maintain reserve	2,483,757 52		
Gain from interest	------------	$992,787 93	
Expected mortality on net amount at risk	$2,353,316 12		
Actual mortality on net amount at risk	1,231,568 00		
Gain from mortality		1,121,748 12	
Expected disbursements to annuitants	$60,190 34		
Net actual annuity claims incurred	57,588 42		
Gain from annuities		2,601.92	
Total gain during the year from surrendered and lapsed policies		130,997 69	
Decrease in surplus on dividend account		------------	1,631,810 83
Increase in special funds, and special reserves during the year		19,262 68	

Investment Exhibit.

		Gain in surplus.	Loss in surplus.
Total gains from real estate		10,705 53	
Total losses from real estate		------------	66,294 90
Total gains from stocks and bonds		279,372 26	
Total losses from stocks and bonds		------------	234,517 79
Loss from all other sources: Change from actuaries' table, 4 per cent; interest to American table, 3½ per cent; interest in calculation of reserve on policies issued in 1901 and 1902		295,544 00	
Gains unaccounted for		6,394 13	
Total gains and losses in surplus during the year		$2,563,870 26	$2,465,440 25
Surplus December 31, 1910	$7,971,582 80		
Surplus December 31, 1911	8,070,012 81		
Increase in surplus (enter in column to balance)		------------	98,430 01
Totals		$2,563,870 26	$2,563,870 26

THE PRUDENTIAL INSURANCE COMPANY OF AMERICA.

No. 755 Broad street, Newark, New Jersey.

(Incorporated, 1873. Commenced business in California, 1901.)

Forrest F. Dryden, Vice-President. Edward Gray, Secretary.

Agent for service in California: O. O. Orr, San Francisco.

CAPITAL.

Capital stock paid up in cash	$2,000,000 00	
Amount of ledger assets December 31st of previous year		$220.551 76

INCOME.

First year's premiums on original policies, less reinsurance (ordinary)	$3,527,605 55	
Surrender values to pay first year's premiums (ordinary)	515 89	
Dividends applied to purchase paid-up additions and annuities (ordinary)	86,028 39	
Surrender values applied to purchase paid-up insurance and annuities (ordinary)	433,853 81	
Consideration for original annuities involving life contingencies	248,198 29	
Consideration for supplementary contracts involving life contingencies	17,278 10	
Total new premiums (ordinary)		$4,313,480 03
Renewal premiums less reinsurance (ordinary)	$21,473,411 32	
Dividends applied to pay renewal premiums (ordinary)	418,848 62	
Surrender values applied to pay renewal premiums (ordinary)	3,083 82	
Renewal premiums for deferred annuities	2,265 18	
Total renewal premiums (ordinary)		21,897,608 94
Total premium income (ordinary)		$26,211,088 97
Industrial premiums: (*a*) Cash, $42,011,442.05; (*b*) surrender values applied to purchase paid-up insurance and annuities, $990,273.89; (*c*) dividends applied to pay renewal premiums, $1,040,124.27; (*d*) dividends applied to purchase paid-up additions and annuities, $11,210.89		44,053,051 10
Total premium income		$70,264,140 07
Consideration for supplementary contracts not involving life contingencies		248,326 18
Gross interest on mortgage loans	$2,614,395 01	
Gross interest on collateral loans	149,036 49	
Gross interest on bonds and dividends on stocks	5,875,445 41	
Gross interest on premium notes, policy loans or liens	869,030 97	
Gross interest on deposits	210,571 44	
Gross interest on other debts due the company	12,349 88	
Gross rents, including $656,231.70 for company's occupancy of its own buildings	1,056,772 34	
Total gross interest and rents		10,787,601 54
Conscience fund		3 00
Gross profit on sale or maturity of ledger assets		44,715 27
Total income		$81,344,786 06
Total		$301,895,966 82

DISBURSEMENTS.

Death claims and additions	$18,470,830 23	
Matured endowments and additions	619,936 73	
Total death claims and endowments		$19,090,766 96
Annuities involving life contingencies		100,594 97
Surrender values paid in cash, or applied in liquidation of loans or notes		2,740,829 82
Surrender values applied to pay new and renewal premiums		3,599 71
Surrender values applied to purchase paid-up insurance and annuities		1,424,127 70
Dividends paid policyholders in cash, or applied in liquidation of loans or notes		2,162,283 32
Dividends applied to pay renewal premiums		1,458,972 89
Dividends applied to purchase paid-up additions and annuities		97,239 28
Total paid to policyholders		$27,078,414 65
Expense of investigation and settlement of policy claims, including legal expenses		36,136 40
Supplementary contracts not involving life contingencies		60,424 16
Interest or dividends to stockholders		200,000 00
Commissions to agents		10,345,807 70
Compensation of managers and agents not paid by commissions on new business		28,504 63
Agency supervision and traveling expenses of supervisors		316,001 65
Branch office expenses		3,397,404 59
Medical examiners' fees and inspection of risks		875,102 27
Salaries and all other compensation of officers and home employees		2,500,784 20
Rent, including company's occupancy of its own buildings		1,029,762 50
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange		548,489 28
Legal expense		51,178 44
Furniture, fixtures and safes		55,450 65
Repairs and expenses (other than taxes) on real estate		296,844 54
Taxes on real estate		257,757 13
State taxes on premiums		966,644 23
Insurance department licenses and fees		35,597 71
All other licenses, fees and taxes		1,164,001 26
Other disbursements		285,654 63
Gross loss on sale or maturity of ledger assets		21,171 47
Total disbursements		$49,551,132 09
Balance		$252,344,834 73

LEDGER ASSETS.

Book value of real estate	$18,111,451 34
Mortgage loans on real estate	57,191,010 14
Loans secured by collaterals (Schedule C)	2,721,500 00
Loans on company's policies assigned as collateral	15,494,361 48
Premium notes on policies in force	2,225,407 86
Book value of bonds and stocks (Schedule D)	147,623,026 38
Cash in office	6,825 15
Cash in transit from branch offices	175,015 64
Deposits in trust companies and banks not on interest	679,774 59
Deposits in trust companies and banks on interest	8,115,690 49
Agents' balances	771 66
Total ledger assets	$252,344,834 73

Amount brought forward			$252,344,834 73

Non-Ledger Assets.

Interest due and accrued on mortgages		$1,156,556 68	
Interest due and accrued on bonds		1,925,699 19	
Interest due and accrued on collateral loans		28,445 29	
Interest due and accrued on premium notes, loans or liens		114,320 57	
Interest due on bank balances		697 86	
Interest accrued on purchase price of property sold under contract		25 13	
Rents due and accrued on company's property		13,471 14	
			3,239,215 86
	New business.	Renewals.	
Net uncollected and deferred premiums (ordinary)	$540,803 96	$4,135,685 53	4,676,489 49
Net amount of uncollected premiums (industrial), gross, $423,782.86; deduct loading, $179,902.89			243,879 97
Stationery and printed matter			10,000 00
Furniture, fixtures and safes			50,000 00
Law libraries			9,027 46
Gross assets			$260,573,447 51

Deduct Assets Not Admitted.

Supplies, printed matter and stationery	$10,000 00	
Furniture, fixtures and safes	50,000 00	
Agents' debit balances	771 66	
Law libraries	9,027 46	
Book value of ledger assets over market value	1,678,670 38	
Total		1,748,469 50

Special deposits to secure liabilities in Virginia, par value, $60,000.00; market value, $52,800.00; Canada, par value, $720,000.00; market value, $735,100.00.

Admitted assets		$258,824,978 01

LIABILITIES.

Net present value of outstanding policies: Actuaries, 4 per cent; and American, 3½ per cent; American, 3 per cent; computed by the company	$200,231,717 00	
Same for reversionary additions	524,608 00	
Same for annuities	1,127,557 00	
Total	$201,883,882 00	
Deduct net value of risks reinsured	710,244 00	
Net reserve		$201,173,638 00
Present value of supplementary contracts not involving life contingencies		795,580 19
Surrender values claimable on policies canceled		425,692 00
Death losses in process of adjustment or adjusted and not due	$307,411 14	
Death losses incurred for which no proofs have been received	806,413 98	
Matured endowments due and unpaid	16,745 25	
Death losses and other policy claims resisted by the company	88,577 05	
Annuity claims, involving life contingencies, due and unpaid	4,500 00	
Total policy claims		1,219,192 42
Due and unpaid on supplementary contracts not involving life contingencies		1,435 00
Premiums paid in advance, including surrender values so applied		759,633 15
Unearned interest and rent paid in advance		460,711 97

Commissions due agents on premium notes, when paid	$2,659 11
Commissions to agents due or accrued	17,802 35
Salaries, rents, office expenses, bills and accounts due or accrued	98,359 88
Medical examiners' and legal fees due or accrued	156,612 27
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement	1,885,092 79
Unpaid dividends to stockholders	200,000 00
Dividends or other profits due policyholders	413,898 64
Dividends declared on or apportioned to annual dividend policies payable to policyholders during 1912	337,090 00
Dividends declared on or apportioned to deferred dividend policies payable to policyholders during 1912	4,002,414 00
Dividends declared on or apportioned to non-participating industrial policies payable to policyholders during 1912	410,640 00
Amounts set apart, apportioned, provisionally ascertained, calculated, declared or held awaiting apportionment upon deferred dividend policies	24,817,182 51
Reserve or surplus funds not otherwise included in liabilities, special reserve set aside prior to 1899 to prepare for a more stringent basis of reserve on industrial policies	1,000,000 00
Surrender values due and unpaid	71 82
Amount, including costs, decreed to stockholders by the Chancellor of the State of New Jersey (resisted by the company, case now pending on appeal before the Court of Errors and Appeals of the State of New Jersey)	2,510,892 50
Paid-up capital	2,000,000 00
Unassigned funds (surplus)	16,136,379 41
Total liabilities	$258,824,978 01

PREMIUM NOTE ACCOUNT.

On hand December 31, 1910	$1,930,551 63	
Received during the year on old policies	1,637,858 42	
Restored by revival of policies	73,456 13	
		$3,641,866 18
Deductions during the year as follows:		
Used in payment of losses and claims	$19,797 49	
Used in purchase of surrendered policies	291,287 29	
Used in payment of dividends to policyholders	2,143 86	
Redeemed by maker in cash	1,103,229 68	
Total reduction of premium note account		1,416,458 32
Balance note assets at end of the year		$2,225,407 86

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	611,468	$707,906,332 00
Policies issued, revived, changed and increased during the year	113,034	136,456,522 00
Totals	724,502	$844,362,854 00

Deduct policies which have ceased to be in force during the year:

	Number.	Amount.
By death	4,768	$5,535,047 00
By maturity	694	566,672 00
By expiry	28,617	30,438,138 00
By surrender	6,672	8,483,261 00
By lapse	17,616	19,341,784 00
By decrease	-----	1,241,992 00

	Number.	Amount.
Totals	58,367	65,606,894 00
Total policies in force at end of year 1911	666,135	$778,755,960 00
Reinsured	172	$5,259,050 00

EXHIBIT OF POLICIES.

Industrial.

	Number.	Amount.	Number.	Amount.
Policies in force December 31, 1910			8,957,170	$1,143,352,017 00
Policies issued, revived, changed and increased during the year			2,000,559	303,630,556 00
Totals			10,957,729	$1,446,982,573 00
Deduct policies which have ceased to be in force during the year:				
By death	116,233	$12,983,554 00		
By maturity	164	11,810 00		
By expiry	743	33,646 00		
By surrender	42,556	4,475,959 00		
By lapse	1,181,684	177,498,615 00		
By decrease	-------	12,235,609 00		
Totals			1,341,380	207,239,193 00
Total policies in force at end of year 1911			9,616,349	$1,239,743,380 00

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	7,546	$10,871,596 00
Policies issued during the year	2,480	3,235,635 00
Totals	10,026	$14,107,231 00
Deduct policies ceased to be in force	929	1,268,588 00
Policies in force December 31, 1911	9,097	$12,838,643 00
Losses and claims unpaid December 31, 1910	6	$15,000 00
Losses and claims incurred during the year	48	53,520 76
Totals	54	$68,520 76
Losses and claims settled during the year	49	56,494 76
Losses and claims unpaid December 31, 1911	5	$12,026 00
Premiums received		$426,934 68

BUSINESS IN CALIFORNIA.

Industrial.

	Number.	Amount
Policies in force December 31, 1910	41,164	$6,130,603 00
Policies issued during the year	32,425	4,711,452 00
Totals	73,589	$10,842,055 00
Deduct policies ceased to be in force	15,513	2,274,919 00
Policies in force December 31, 1911	58,076	$8,567,136 00
Losses and claims unpaid December 31, 1910	11	$1,638 25
Losses and claims incurred during the year	439	51,869 59
Totals	450	$53,507 84
Losses and claims settled during the year	433	51,690 14
Losses and claims unpaid December 31, 1911	17	$1,817 70
Premiums received		$263,536 49

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus.
Loading on gross premiums of the year (averaging 36.06 per cent of the gross premiums)	$25,479,569 59		
Insurance expenses incurred during the year	21,623,017 52		
Gain from loading		$3,856,552 07	
Interest earned during the year	$11,116,309 09		
Investment expenses incurred during the year	608,818 94		
Net income from investments	$10,507,491 05		
Interest required to maintain reserve	6,527,364 00		
Gain from interest		3,980,127 05	
Expected mortality on net amount at risk	$18,460,025 00		
Actual mortality on net amount at risk	15,210,671 62		
Gain from mortality		3,249,353 38	
Expected disbursements to annuitants	$65,493 09		
Net actual annuity claims incurred	47,484 97		
Gain from annuities		18,008 12	
Total gain during the year from surrendered and lapsed policies		2,109,502 92	
Dividends paid stockholders		-------------	$200,000 00
Decrease in surplus on dividend account		-------------	9,351,272 90
Investment Exhibit.			
Total gains from real estate		12,479 45	
Total losses from real estate		-------------	10,022 02
Total gains from stocks and bonds		3,489,851 86	
Total losses from stocks and bonds		-------------	5,147,435 87
Loss from assets not admitted		-------------	644 22
Loss on account of amount, including costs decreed to stockholders by the Chancellor of New Jersey		-------------	2,510,892 50
Total gains and losses in surplus during the year		$16,715,874 85	$17,220,267 51
Surplus December 31, 1910	$16,640,772 07		
Surplus December 31, 1911	16,136,379 41		
Decrease in surplus (enter in column to balance)		504,392 66	
Totals		$17,220,267 51	$17,220,267 51

RELIANCE LIFE INSURANCE COMPANY.

Fifth avenue and Wood street, Pittsburgh, Pennsylvania.

(Incorporated March 31, 1903.)

J. H. Reed, President. H. G. Scott, Secretary.

Agent for service in California: A. D. F. Reynolds, San Francisco.

CAPITAL.

Capital stock paid up in cash	$1,000,000 00	
Amount of ledger assets December 31st of previous year		$2,958,936 65

INCOME.

First year's premiums on original policies, less reinsurance, $8,251.45	$411.722 81	
Dividends applied to purchase paid-up additions and annuities	3,325 78	
Consideration for supplementary contracts involving life contingencies	5,564 75	
Total new premiums		$420.613 34
Renewal premiums less reinsurance, $14,551.31		613.945 69
Total premium income		$1,034.559 03
Interest on mortgage loans less $173.40 on 1911 mortgages	$51,185 70	
Interest on bonds and dividends on stocks less $3,513.34 on 1911 stocks and bonds	68.862 91	
Interest on premium notes, policy loans or liens	18.459 41	
Interest on deposits	3,291 39	
Interest on other debts due the company	1,031 88	
Rents	53 68	
Total interest and rents		142.884 97
Profit on sale or maturity of ledger assets		4.364 77
Total income		$1,181.808 77
Total		$4,140.745 42

DISBURSEMENTS.

Death claims and additions less $4,509 reinsurance	$145,986 22
Annuities involving life contingencies	700 00
Premium notes and liens voided by lapse	12,661 35
Surrender values paid in cash, or applied in liquidation of loans or notes	51.442 31
Dividends paid policyholders in cash, or applied in liquidation of loans or notes	5,374 70
Dividends applied to purchase paid-up additions and annuities	3,325 78
Total paid policyholders	$219.490 36
Expense of investigation and settlement of policy claims, including legal expenses	905 00
Commissions to agents	298,969 55
Agency supervision and traveling expenses of supervisors	31,232 90
Branch office expenses	168,552 34
Medical examiners' fees and inspection of risks	54,339 31
Salaries and all other compensation of officers and home employees	79,778 31
Rent, including company's occupancy of its own buildings	20,838 00
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange	53,233 12
Legal expense	3,072 34
Furniture, fixtures and safes	12,453 54
State taxes on premiums	9,865 53
Insurance department licenses and fees	15,910 55
Advertising statements and tax on office equipment	927 89
Other disbursements	6,178 02
Agents' balances charged off	10,371 26
Decrease in book value of ledger assets	805 95
Total disbursements	$986,923 97
Balance	$3,153,821 45

LEDGER ASSETS.

Book value of real estate	$4,652 54
Mortgage loans on real estate	$91,300 00
Loans secured by collaterals	800 00
Loans on company's policies assigned as collateral	199,558 07
Premium notes on policies in force	159,189 74
Book value of bonds and stocks	1,656,615 65
Cash in office	13,107 42
Deposits in trust companies and banks not on interest	38,902 06
Deposits in trust companies and banks on interest	36,473 27
Bills receivable	148,222 70
Judgment of record against Paul Bright of Wilmington, Delaware, entered October 28, 1911, Book P, Vol. 3, Newcastle County, Delaware	5,000 00
Total ledger assets	$3,153,821 45

Non-Ledger Assets.

	New business.	Renewals.	
Interest due and accrued on mortgages		$12,760 62	
Interest due and accrued on bonds		13,614 63	
Interest due and accrued on premium notes, loans or liens		3,930 85	
Interest due and accrued on other assets		211 64	
			30,517 74
Net uncollected and deferred premiums	$21,346 20	$121,213 22	142,559 42
Office furniture and fixtures			49,995 43
Gross assets			$3,376,894 04

Deduct Assets Not Admitted.

Furniture, fixtures and safes	$49,995 43	
Agents' debit balances	140,291 14	
Bills receivable	12,292 97	
Total		202,579 54
Admitted assets		$3,174,314 50

LIABILITIES.

Net present value of outstanding policies: American, 3½ per cent; American, 3 per cent; computed by the Pennsylvania Insurance Department	$1,858,715 00	
Same for reversionary additions	10,104 00	
Same for annuities	344 00	
Total	$1,869,163 00	
Deduct net value of risks reinsured	12,349 00	
Net reserve		$1,856,814 00
Present value of supplementary contracts not involving life contingencies		10,213 25
Death losses incurred for which no proofs have been received		18,500 00
Premiums paid in advance, including surrender values so applied		2,138 28
Unearned interest and rent paid in advance, policy loan		3,268 04
Commissions due agents on premium notes, when paid		3,183 79
Salaries, rents, office expenses, bills and accounts due or accrued		949 76
Medical examiners' and legal fees due or accrued		4,005 00
Total		$1,899,072 12
Paid-up capital		1,000,000 00
Unassigned funds (surplus)		275,242 38
Total liabilities		$3,174,314 50

PREMIUM NOTE ACCOUNT.

On hand December 31, 1910	$137,947 66	
Received during the year on old policies	127,273 15	
Restored by revival of policies	302 29	
		$265,523 10
Deductions during the year as follows:		
Used in payment of losses and claims	$5,587 10	
Used in purchase of surrender policies	14,907 97	
Voided by lapse	12,061 06	
Redeemed by maker in cash	73,777 23	
Total reduction of premium note account		106,333 36
Balance note assets at end of the year		$159,189 74

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.	Number.	Amount.
Policies in force December 31, 1910			12,393	$23,642,935 00
Policies issued, revived, changed and increased during the year			7,306	13,380,290 00
Totals			19,699	$37,023,225 00
Deduct policies which have ceased to be in force during the year:				
By death	73	$151,248 00		
By expiry	116	331,769 00		
By surrender	112	230,347 00		
By lapse	2,778	5,228,543 00		
By decrease	23	298,433 00		
Totals			3,102	6,240,340 00
Total policies in force at end of year 1911			16,597	$30,782,885 00
Reinsured			141	$1,147,051 00

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	93	$262,500 00
Policies issued during the year	323	717,668 00
Totals	416	$980,168 00
Deduct policies ceased to be in force	31	66,186 00
Policies in force December 31, 1911	385	$913,982 00
Losses and claims incurred during the year	1	5,000 00
Losses and claims unpaid December 31, 1911	1	5,000 00
Premiums received		$28,733 99

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus.
Loading on actual premiums of the year (averaging 33.1 per cent of the gross premiums)	$357,901 67		
Insurance expenses incurred during the year	757,089 08		
Loss from loading			$399,187 41
Net income from investments	$140,917 22		
Interest required to maintain reserve	51,645 53		
Gain from interest		$89,271 69	

		Gain in surplus.	Loss in surplus.
Expected mortality on net amount at risk	$256,148 00		
Actual mortality on net amount at risk	148,380 22		
Gain from mortality		$107,767 78	
Expected disbursements to annuitants	$688 32		
Net actual annuity claims incurred	700 00		
Loss from annuities			$11 68
Total gain during the year from surrendered and lapsed policies		40,955 34	
Decrease in surplus on dividend account			8,700 48
Net to loss account: Agents' balances charged off			10,371 26
Investment Exhibit.			
Total gains from stocks and bonds		4,364 77	
Total losses from stocks and bonds			805 95
Loss from assets not admitted			27,129 17
Total gains and losses in surplus during the year		$242,359 58	$446,205 95
Surplus December 31, 1910	$479,088 75		
Surplus December 31, 1911	275,242 38		
Decrease in surplus (enter in column to balance)		203,846 37	
Totals		$446,205 95	$446,205 95

SAN FRANCISCO LIFE INSURANCE COMPANY.

San Francisco, California.

(Incorporated June 17, 1910. Commenced business in California January 3, 1911.)

JOHN A. KOSTER, President. GORDON THOMSON, Secretary.

CAPITAL.

Capital paid up in cash	$250,000 00	
Amount of ledger assets December 31st of previous year		$304,205 67

INCOME.

First year's premiums on original policies, less reinsurance	$5,876 27	
Renewal premiums less reinsurance	13,265 83	
Total premium income		$69,142 10
Interest on mortgage loans	$1,281 80	
Interest on bonds and dividends on stocks	8,060 67	
Interest on premium notes, policy loans or liens	21 45	
Interest on deposits	192 64	
Interest on other debts due the company	329 41	
Total interest		9,885 97
Surplus from decrease of capital stock		138,500 00
Renewal premiums paid in advance		227 03
Payments on applications pending		283 31
Reserves business reinsured		35,956 90
Reserves business reinsured for revivals		150 00
Profit on sale or maturity of ledger assets		217 75
Increase in book value of ledger assets		321 76
Total income		$282,040 65
Total		$586,246 32

DISBURSEMENTS.

Death claims and additions	$2,500 00
Accident claims	104 30
Sickness claims	120 00
Surrender values paid in cash, or applied in liquidation of loans or notes	147 00
Coupons surrendered	420 51
Total paid policyholders	$3,291 81
Commissions to agents	36,333 33
Compensation of managers and agents not paid by commissions on new business	100 00
Agency supervision and traveling expenses of supervisors	1,287 39
Medical examiners' fees and inspection of risks	2,447 10
Salaries and all other compensation of officers and home employees	16,636 40
Rent, including company's occupancy of its own buildings	2,550 00
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange	5,788 64
Legal expense	460 85
Furniture, fixtures and safes	228 00
Insurance department licenses and fees	737 00
All other licenses, fees and taxes	157 44
Investment expense	233 00
Temporary deposit paid off, $32.28; caretaking, $52.35	84 63
Auditing and actual fees	425 00
Surety bond premiums	173 45
Decrease in book value of ledger assets	626 03
Total disbursements	$71,561 07
Balance	$514,685 25

LEDGER ASSETS.

Mortgage loans on real estate		$215,221 23
Loans on company's policies assigned as collateral		533 00
Book value of bonds and stocks		279,735 50
Cash in office		640 05
Deposits in trust companies and banks not on interest		9,180 12
Deposits in trust companies and banks on interest		4,546 28
Agents' balances		4,828 07
Furniture (nominal value)		1 00
Total ledger assets		$514,685 25
Non-Ledger Assets.		
Interest due and accrued on mortgages	$3,113 45	
Interest due and accrued on bonds	4,864 71	
		7,978 16
Net uncollected and deferred premiums, renewals		10,191 22
Gross assets		$532,854 63
Deduct Assets Not Admitted.		
Agents' debit balances	$4,828 07	
Book value of ledger assets over market value	467 98	
Total		5,297 05
Admitted assets		$527,557 58

LIABILITIES.

Net present value of outstanding policies: American, 3½ per cent; computed by the actuary and insurance department	$52,109 60	
Coupons and accrued interest thereon	8,342 38	
Total and permanent disability claims	342 01	
Total	$60,793 98	
Deduct net value of risks reinsured	1,336 10	
	$59,457 89	
Reserve to provide for health and accident benefits contained in life policies	2,291 55	
Net reserve		$61,749 44
Surrender values claimable on policies canceled		383 88
Premiums paid in advance, including surrender values so applied		227 03
Salaries, rents, office expenses, bills and accounts due or accrued		999 05
Medical examiners' and legal fees due or accrued		144 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		1,038 51
Reserve for reinstatements to reinsured business		150 00
Payments on applications pending		283 31
Paid-up capital		250,000 00
Unassigned funds (surplus)		212,582 36
Total liabilities		$527,557 58

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.	Number.	Amount.
Policies in force December 31, 1910			717	$1,841,210 00
Reinsured policies issued, revived, changed and increased during the year			372	1,371,320 00
Totals			1,089	$3,212,530 00
Deduct policies which have ceased to be in force during the year:				
By death	1	$2,500 00		
By surrender	1	3,680 00		
By lapse	35	99,040 00		
Totals			37	105,220 00
Total policies in force at end of year 1911			1,052	$3,107,310 00
Reinsured			51	$280,470 00

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Reinsured business	647	$1,670,990 00
Policies issued during the year	370	1,368,000 00
Totals	1,017	$3,038,990 00
Deduct policies ceased to be in force	37	105,220 00
Policies in force December 31, 1911	980	$2,933,770 00
Losses and claims incurred during the year	1	$2,500 00
Premiums received		69,162 67

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus.
Loading on actual premiums of the year (averaging 49½ per cent of the gross premiums)	$39,855 04		
Insurance expenses incurred during the year	68,798 56		
Loss from loading		------------	$28,943 52
Interest earned during the year	$17,559 86		
Investment expenses incurred during the year	2,186 33		
Net income from investments	$15,373 53		
Interest required to maintain reserve	653 00		
Gain from interest		$14,720 53	
Expected mortality on net amount at risk	$10,140 00		
Actual mortality on net amount at risk	2,300 00		
Gain from mortality		7,840 00	
Total gain during the year from surrendered and lapsed policies		169 91	
Increase in special funds, and special reserves during the year		------------	430 63
Net to profit and loss account		2,067 25	
Investment Exhibit.			
Total gains from stocks and bonds		217 75	
Total losses from stocks and bonds		------------	467 98
Loss from assets not admitted		------------	4,829 07
Gain from all other sources: Sale and decrease of capital stock		165,855 83	
Flux on reserves received on reinsured business		2,150 00	
Gain unaccounted for		26 62	
Total gains and losses in surplus during the year		$193,047 89	$34,671 20
Surplus December 31, 1910	$54,205 67		
Surplus December 31, 1911	212,582 36		
Increase in surplus (enter in column to balance)		------------	158,376 69
Totals		$193,047 89	$193,047 89

SCRANTON LIFE INSURANCE COMPANY.

Scranton, Pennsylvania.

(Incorporated October 31, 1908. Commenced business in California July 1, 1910.)

JAS. S. MCANULTY, President. WM. E. NAPIER, Secretary.

Agent for service in California: H. O. WINTER, San Francisco.

CAPITAL.

Capital stock paid up in cash	$300,000 00	
Amount of ledger assets December 31st of previous year		$790,380 08

INCOME.

First year's premiums on original policies, less reinsurance	$235,291 34	

Dividends applied to purchase paid-up additions and annuities	$273 86	
Surrender values applied to purchase paid-up insurance and annuities	711 01	
Total new premiums		$236,276 21
Renewal premiums less reinsurance	$412,277 44	
Dividends applied to pay renewal premiums	21,110 77	
Surrender values applied to pay renewal premiums	463 49	
Total renewal premiums		433,851 70
Total premium income		$670,127 91
Consideration for supplementary contracts not involving life contingencies		1,840 00
Dividends left with the company to accumulate at interest		30,397 31
Interest on mortgage loans	$16,640 14	
Interest on bonds and dividends on stocks	5,454 45	
Interest on premium notes, policy loans or liens	2,463 00	
Interest on deposits	9,054 11	
Discount on claims paid in advance, cash discount	299 53	
Total interest and rents		33,911 23
Miscellaneous items awaiting disposition, $1,082.56; premium on stock, $5,000.00		6,082 56
Total income		$742,259 01
Total		$1,532,639 09

DISBURSEMENTS.

Death claims and additions	$46,840 00
Premium notes and liens voided by lapse, less $10,615.47 restorations	3,619 85
Surrender values paid in cash, or applied in liquidation of loans or notes	8,376 22
Surrender values applied to pay new and renewal premiums	463 49
Surrender values applied to purchase paid-up insurance and annuities	711 01
Dividends paid policyholders in cash, or applied in liquidation of loans or notes	21,569 51
Dividends applied to pay renewal premiums	21,110 77
Dividends applied to purchase paid-up additions and annuities	273 86
Left with the company to accumulate at interest	30,297 31
Total paid policyholders	$133,262 02
Supplementary contracts not involving life contingencies	125 00
Interest or dividends to stockholders	18,120 35
Commissions to agents	212,316 15
Branch office expenses	700 00
Medical examiners' fees and inspection of risks	24,611 27
Salaries and all other compensation of officers and home employees	46,543 19
Rent, including company's occupation of its own buildings	4,769 00
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange	17,398 25
Legal expense	1,050 00
Furniture, fixtures and safes	1,891 55
State taxes on premiums	6,086 46
Insurance department licenses and fees	554 15
All other licenses, fees and taxes	2,644 32
Other disbursements: Executive committee fees, $274.00; mortgage appraisement fees, $57.50; premium on Fidelity bonds, $20.00; directors' fees, $1,092.00; insurance on furniture, $74.10; finance committee fees, $320.00; notary fees, $108.75; miscellaneous, $3,373.16; officers' traveling expense, $1,923.56	7,243 07
Total disbursements	$477,314 78
Balance	$1,055,324 31

LEDGER ASSETS.

Mortgage loans on real estate	$386.137 50
Loans on company's policies assigned as collateral	33,823 12
Premium notes on policies in force	10,861 75
Book value of bonds and stocks (Schedule D)	188.365 80
Cash in office	1.838 48
Deposits in trust companies and banks on interest	432,105 23
Agents' balances	753 17
Miscellaneous accounts	826 68
Advances	612 58
Total ledger assets	$1,055.324 31

Non-Ledger Assets.

	New business.	Renewals.	
Interest due and accrued on mortgages		$5,051 28	
Interest due and accrued on bonds		2,143 16	
Interest due and accrued on premium notes, loans or liens		11 86	
Interest due and accrued on other assets (deposits)		5,521 13	
			12.727 43
Net uncollected and deferred premiums	$19,897 00	$17.789 00	37,686 00
Gross assets			$1,105.737 74

Deduct Assets Not Admitted.

Agents' debit balances	$753 17	
Cash advanced to or in hands of officers and agents	612 58	
Premium notes or loans on policies and net premiums in excess of value of their policies	3,141 00	
Book value of ledger assets over market value: Miscellaneous accounts	826 68	
		5.333 43
Admitted assets		$1.100.404 31

LIABILITIES.

Net present value of outstanding policies: American, 3½ per cent; American, 3 per cent; computed by the Pennsylvania Insurance Department	$636.967 00	
Same for reversionary additions	604 00	
Total	$637.571 00	
Deduct net value of risks reinsured	1,650 00	
Total	$635,921 00	
Reserve to provide for total disability benefits contained in life policies	2,400 00	
Net reserve		$638.321 00
Present value of supplementary contracts not involving life contingencies		1.756 00
Death losses incurred for which no proofs have been received	$2.500 00	
Death losses and other policy claims resisted	15.000 00	
Total policy claims		17.500 00
Dividends left with the company to accumulate at interest		29.789 30
Premiums paid in advance, including surrender values so applied		1.096 67
Unearned interest and rent paid in advance		861 07
Commissions due agents on premium notes, when paid		923 24
Commissions to agents due or accrued		3.747 38
Salaries, rents, office expenses, bills and accounts due or accrued		260 49
Medical examiners' and legal fees due or accrued		950 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		6.917 89

Amount set apart, apportioned, provisionally ascertained, calculated, declared or held awaiting apportionment upon deferred dividend policies	$508 11
Miscellaneous credits awaiting disposition	1,082 56
Paid-up capital	300,000 00
Unassigned funds (surplus)	96,690 60
Total liabilities	$1,100,404 31

PREMIUM NOTE ACCOUNT.

On hand December 31, 1910	$9,302 91	
Received during the year on old policies	28,609 34	
Restored by revival of policies	10,615 47	
		$48,527 72
Deductions during the year as follows:		
Voided by lapse	$14,235 32	
Redeemed by maker in cash	23,430 65	
Total reduction of premium note account		37,665 97
Balance note assets at end of the year		$10,861 75

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.	Number.	Amount.
Policies in force December 31, 1910			5,983	$13,148,046 00
Policies issued, revived, changed and increased during the year			3,326	8,404,962 00
Totals			9,309	$21,553,008 00
Deduct policies which have ceased to be in force during the year:				
By death	31	$57,840 00		
By surrender	145	354,955 00		
By lapse	1,631	3,764,838 00		
By decrease	-----	164,181 00		
Totals			1,807	4,341,814 00
Total policies in force at end of year 1911			7,502	$17,211,194 00
Reinsured			32	$255,000 00

BUSINESS IN CALIFORNIA—ORDINARY.

	Number.	Amount.
Policies in force December 31, 1910	19	$49,500 00
Policies issued during the year	420	1,206,000 00
Totals	439	$1,255,500 00
Deduct policies ceased to be in force	46	108,500 00
Policies in force December 31, 1911	393	$1,147,000 00
Premiums received		$38,882 62

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus.
Loading on actual premiums of the year (averaging 43 per cent of the gross premiums)	$289,297 56		
Insurance expenses incurred during the year	322,446 99		
Loss from loading		------------	$33,149 43

		Gain in surplus.	Loss in surplus.
Interest earned during the year	$37,404 06		
Investment expenses incurred during the year	6,523 92		
Net income from investments	$30,880 14		
Interest required to maintain reserve	16,699 00		
Gain from interest		$14,181 14	
Expected mortality on net amount at risk	$141,000 00		
Actual mortality on net amount at risk	35,038 85		
Loss from charges and restorations			$460 61
Loss from charges and restorations			460 61
Total gain during the year from surrendered and lapsed policies		7,298 65	
Dividends paid stockholders			18,120 35
Decrease in surplus on dividend account			52,895 79
Increase in special funds, and special reserves during the year			200 00
Investment Exhibit.			
Gain: Premium on capital stock sold		5,000 00	
Gain from assets not admitted		3,977 47	
Gain unaccounted for		3,834 44	
Total gains and losses during the year		$120,253 35	$105,126 18
Surplus December 31, 1910	$81,563 43		
Surplus December 31, 1911	96,690 60		
Increase in surplus (enter in column to balances)			15,127 17
Totals		$120,253 35	$120,253 35

SECURITY LIFE INSURANCE COMPANY OF AMERICA.

The Rookery Building, Chicago, Illinois.

(Incorporated, 1902. Commenced business in California, 1909.)

W. O. Johnson, President. O. W. Johnson, Secretary.

Agent for service in California: C. B. Atwood, Los Angeles.

CAPITAL.

Capital stock paid up in cash	$500,000 00	
Amount of ledger assets December 31st of previous year		$2,074,753 11

INCOME.

First year's premiums on original policies, less $246.11 reinsurance	$115,403 27	
Dividends applied to purchase paid-up additions and annuities	57 30	
Surrender values applied to purchase paid-up insurance and annuities	4,081 41	
Consideration for supplementary contracts involving life contingencies	2,000 00	
Total new premiums		$121,541 98
Renewal premiums less $7,701.04 reinsurance	$376,519 20	
Surrender values applied to pay renewal premiums	100 00	
Total renewal premiums		376,619 20
Total premium income		$498,161 18

Dividends left with the company to accumulate at interest		$119 98
Interest on mortgage loans	$22,550 42	
Interest on collateral loans	5,981 16	
Interest on bonds and dividends on stocks	27,170 14	
Interest on premium notes, policy loans or liens	20,115 41	
Interest on deposits	3,407 66	
Interest on assets, special	3,392 20	
Interest on miscellaneous	475 27	
Total interest		83,092 26
From other sources: Earned portion collected on lapsed notes, $1,857.37; penalties received from agents, $166.13; recovery under surety bonds, $250.00		2,273 50
Profit on sale or maturity of ledger assets		572 88
Total income		$584,219 80
Total		$2,658,972 91

DISBURSEMENTS.

Death claims and additions	$59,030 81
Annuities involving life contingencies, plus health indemnities, $251.42	918 99
Premium notes and liens voided by lapse, less $788.36 restorations	15,039 50
Surrender values paid in cash, or applied in liquidation of loans or notes	71,173 03
Surrender values applied to pay new and renewal premiums	100 00
Surrender values applied to purchase paid-up insurance and annuities	4,081 41
Dividends paid policyholders in cash, or applied in liquidation of loans or notes	4,274 65
Premiums refunded, plus interest	234 16
Dividends applied to purchase paid-up additions and annuities	57 30
Left with the company to accumulate at interest	119 98
Expense of investigation and settlement of policy claims, including $122.10 legal expenses	148 19
Supplementary contracts not involving life contingencies	12,187 95
Dividends with interest, held on deposit surrendered during the year	151 49
Commissions to agents	96,620 19
Compensation of managers and agents not paid by commissions on new business	4,533 42
Agency supervision and traveling expenses of supervisors	20,507 01
Branch office expenses	1,667 16
Medical examiners' fees and inspection of risks	9,216 35
Salaries and all other compensation of officers and home employees	43,157 03
Rent, including company's occupancy of its own buildings	9,778 95
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange	9,711 67
Legal expense	2,662 47
Furniture, fixtures and safes	1,198 68
State taxes on premiums	9,274 22
Insurance department licenses and fees	3,091 07
All other licenses, fees and taxes: Personal, $3,560.04; municipal, $1,767.20	5,327 24
Other disbursements: Officers traveling, $2,015.31; Fidelity bonds, $365.43; incidental office, $406.18; account of St. Mary's Academy, $1,935.89; other, $354.73; account investment, $50.00	5,118 54
Agents' balances charged off	18,992 23
Loss on sale or maturity of ledger assets	12,774 67
Total disbursements	$421,148 36
Balance	$2,237,824 55

LEDGER ASSETS.

Assets, special	$200.159 78
Mortgage loans on real estate	494,536 75
Loans secured by collaterals (Schedule C)	116,507 38
Loans on company's policies assigned as collateral	525.810 16
Premium notes on policies in force, $162.57 (first year premium)	38,915 59
Book value of bonds and stocks (Schedule D): Bonds, $669,883.61; stocks, $500.00	670,383 61
Cash in office	1,185 78
Deposits in trust companies and banks on interest	93,310 60
Bills receivable	16,000 84
Agents' balances: $73,251.15, debit; $346.93, credit, net	72,904 22
Municipal and other securities, $609.84; furniture and fixtures, $7.500.00	8.109 84
Total ledger assets	$2,237,824 55

Non-Ledger Assets.

Interest due and accrued on mortgages		$9,116 50	
Interest due and accrued on bonds		11,229 80	
Interest due and accrued on collateral loans		4,680 48	
Interest due and accrued on premium notes, loans or liens		2,500 00	
Interest due and accrued on other assets		24,490 50	
			52.017 28
Market value of bonds and stocks over book value			1,083 09
Due from other companies for losses or claims on policies reinsured			3,284 66
	New business.	Renewals.	
Net uncollected and deferred premiums	$1,258 57	$48,328 48	49.587 15
Gross assets			$2,343.796 63

Deduct Assets Not Admitted.

Furniture, fixtures and safes	$7,500 00	
Agents' debit balances	73,251 15	
Bills receivable	16,000 84	
Premium notes, $114.00; or loans on policies and net premiums, renewals, $675.00; inexcess of value of their policies	789 00	
Total		97.540 99
Admitted assets		$2,246.255 74

LIABILITIES.

Net present value of outstanding policies: Actuaries, 4 per cent; and American, 3½ per cent; American, 3 per cent; computed by the Insurance Department:		
Same for revisionary additions, American experience table, 3½ per cent	$1.243.799 00	
Same for annuities, American experience table, 3½ per cent	15.158 00	
Total	$1.258.957 00	
Deduct net value of risks reinsured	6.460 00	
Reserve to provide for health and accident benefits contained in life policies	750 00	
Net reserve		$1,253.247 00
Present value of supplementary contracts not involving life contingencies		10.331 00
Surrender values claimable on policies canceled		86 51
Death losses in process of adjustment	$2.430 25	
Death losses incurred for which no proofs have been received	1,078 00	
Death losses and other policy claims resisted	18.574 58	
Total policy claims		22,082 83

Dividends left with the company to accumulate at interest	$171 91
Premiums paid in advance, including surrender values so applied	1,026 06
Unearned interest and rent paid in advance	2,560 00
Commissions due agents on premium notes, when paid	364 00
Salaries, rents, office expenses, bills and accounts due or accrued	961 28
Medical examiners' and inspection fees due or accrued	3,021 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement	9,997 00
Paid-up capital	500,000 00
Unassigned funds (surplus)	442,407 15
Total liabilities	$2,246,255 74

PREMIUM NOTE ACCOUNT.

On hand December 31, 1910	$54,657 78	
Received during the year on new policies	125 90	
Received during the year on old policies	48,846 87	
Restored by revival of policies	788 36	
		$104,418 91
Deductions during the year as follows:		
Used in purchase of surrendered policies	$3,044 72	
Voided by lapse	14,608 68	
Redeemed by maker in cash	47,849 92	
Total reduction of premium note account		65,503 32
Balance note assets at end of the year		$38,915 59

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.	Number.	Amount.
Policies in force December 31, 1910			5,932	$15,077,402 00
Policies issued, revived, changed and increased during the year			2,274	4,739,457 00
Totals			8,206	$19,816,859 00
Deduct policies which have ceased to be in force during the year:				
By death	25	$69,777 00		
By expiry	63	202,128 00		
By surrender	210	693,111 00		
By lapse	1,472	3,256,303 00		
By decrease	132	468,201 00		
Totals			1,902	4,689,520 00
Total policies in force at end of year 1911			6,304	$15,127,339 00

BUSINESS IN CALIFORNIA.

Ordinary.

Policies in force December 31, 1910	267	$865,500 00
Policies issued during the year	116	200,830 00
Totals	383	$1,066,330 00
Deduct policies ceased to be in force	233	536,300 00
Policies in force December 31, 1911	250	$530,000 00
Losses and claims unpaid December 31, 1910	1	$2,000 00
Losses and claims incurred during the year	6	7,810 40
Totals	7	$9,810 40
Losses and claims settled during the year	7	9,810 40
Premiums received		$32,421 22

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus.
Loading on actual premiums of the year (averaging 25.22 per cent of the gross premiums)	$132,221 06		
Insurance expenses incurred during the year	239,970 11		
Loss from loading		------------	$107,749 05
Interest earned during the year	$94,759 37		
Investment expenses incurred during the year	1,985 89		
Net income from investments	$92,773 48		
Interest required to maintain reserve	43,015 00		
Gain from interest		$49,758 48	
Expected mortality on net amount at risk	$157,651 00		
Actual mortality on net amount at risk	65,221 67		
Gain from mortality		92,429 33	
Expected disbursements to annuitants	$529 50		
Net actual annuity claims incurred	651 50		
Loss from annuities		------------	122 00
Total gain during the year from surrendered and lapsed policies		13,828 22	
Decrease in surplus on dividend account		------------	4,458 04
Net to loss account		------------	32,243 81

Investment Exhibit.

		Gain in surplus.	Loss in surplus.
Total gains from stocks and bonds		9,825 76	
Total losses from stocks and bonds		------------	12,774 67
Gain from assets not admitted		7,285 25	
Gain unaccounted for		314 23	
Total gains and losses in surplus during the year		$173,441 27	$157,347 57
Surplus December 31, 1910	$426,313 45		
Surplus December 31, 1911	442,407 25		
Increase in surplus (enter in column to balance)		------------	16,093 70
Totals		$173,441 27	$173,441 27

THE STATE LIFE INSURANCE COMPANY.

State Life Building, Indianapolis, Indiana.

(Incorporated September 5, 1894.)

H. W. BENNETT, President. W. S. WYNN, Secretary.

Agent for service in California: E. S. VALENTINE, San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year	$9,304,204 39

INCOME.

First year's premiums on original policies, less reinsurance	$241,148 61	
Surrender values to pay first year's premiums	398 35	
Dividends applied to purchase paid-up additions and annuities	948 54	
Surrender values applied to purchase paid-up insurance and annuities	18,821 23	
Total new premiums		$261,316 73
Renewal premiums less reinsurance	$1,921,109 30	
Dividends applied to pay renewal premiums	160,343 56	
Renewal premiums for deferred annuities	130 00	
Total renewal premiums		2,081,582 86
Total premium income		$2,342,899 59
Dividends left with the company to accumulate at interest		2,487 27
Interest on mortgage loans	$300,876 10	
Interest on bonds and dividends on stocks	8,968 56	
Interest on premium notes, policy loans or liens	140,822 24	
Interest on deposits	3,266 05	
Interest on other debts due the company	148 32	
Rents, including $12,694.68 for company's occupancy of its own buildings	104,348 27	
Total interest and rents		558,429 54
Agents' balances previously charged off		383 74
Total income		$2,904,200 14
Total		$12,208,404 53

DISBURSEMENTS.

Death claims and additions	$579,870 17	
Matured endowments and additions	7,000 00	
Total death claims and endowments		$586,870 17
Annuities involving life contingencies: Disability losses		30 63
Premium notes and liens voided by lapse		24,570 90
Surrender values paid in cash, or applied in liquidation of loans or notes		220,849 55
Surrender values applied to pay new and renewal premiums		398 35
Surrender values applied to purchase paid-up insurance and annuities		18,821 23
Dividends paid policyholders in cash, or applied in liquidation of loans or notes		18,035 12
Dividends applied to pay renewal premiums		160,343 56
Dividends applied to purchase paid-up additions and annuities		948 54
Left with the company to accumulate at interest		2,487 27
Total paid policyholders		$1,033,355 32
Expense of investigation and settlement of policy claims, including legal expenses		2,326 84
Supplementary contracts not involving life contingencies		1,967 75
Dividends with interest, held on deposit surrendered during the year		222 33
Commissions to agents		359,267 46
Compensation of managers and agents not paid by commissions on new business		7,137 02
Agency supervision and traveling expenses of supervisors		7,582 10
Branch office expenses		11,121 37
Medical examiners' fees and inspection of risks		19,778 61
Salaries and all other compensation of officers and home employees		131,325 70
Rent, including company's occupancy of its own buildings		22,026 04
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange		30,403 25
Legal expense		860 83

Amount brought forward	$1,627,414 71
Furniture, fixtures and safes	2,150 71
Repairs and expenses (other than taxes) on real estate	32,365 97
Taxes on real estate	13,710 90
State taxes on premiums	28,110 49
Insurance Department licenses and fees	8,175 46
All other licenses, fees and taxes	3,435 54
Other disbursements: Investment expense, $1,814.22; miscellaneous expenses, $1,404.13; discount on premiums, $5.71; voided note payments, $329.34	3,553 40
Agents' balances charged off	9,492 65
Loss on sale or maturity of ledger assets	80 00
Total disbursements	$1,728,449 74
Balance	$10,479,954 79

LEDGER ASSETS.

Book value of real estate	$995,737 12
Mortgage loans on real estate	6,199,909 28
Loans on company's policies assigned as collateral	2,714,487 42
Premium notes on policies in force	78,340 02
Book value of bonds and stocks	214,723 10
Cash in office	9,540 92
Deposits in trust companies and banks not on interest	225 98
Deposits in trust companies and banks on interest	215,254 84
Agents' balances	51,736 11
Total ledger assets	$10,479,954 79

Non-Ledger Assets.

Interest due and accrued on mortgages		$107,620 28	
Interest due and accrued on bonds		1,183 33	
Interest due and accrued on premium notes, loans or liens		783 40	
Interest due and accrued on other assets		300 00	
Rents due and accrued on company's property		1,239 14	
			111,126 15
Market value of real estate over book value			207,153 08
Due from other companies for losses or claims on policies reinsured			10,000 00
	New business.	Renewals.	
Net uncollected and deferred premiums	$8,893 81	$111,404 36	120,298 17
Unearned premiums for fire insurance in home office building			3,408 21
Gross assets			$10,931,940 40

Deduct Assets Not Admitted.

Agents' debit balances	$55,530 64	
Premium notes or loans on policies and net premiums in excess of value of their policies	11,385 50	
Book value of ledger assets over market value: Bonds	1,511 10	
Total		68,427 24
Admitted assets		$10,863,513 16

LIABILITIES.

Net present value of outstanding policies: Actuaries, 4 per cent; American, 3½ per cent; American, 3 per cent: computed by the Indiana Insurance Department	$8,986,711 00	
Same for reversionary additions	1,456 00	
Same for annuities	1,908 00	
Total	$8,990,075 00	
Deduct net value of risks reinsured	3,630 00	
Total	$8,986,445 00	
Reserve to provide for health and accident benefits contained in life policies	14,685 00	
Net reserve		$9,001,130 00

Present value of supplementary contracts not involving life contingencies		$35,026 00
Death losses in process of adjustment	$34,000 00	
Death losses incurred for which no proofs have been received	39,790 00	
Death losses and other policy claims resisted	8,000 00	
Total policy claims		81,790 00
Dividends left with the company to accumulate at interest		3,609 93
Premiums paid in advance, including surrender values so applied		14,018 55
Unearned interest and rent paid in advance		54,289 75
Commissions to agents due or accrued		8,571 89
Salaries, rents, office expenses, bills and accounts due or accrued		1,076 89
Medical examiners' and inspection and legal fees due or accrued		2,241 14
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		42,624 38
Dividends or other profits due policyholders		9,719 63
Dividends declared on or apportioned to annual dividend policies payable to policyholders during 1912		27,272 17
Dividends declared on or apportioned to deferred dividend policies payable to policyholders during 1912		9,577 35
Special surplus on "combination" policies		69,611 31
Unassigned funds (surplus)		1,502,954 17
Total liabilities		$10,863,513 16

PREMIUM NOTE ACCOUNT.

On hand December 31, 1910	$67,985 61	
Received during the year on old policies	183,140 99	
		$251,126 60
Deductions during the year as follows:		
Voided by lapse	$21,517 86	
Redeemed by maker in cash	151,268 72	
Total reduction of premium note account		172,786 58
Balance note assets at end of the year		$78,340 02

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.	Number.	Amount.
Policies in force December 31, 1910			26,824	$67,744,909 00
Policies issued, revived, changed and increased during the year			5,111	10,011,506 00
Totals			31,935	$77,756,415 00
Deduct policies which have ceased to be in force during the year:				
By death	201	$592,350 00		
By maturity	3	7,000 00		
By expiry	329	754,895 00		
By surrender	698	1,814,854 00		
By lapse	1,603	3,131,370 00		
Not taken	817	1,812,090 00		
Totals			3,651	8,112,559 00
Total policies in force at end of year 1911			28,284	$69,643,856 00
Reinsured			46	$308,000 00

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	370	$976.817 00
Policies issued during the year	279	941.039 00
Totals	649	$1,917,856 00
Deduct policies ceased to be in force	202	679,222 00
Policies in force December 31, 1911	447	$1.238.634 00
Losses and claims incurred during the year	1	$2.000 00
Losses and claims settled during the year	1	2.000 00
Premiums received		$48.722 47

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus.
Loading on actual premiums of the year	$567,385 76		
Insurance expenses incurred during the year	640,860 91		
Loss from loading			$73.475 15
Interest earned during the year	$579.996 99		
Investment expenses incurred during the year	64,204 75		
Net income from investments	$515,792 24		
Interest required to maintain reserve	283.854 00		
Gain from interest		$231.938 24	
Expected mortality on net amount at risk	$754,706 03		
Actual mortality on net amount at risk	505.116 63		
Gain from mortality		249,589 40	
Total gain during the year from surrendered and lapsed policies		7,525 85	
Dividends paid stockholders			188,063 89
Decrease in special funds, and special reserves during the year		12,010 11	
Net to loss account			9.108 91

Investment Exhibit.

		Gain in surplus.	Loss in surplus.
Total gains from stocks and bonds		267 00	
Total losses from stocks and bonds			80 00
Loss from assets not admitted			7.158 67
Loss unaccounted for			8.538 52
Total gains and losses in surplus during the year		$501.331 20	$286.425 14
Surplus December 31, 1910	$1.288.048 11		
Surplus December 31, 1911	1.502.954 17		
Decrease in surplus			214.906 06
Totals		$501.331 20	$501.331 20

THE TRAVELERS INSURANCE COMPANY.

(Life Department).

No. 700 Main street, Hartford, Connecticut.

(Incorporated June 17, 1863.)

SYLVESTER C. DUNHAM, President. LOUIS F. BUTLER, Secretary.

Agent for service in California: ARTHUR F. BRIDGE, San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year		$56,455,255 85

INCOME.

First year's premiums on original policies, less reinsurance	$1,091,758 65	
Surrender values to pay first year's premiums	648 13	
Dividends applied to purchase paid-up additions and annuities	20,265 00	
Surrender values applied to purchase paid-up insurance and annuities	22,681 30	
Consideration for original annuities involving life contingencies	101,815 01	
Consideration for supplementary contracts involving life contingencies	5,269 59	
Total new premiums		$1,242,437 68
Renewal premiums less reinsurance	$6,492,731 61	
Dividends applied to pay renewal premiums	36,531 82	
Surrender values applied to pay renewal premiums	1,931 66	
Renewal premiums for deferred annuities	678 27	
Total renewal premiums		6,531,873 36
Total premium income		$7,774,311 04
Consideration for supplementary contracts not involving life contingencies		573,613 79
Interest on mortgage loans	$1,223,620 31	
Interest on bonds and dividends on stocks	1,123,943 61	
Interest on premium notes, policy loans or liens	397,682 57	
Interest on deposits	5,982 87	
Interest on other debts due the company	127 01	
Interest on contracts for sale of real estate	1,913 84	
Discount on claims paid in advance	527 02	
Rents, including $62,404.10 for company's occupancy of its own buildings	84,857 29	
Total interest and rents		2,838,654 52
From other sources: Profit and loss, outstanding drafts not cashed, $79.18; miscellaneous, $63.58		142 76
Agents' balances previously charged off		10 00
Profit on sale or maturity of ledger assets		41,324 56
Increase in book value of ledger assets		117,134 20
Total income		$11,345,190 87
Total		$67,800,446 72

DISBURSEMENTS.

Death claims and additions	$2,603,772 02	
Matured endowments and additions	961,549 54	
Total death claims and endowments		$3,565,321 56
Annuities involving life contingencies		34,808 44
Total disability claims		261 09
Surrender values paid in cash, or applied in liquidation of loans or notes		744,942 19

Amount brought forward	$4,345,333 19
Surrender values applied to pay new and renewal premiums	2.579 79
Surrender values applied to purchase paid-up insurance and annuities	22,681 30
Dividends applied to pay renewal premiums	36,531 82
Dividends applied to purchase paid-up additions and annuities	20.265 00
Total paid policyholders	$4.427.391 19
Expense of investigation and settlement of policy claims, including legal expenses	3,549 53
Supplementary contracts not involving life contingencies	480.685 89
Interest or dividends to stockholders	250.000 00
Discount on premiums paid in advance	1.122 00
Commissions to agents	738.699 87
Commuted renewal commissions	9.888 00
Agency supervision and traveling expenses of supervisors	42.050 83
Branch office expenses	202,081 41
Medical examiners' fees and inspection of risks	77.786 50
Salaries and all other compensation of officers and home employees	211.647 07
Rent, including company's occupancy of its own buildings	85,685 80
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange	96.875 25
Legal expense	2.972 64
Furniture, fixtures and safes	17.041 51
Repairs and expenses (other than taxes) on real estate	19.957 26
Taxes on real estate	26.099 89
State taxes on premiums	102.853 18
Insurance Department licenses and fees	9.707 63
All other licenses, fees and taxes	13.673 72
Other disbursements: Heat, light and miscellaneous expense of offices, $10.880.55; newspapers, periodicals and books, $1.910.82; miscellaneous expense, $7.119.63; mortgage loan expense, $36.190.89; traveling expenses of home office employees, $10,844.05	66.945 94
Agents' balances charged off	201 05
Profit and loss: Outstanding drafts previously credited, $2.09; miscellaneous, $45.20	47 29
Loss on sale or maturity of ledger assets	33.248 00
Decrease in book value of ledger assets	243.816 79
Total disbursements	$7.164.028 24
Balance	$60.636.418 48

LEDGER ASSETS.

Home office real estate	$950.000 00
Book value of real estate	115.550 00
Mortgage loans on real estate	25.267.753 32
Loans on company's policies assigned as collateral	8.088.832 62
Book value of bonds and stocks	24.946.536 58
Cash in office	7.000 00
Deposits in trust companies and banks not on interest	778 34
Deposits in trust companies and banks on interest	1.259.967 62
Total ledger assets	$60.636.418 48

Non-Ledger Assets.

Interest due and accrued on mortgages		$469.371 97	
Interest due and accrued on bonds		399.766 29	
			869.138 26
Market value of bonds and stocks over book value			531.346 42
Net uncollected and deferred premiums	New business. $76.049 02	Renewals. $971.897 96	1.047.946 98
Gross assets			$63.084.850 14

Deduct Assets Not Admitted.

Overdue and accrued interest on bonds in default	54.870 83
Admitted assets	$63.029.979 31

LIABILITIES.

Net present value of outstanding policies: Actuaries, 4 per cent; and American, 3½ per cent; American, 3 per cent; computed by The Travelers	$53,617,532 00	
Same for reversionary additions	110,389 00	
Same for annuities	452,014 00	
Total	$54,179,935 00	
Deduct net value of risks reinsured	1.026.596 00	
Total	$53,153,339 00	
Reserve to provide for health and accident benefits contained in life policies	35.000 00	
Net reserve		$53.188.339 00
Present value of supplementary contracts not involving life contingencies		3.669.259 00
Surrender values claimable on policies canceled		20.000 00
Death losses in process of adjustment	$25,402 34	
Death losses incurred for which no proofs have been received	277.717 23	
Matured endowments due and unpaid	15,126 90	
Death losses and other policy claims resisted	2,437 09	
Total policy claims		320,683 56
Due and unpaid on supplementary contracts not involving life contingencies		640 00
Premiums paid in advance, including surrender values so applied		83.858 95
Unearned interest and rent paid in advance		198.841 29
Commissions to agents due or accrued		1.267 64
Salaries, rents, office expenses, bills and accounts due or accrued		35.763 00
Medical examiners' and legal fees due or accrued		7.026 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		104.942 00
Dividends or other profits due policyholders		5.266 85
Dividends declared on or apportioned to annual dividend policies payable to policyholders during 1912		55,397 59
Amounts set apart, apportioned, provisionally ascertained, calculated, declared or held awaiting apportionment upon deferred dividend policies		134.940 00
Reserve or surplus funds not otherwise included in liabilities: Additional for pro rata paid-up insurance values, $5,000.00; additional for deferred reversionary and miscellaneous annuity contracts, $15,000.00; special contingency reserve, $50,000.00		70.000 00
Premiums paid in advance on applications, restorations, or changes which have not been accepted by company		2.309 82
Unassigned funds (surplus)		5.131.444 61
Total liabilities		$63.029.979 31

EXHIBIT OF POLICIES.

Ordinary.

			Number.	Amount.
Policies in force December 31, 1910			91.799	$228.892.236 00
Policies issued, revived, changed and increased during the year			14,314	39.052.258 00
Totals			106,113	$267,944,494 00
Deduct policies which have ceased to be in force during the year:	Number.	Amount.		
By death	925	$2,840,798 00		
By maturity	407	987,676 00		
By expiry	401	1,195.147 00		
By surrender	1,561	4,354,848 00		
By lapse	3,328	8,836.441 00		
Totals			6,622	18.214.910 00
Total policies in force at end of year 1911			99,491	$249,729,584 00
Reinsured			782	$8.942.214 00

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	3,608	$8,732,836 00
Policies issued during the year	832	2,016,520 00
Totals	4,440	$10,749,356 00
Deduct policies ceased to be in force	311	789,239 00
Policies in force December 31, 1911	4,129	$9,960,117 00
Losses and claims unpaid December 31, 1910	4	$17,904 00
Losses and claims incurred during the year	19	85,091 21
Totals	23	$102,995 21
Losses and claims settled during the year	21	100,950 21
Losses and claims unpaid December 31, 1911	2	$2,045 00
Premiums received		$348,336 96

THE TRAVELERS INSURANCE COMPANY.

(Accident and Health Department).

No. 700 Main street, Hartford, Connecticut.

(Incorporated June 17, 1863.)

SYLVESTER C. DUNHAM, President. LOUIS F. BUTLER, Secretary.

Agent for service in California: ARTHUR F. BRIDGE, San Francisco.

CAPITAL.

Capital stock paid up in cash	$2,500,000 00	
Amount of ledger assets December 31st of previous year		$16,606,567 40

INCOME.

Accident—Gross premiums written and renewed during the year, $4,614,948.32; deduct reinsurance, $137,669.24; return premiums on policies canceled, $92,182.46; premiums on policies not taken, $573,533.40: Total deductions, $803,385.10	$3,811,563 22
Health—Gross premiums written and renewed during the year, $680,772.28; deduct reinsurance, $12,834.21; return premiums on policies canceled, $18,625.06; premiums on policies not taken, $105,892.52: Total deductions, $137,351.79	543,420 49
Liability—Gross premiums written and renewed during the year, $7,481,483.98; deduct reinsurance, $59,148.90; return premiums on policies canceled, $362,715.38; premiums on policies not taken, $776,744.59: Total deductions, $1,198,608.87	6,282,875 11
Workmen's collective—Gross premiums written and renewed during the year, $61,589.33; return premiums on policies canceled, $1,591.02; premiums on policies not taken, $4,040.20: Total deductions, $5,631.22	55,958 11
Total net premiums	$10,693,816 93

Inspections		$1,207 25
Interest on collateral loans	$17,285 13	
Bonds and dividends on stocks, $600,667.15; from other sources, $31,793.85	632,461 00	
Total interest		649,746 13
Profit and loss		342 87
Agents' balances previously charged off		1,068 22
Profit on sale or maturity of ledger assets		2,366 15
Increase in book value of ledger assets: Bonds (accrual of discount)		42,922 45
Total income		$11,391,470 00
Total		$27,998,037 40

DISBURSEMENTS.

Accident—Gross amount paid for losses, $1,704,873.29; deduct reinsurance, $97,335.85	$1,607,537 44
Health—Gross amount paid for losses, $217,722.17; deduct reinsurance, $8,020.96	209,701 21
Liability—Gross amount paid for losses	3,138,122 94
Workmen's collective—Gross amount paid for losses	34,389 05
Total net amount paid policyholders for losses	$4,989,750 64
Matured endowments and surrender values under ten premium accident policies	20,878 78
Investigation and adjustment of claims	1,084,902 70
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	2,617,082 38
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	401,160 59
Traveling expenses—home office	35,765 99
Salaries, traveling and all other expenses of agents not paid by commissions	509,624 82
Salaries, traveling and all other expenses of pay-roll auditors	108,047 95
Medical examiners' fees and salaries	29,755 16
Inspections (other than medical and claim)	205,939 06
Rents, including $27,234.21 (balance of life department statement) for company's occupancy of its own buildings	126,708 11
State taxes on premiums	149,269 97
Insurance Department licenses and fees	16,009 52
All other licenses, fees and taxes	195,741 50
Legal expenses	5,812 40
Advertising	67,549 80
Printing and stationery	67,371 58
Postage, telegraph, telephone and express	72,370 79
Furniture and fixtures	37,300 46
Stockholders for interest or dividends	375,000 00
Other disbursements: Heat and light and miscellaneous expenses of offices; newspapers, periodicals and books; exchange; miscellaneous expenses; profit and loss	39,372 79
Agents' balances charged off	1,560 67
Loss on sale or maturity of ledger assets	1,031 00
Decrease in book value of ledger assets: Bonds (amortization of premiums)	23,964 00
Total disbursements	$11,181,970 66
Balance	$16,816,066 74

LEDGER ASSETS.

Loans secured by pledge of bonds, stocks or other collaterals			$335,576 53
Book value of bonds and stocks (schedule D)			13,617,102 34
Cash in office			6,000 00
Cash at branch offices			82,858 82
Deposits in branch offices, trust companies and banks not on interest			295,439 65
Deposits in trust companies and banks on interest			806,206 24
Gross premiums in course of collection on policies or renewals:	Issued on or after Oct. 1, 1911.	Prior to Oct. 1. 1911.	
Accident	$358,378 31	$33,224 45	
Health	58,769 00	4,734 60	
Liability	866,281 99	266,398 35	
Workmen's collective	8,350 28	55 84	
Totals	$1,291,779 58	$304,413 24	1,596,192 82
Bills receivable			37,991 55
Agents' ledger balances			38,698 79
Ledger assets as per balance			$16,816,066 74

Non-Ledger Assets.

Interest due and accrued on:		
Bonds	$172,774 94	
Collateral loans	4,939 10	
		177,714 04
Market value of bonds and stocks over book value		319,046 66
Gross assets		$17,312,827 44

Deduct Assets Not Admitted.

Bills receivable	$37,991 55	
Agents' ledger balances	38,698 79	
Premiums in course of collection written prior to October 1, 1911	304,413 24	
Overdue and accrued interest on bonds in default	37,500 00	
Total		418,603 58
Total admitted assets		$16,894,223 86

LIABILITIES.

Losses and claims:		
Accident—Adjusted, $6,647.44; reported or in process of adjustment, $288,803.57; resisted, $65,910.00; net unpaid claims, except liability claims, $361,361.01; estimated expense of investigation and adjustment of unpaid claims, $18,068.05		$379,429 06
Health—Adjusted, $1,716.28; reported or in process of adjustment, $47,190.38; resisted, $2,700.00; net unpaid claims, except liability claims, $51,606.66; estimated expense of investigation and adjustment of unpaid claims, $2,580.33		54,186 99
Workmen's collective—Adjusted, $1,064.70; reported or in process of adjustment, $9,465.37; net unpaid claims, except liability claims, $10,530.07; estimated expense of investigation and adjustment of unpaid claims, $526.51		11,056 58
Net unpaid claims, except liability claims		$444,672 63
Special reserve for unpaid liability losses		3,397,036 00
Total unpaid claims and expenses of settlement		$3,841,708 63
Unearned premiums at 50 per cent on risks running one year or less	$4,214,165 69	
Unearned premiums, pro rata on risks running more than one year	548,875 25	
Total unearned premiums		4,763,040 94

Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident, $107,513.49; health, $14,692.25; liability, $199,244.86; workmen's collective, $1,753.56		$323,204 16
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		152,459 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		302,592 00
Advance premiums (100 per cent)		6,739 55
Other liabilities: Reserve, accident, contingent fund; reserve, accident, accumulations; reserve, liability, excess limits; reserve, claims incurred on or before December 31, 1911, notices of which were received subsequently; accident, health, workmen's collective		592,673 65
Total amount of all liabilities, except capital		$9,982,417 93
Capital actually paid up in cash	$2,500,000 00	
Surplus over all liabilities	4,411,805 93	
Surplus as regards policyholders		6,911,805 93
Total liabilities		$16,894,223 86

EXHIBIT OF PREMIUMS.

	Accident.	Health.	Liability.
In force December 31, 1910	$3,107,816 25	$454,221 46	$4,722,448 08
Written or renewed during the year	4,614,948 32	680,772 28	7,481,483 98
Totals	$7,722,764 57	$1,134,993 74	$12,203,932 06
Deduct expirations and cancellations	4,352,863 33	635,109 78	7,128,754 84
Balance	$3,369,901 24	$499,883 96	$5,075,177 22
Deduct reinsured policies	49,252 21	5,822 48	58,889 04
Net in force December 31, 1911	$3,320,649 03	$494,061 48	$5,016,288 18

	Workmen's collective.
In force December 31, 1910	$6,969 18
Written or renewed during the year	61,589 33
Totals	$68,558 51
Deduct expirations and cancellations	58,888 57
Net in force December 31, 1911	$9,669 94

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Accident	$225,657 30	$93,357 93
Health	17,666 05	4,839 44
Liability	592 75	--------
Totals	$243,916 10	$98,197 37

UNION CENTRAL LIFE INSURANCE COMPANY.

No. 353 West Fourth street, Cincinnati, Ohio.

(Incorporated 1867. Commenced business in California, 1867.)

JESSE R. CLARK, President. JOHN D. SAGE, Secretary.

Agent for service in California: R. L. STEPHENSON, San Francisco.

CAPITAL.

Capital stock paid up in cash	$500,000 00	
Amount of ledger assets December 31st of previous year		$77,959,164 81

INCOME.

First year's premium on original policies, less reinsurance	$1,278,741 38	
Surrender values to pay first year's premiums	32 57	
Dividends applied to purchase paid-up additions and annuities	322,029 73	
Surrender values applied to purchase paid-up insurance and annuities	69,854 76	
Consideration for original annuities involving life contingencies	5,465 50	
Total new premiums		$1,676,123 94
Renewal premiums less reinsurance	$8,155,128 56	
Dividends applied to pay renewal premiums	1,004,757 43	
Surrender values applied to pay renewal premiums	111,546 40	
Total renewal premiums		9,271,432 39
Total premium income		$10,947,556 33
Consideration for supplementary contracts not involving life contingencies		146,806 00
Dividends left with the company to accumulate at interest		448 51
Interest on mortgage loans	$3,980,249 57	
Interest on bonds and dividends on stocks	500 00	
Interest on premium notes, policy loans or liens	910,120 79	
Interest on deposits	21,438 97	
Discount on claims paid in advance	2,084 74	
Rents, including $11,600 for company's occupancy of its own buildings	21,653 03	
Total interest and rents		4,936,047 10
Gross profit from compromise and adjustment of mortgage loans		59,141 15
Profit on sale or maturity of ledger assets		11,224 27
Total income		$16,101,223 36
Total		$94,060,388 17

DISBURSEMENTS.

Death claims and additions	$2,522,425 87	
Matured endowments and additions	2,193,947 60	
Total death claims and endowments		$4,716,373 47
Annuities involving life contingencies		22,970 85
Premium notes and liens voided by lapse, less $30,637.86, restorations		114,141 62
Surrender values paid in cash, or applied in liquidation of loans or notes		1,116,947 51
Surrender values applied to pay new and renewal premiums		111,578 97
Surrender values applied to purchase paid-up insurance and annuities		69,854 76
Dividends paid policyholders in cash, or applied in liquidation of loans or notes		90,679 87

Dividends applied to pay renewal premiums	$1,004,757 43
Dividends applied to purchase paid-up additions and annuities	322,029 73
Left with the company to accumulate at interest	448 51
Total paid policyholders	$7,569,782 72
Expense of investigation and settlement of policy claims, including legal expenses	5,578 13
Supplementary contracts not involving life contingencies	96,036 12
Interest or dividends to stockholders	50,000 00
Commissions to agents	1,090,318 05
Commuted renewal commissions	32,809 00
Agency supervision and traveling expenses of supervisors	40,308 21
Branch office expenses	44,123 29
Medical examiners' fees and inspection of risks	67,417 96
Salaries and all other compensation of officers and home employees	378,992 96
Rent, including company's occupancy of its own buildings	40,439 01
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange	72,478 70
Legal expenses	45,457 68
Furniture, fixtures and safes	10,213 89
Repairs and expenses (other than taxes) on real estate	4,672 95
Taxes on real estate	12,168 39
State taxes on premiums	172,813 15
Insurance Department licenses and fees	29,665 66
All other licenses, fees and taxes	25,542 90
Other disbursements: General expense, home office, $24,044.20; traveling expense, home office, $10,420.77; mortgage loan expense, expense of making new investments, $298,565.78; mortgage expense, expense of maintaining mortgage investments, $62,812.98; profit and loss, loss on mortgage loans, $799.63, bad accounts, $5,969.95	402,613 31
Dividend held to credit of stockholders awaiting decision of quo warranto suit	100,000 00
Loss on sale or maturity of ledger assets	5,071 40
Total disbursements	$10,296,503 48
Balance	$83,763,884 69

LEDGER ASSETS.

Book value of real estate	$515,732 89
Mortgage loans on real estate	67,264,725 82
Loans on company's policies assigned as collateral	13,099,925 56
Premium notes on policies in force	2,119,963 54
Book value of bonds and stocks	25,000 00
Cash in office	5,610 38
Deposits in trust companies and banks not on interest	33,820 22
Deposits in trust companies and banks on interest	699,106 28
Total ledger assets	$83,763,884 69

Non-Ledger Assets.

Interest due and accrued on mortgages		$2,509,189 54	
Interest due and accrued on bonds		125 00	
Interest due and accrued on premium notes, loans or liens		489,025 58	
Rents due and accrued on company's property		860 00	
			2,999,200 12
Market value of bonds and stocks over book value			62 50
	New business.	Renewals.	
Net uncollected and deferred premiums	$9,993 58	$516,480 59	526,474 17
Gross assets			$87,289,621 48

Deduct Assets Not Admitted.

Book value of real estate over market value	51,698 11
Total admitted assets	$87,237,923 37

LIABILITIES.

Net present value of outstanding policies: Actuaries, 4 per cent; and American, 3½ per cent; American, 3 per cent; computed by the company	$37,027,724 00	
Same for reversionary additions	32,806,378 00	
Same for annuities	190,149 00	
Total	$70,024,251 00	
Deduct net value of risks reinsured	631,893 00	
Net reserve		$69,392,358 00
Present value of supplementary contracts not involving life contingencies		917,577 00
Death losses due and unpaid	$2,500 00	
Death losses in process of adjustment	18,108 57	
Death losses incurred for which no proofs have been received	108,362 27	
Matured endowments due and unpaid	4,771 62	
Death losses and other policy claims resisted	13,189 58	
Total policy claims		146,932 04
Due and unpaid on supplementary contracts not involving life contingencies		1,000 00
Dividends left with the company to accumulate at interest		773 01
Premiums paid in advance, including surrender values so applied		96,812 48
Unearned interest and rent paid in advance		114,624 93
Commissions due agents on premium notes, when paid		258,539 58
Commissions to agents due or accrued		209 45
Cost of collection on uncollected and deferred premiums in excess of loading		2,619 81
Salaries, rents, office expenses, bills and accounts due or accrued		3,149 00
Medical examiners' and legal fees due or accrued		10,450 64
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		179.810 96
Dividends or other profits due policyholders		96,031 12
Dividends declared on or apportioned to annual dividend policies payable to policyholders during 1912		1,843,704 53
Dividends declared on or apportioned to deferred dividend policies payable to policyholders during 1912		879.555 00
Amounts set apart, apportioned, provisionally ascertained, calculated, declared or held awaiting apportionment upon deferred dividend policies		9,622.431 00
Reserve or surplus funds not otherwise included in liabilities: Fire loss proceeds held subject to reconstruction of buildings, $205.00; deposits for abstracts temporarily loaned, $2.525.00; interest on loans contracted for in 1912, $7.585.03; principal payments received on account of loans contracted for in 1912, $3,136.77		13.451 80
Surplus derived from non-participating policies		1.064.929 93
Paid-up capital		500.000 00
Unassigned funds (surplus) derived from participating policies		2,092.962 20
Total liabilities		$87,237.923 37

PREMIUM NOTE ACCOUNT.

On hand December 31, 1910	$2,035,735 49	
Received during the year on new policies	1,034,081 24	
Received during the year on old policies	4,748,691 38	
		$7,818,508 11
Deductions during the year as follows:		
Used in payment of losses and claims	$26,140 91	
Used in purchase of surrendered policies	21,468 03	
Voided by lapse	144,779 48	
Redeemed by maker in cash	5,506,156 15	
Total reduction of premium note account		5,698,544 57
Balance note assets at end of the year		$2,119,963 54

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.	Number.	Amount.
Policies in force December 31, 1910			154,987	$303,013,280 00
Policies issued, revived, changed and increased during the year			15,842	38,332,277 00
Totals			170,829	$341,345,557 00
Deduct policies which have ceased to be in force during the year:				
By death	1,269	$2,649,210 00		
By maturity	1,300	2,129,175 00		
By expiry	979	1,736,252 00		
By surrender	1,729	4,387,174 00		
By lapse	3,160	8,168,800 00		
By decrease	----	815,580 00		
Totals			8,437	19,886,191 00
Total policies in force at end of year 1911			162,392	$321,459,366 00
Reinsured				$7,563,044 00

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	2,166	$5,741,061 00
Policies issued during the year	351	994,700 00
Totals	2,517	$6,735,761 00
Deduct policies ceased to be in force	108	305,417 00
Policies in force December 31, 1911	2,409	$6,430,344 00
Losses and claims unpaid December 31, 1910	2	$5,198 00
Losses and claims incurred during the year	27	81,673 90
Totals	29	$86,871 90
Losses and claims settled during the year	28	81,871 90
Losses and claims unpaid December 31, 1911	1	$5,000 00
Premiums received		$278,164 45

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus.
Loading on actual premiums of the year (averaging 20.30 per cent of the gross premiums)	$2,235,817 40		
Insurance expenses incurred during the year	2,128,486 30		
Gain from loading		$107,331 10	
Interest earned during the year	$5,094,487 79		
Investment expenses incurred during the year	401,488 19		
Net income from investments	$4,692,999 60		
Interest required to maintain reserve	2,564,700 17		
Gain from interest		2,128,299 43	
Expected mortality on net amount at risk	$2,970,854 00		
Actual mortality on net amount at risk	1,738,046 47		
Gain from mortality		1,232,807 53	
Expected disbursements to annuitants	$12,301 00		
Net actual annuity claims incurred	20,221 85		
Loss from annuities			$7,920 85
Total gain during the year from surrendered and lapsed policies		101,228 39	
Dividends paid stockholders			50,000 00
Decrease in surplus on dividend account			2,875,530 37
Increase in special funds, and special reserves during the year			153,872 65
Net to loss account			5,969 95
Investment Exhibit.			
Total gains from real estate		11,224 27	
Total losses from real estate			51,430 38
Total losses from stocks and bonds			187 50
Compromise and adjustment of mortgage loans		58,341 52	
Additional reserve on certain policies and annuities			210,992 00
Total gains and losses in surplus during the year		$3,639,232 24	$3,355,903 70
Surplus December 31, 1910	$1,809,633 66		
Surplus December 31, 1911	2,092,962 20		
Increase in surplus (enter in column to balance)			283,328 54
Totals		$3,639,232 24	$3,639,232 24

UNION MUTUAL LIFE INSURANCE COMPANY.

No. 396 Congress street, Portland, Maine.

(Incorporated July 17, 1848. Commenced business in California October 1, 1849.)

FRED E. RICHARDS, President. J. FRANK LANG, Secretary.

Agent for service in California: W. C. LEAVITT, San Francisco.

CAPITAL.

Amount of ledger assets December 31st of previous year	$16,704,766 30

INCOME.

First year's premiums on original policies, less reinsurance	$170,764 28	
Dividends applied to purchase paid-up additions and annuities	39,227 27	
Surrender values applied to purchase paid-up insurance and annuities	19,274 82	
Total new premiums		$229,266 37
Renewal premiums less reinsurance	$1,951,971 39	
Dividends applied to pay renewal premiums	63,592 41	
Surrender values applied to renewal premiums	6,197 36	
Total renewal premiums		2,021,761 16
Total premium income		$2,251,027 53
Consideration for supplementary contracts not involving life contingencies		4,220 00
Dividends left with the company to accumulate at interest		1,791 23
Interest on mortgage loans	$64,098 97	
Interest on collateral loans	47,815 17	
Interest on bonds and dividends on stocks	519,775 72	
Interest on premium notes, policy loans or liens	82,140 80	
Interest on deposits	4,479 16	
Interest on other debts due the company	1,394 28	
Discount on claims paid in advance	144 27	
Rents, including $10,300.00 for company's occupancy of its own buildings	47,527 80	
Total interest and rents		767,376 17
Borrowed money		125,000 00
Profit and loss, miscellaneous		2,969 83
Profit on sale or maturity of ledger assets		41,624 26
Total income		$3,194,009 02
Total		$19,898,775 32

DISBURSEMENTS.

Death claims and additions	$784,813 14	
Matured and discounted endowments and additions	207,278 32	
Total death claims and endowments		$992,091 46
Annuities involving life contingencies		2,378 03
Premium notes and liens voided by lapse, less $2,621.14 restorations		15,312 58
Loans to policyholders this company's policies as collateral, voided by lapse, less $13,772.10 restorations		113,787 18
Surrender values paid in cash, or applied in liquidation of loans or notes		310,306 11
Surrender values applied to pay new and renewal premiums		6,197 36
Surrender values applied to purchase paid-up insurance and annuities		19,274 82
Dividends paid policyholders in cash, or applied in liquidation of loans or notes		121,246 68
Dividends applied to pay renewal premiums		63,592 41
Dividends applied to purchase paid-up additions and annuities		39,227 27
Left with the company to accumulate at interest		1,791 33
Total paid policyholders		$1,685,205 13
Expense of investigation and settlement of policy claims, including legal expenses		1,140 20
Supplementary contracts not involving life contingencies		9,270 26
Dividends with interest, held on deposit surrendered during the year		240 50
Commissions to agents		196,673 32
Commuted renewal commissions		575 00
Compensation of managers and agents not paid by commissions on new business		231 23

Amount brought forward	$1,893,335 75
Agency supervision and traveling expenses of supervisors	21,123 53
Branch office expenses	38,179 89
Medical examiners' fees and inspection of risks	11,571 00
Salaries and all other compensation of officers and home employees	98,649 28
Rent, including company's occupancy of its own buildings	26,897 87
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange	21,725 72
Legal expense	6,768 05
Furniture, fixtures and safes	639 15
Repairs and expenses (other than taxes) on real estate	22,821 46
Taxes on real estate	11,542 89
State taxes on premiums	41,224 49
Insurance Department licenses and fees	3,904 64
All other licenses, fees and taxes	4,940 73
Other disbursements: Borrowed money repaid, $125,000.00; interest on borrowed money, $519.45; expense, mortgages, $1.78; traveling expense, officers and clerks, $737.79; miscellaneous expenses, $3,150.06; profit and loss, miscellaneous, $2,380.86	131,789 94
Loss on sale or maturity of ledger assets	66,645 21
Decrease in book value of ledger assets	7,500 00
Total disbursements	$2,409,259 49
Balance	$17,489,515 83

LEDGER ASSETS.

Book value of real estate	$958,653 68
Mortgage loans on real estate	1,570,645 10
Loans secured by collaterals	881,365 00
Loans on company's policies assigned as collateral	1,751,997 29
Premium notes on policies in force	106,121 43
Book value of bonds and stocks	11,961,353 07
Cash in office	361 29
Deposits in trust companies and banks not on interest	40,413 13
Deposits in trust companies and banks on interest	215,941 63
Bills receivable	102 00
Agents' balances	2,562 21
Total ledger assets	$17,489,515 83

Non-Ledger Assets.

	New business.	Renewals.	
Interest due and accrued on mortgages		$25,430 03	
Interest due and accrued on bonds		148,232 73	
Interest due and accrued on collateral loans		4,054 36	
Interest due and accrued on premium notes, loans or liens		42,495 83	
Rents due and accrued on company's property		3,528 91	
			223,741 86
Market value of bonds not subject to amortization and stocks over book value			136,072 45
Net uncollected and deferred premiums	$13,401 78	$244,665 91	258,067 69
Gross assets			$18,107,397 83

Deduct Assets Not Admitted.

Agents' debit balances	$2,562 21	
Bills receivable	102 00	
Premium notes or loans on policies and net premiums in excess of value of their policies	435 00	
Overdue and accrued interest on bonds in default	7,710 00	
Book value of ledger assets over market value: Book value of bonds over amortized value	18,619 16	
		29,428 37
Admitted assets		$18,077,969 46

LIABILITIES.

Net present value of outstanding policies: Actuaries, 4 per cent; and American, 3 per cent; computed by the company's insurance department	$15,690,030 00	
Same for reversionary additions	310,675 00	
Same for annuities	19.226 00	
Total	$16,019,931 00	
Deduct net value of risks reinsured	6,742 00	
Net reserve		$16,013,189 00
Present value of supplementary contracts not involving life contingencies		60,211 00
Death losses in process of adjustment	$41,443 47	
Death losses incurred for which no proofs have been received	41,834 84	
Matured endowments due and unpaid	3.207 07	
Death losses and other policy claims resisted	29.535 00	
Total policy claims		116,020 38
Dividends left with the company to accumulate at interest		3,041 04
Premiums paid in advance, including surrender value so applied		526 98
Unearned interest and rent paid in advance		7,491 95
Commissions due agents on premium notes, when paid		3,700 00
Commissions to agents due or accrued		1,500 00
Cost of collection on uncollected and deferred premiums in excess of loading		3,709 00
Salaries, rents, office expenses, bills and accounts due or accrued		5,000 00
Medical examiners' and legal fees due or accrued		4.700 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		41,000 00
Dividends or other profits due policyholders		14,303 15
Unassigned funds (surplus)		1,803,585 96
Total liabilities		$18,077,969 46

PREMIUM NOTE ACCOUNT.

On hand December 31, 1910	$111,127 24	
Received during the year on old policies	194,390 89	
Restored by revival of policies	2,621 14	
		$308,139 27
Deductions during the year as follows:		
Used in payment of losses and claims	$1,914 47	
Used in purchase of surrendered policies	735 28	
Voided by lapse	17,933 72	
Used in payment of dividends to policyholders	1,226 00	
Redeemed by maker in cash	180,208 37	
Total reduction of premium note account		202,017 84
Balance note assets at end of the year		$106,121 43

EXHIBIT OF POLICIES—ORDINARY.

	Number.	Amount.
Policies in force December 31, 1910	43,132	$61,345,358 00
Policies issued, revived, changed and increased during the year	3,081	5,343,566 00
Totals	46,213	$66,738,924 00
Deduct policies which have ceased to be in force during the year	2,984	4,634,679 00
Total policies in force at end of year 1911	43,229	$62,104,245 00
Reinsured	5	$90,000 00

BUSINESS IN CALIFORNIA—ORDINARY.

	Number.	Amount.
Policies in force December 31, 1910	3.069	$4,447,963 22
Policies issued during the year	88	133,265 25
Totals	3,157	$4,581,228 47
Deduct policies ceased to be in force	164	256,682 13
Policies in force December 31, 1911	2,993	$4,324,546 34
Losses and claims unpaid December 31, 1910	12	$27,800 00
Losses and claims incurred during the year	31	54,741 19
Totals	43	$82,541 19
Losses and claims settled during the year	41	80,541 19
Losses and claims unpaid December 31, 1911	2	$2,000 00
Premiums received		$154,493 72

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus.
Loading on actual premiums of the year (averaging 21.79 per cent of the gross premiums)	$490,075 73		
Insurance expenses incurred during the year	458,889 07		
Gain from loading		$31,186 66	
Interest earned during year	$782,977 57		
Investment expenses incurred during the year	56,423 25		
Net income from investments	$726,554 32		
Interest required to maintain reserve	571,196 00		
Gain from interest		155,358 32	
Expected mortality on net amount at risk	$623,782 00		
Actual mortality on net amount at risk	465,038 98		
Gain from mortality		158,743 02	
Expected disbursements to annuitants	$1,132 08		
Net actual annuity claims incurred	2,282 23		
Loss from annuities		------------	$1,150 15
Total gain during the year from surrendered and lapsed policies		51,288 22	
Decrease in surplus on dividend account		------------	226,197 41
Net to gain account		588 97	

Investment Exhibit.

		Gain in surplus.	Loss in surplus.
Total gains from stocks and bonds		41,624 26	
Total losses from stocks and bonds			96,721 08
Loss on account collateral loans on securities, No. 40		------------	7,500 00
Loss from assets not admitted			5,086 37
Gain unaccounted for		6,349 97	
Total gains and losses in surplus during the year		$445,139 42	$336,655 01
Surplus December 31, 1910	$1,695,101 55		
Surplus December 31, 1911	1,803,585 96		
Increase in surplus (enter in column to balance)			108,484 41
Totals		$445,139 42	$445,139 42

THE WEST COAST LIFE INSURANCE COMPANY.

No. 348 Pine street, San Francisco, California.

(Incorporated March 12, 1906. Commenced business in California April 2, 1906.)

HENRY J. CROCKER, President. JULIAN SONNTAG, Secretary.

CAPITAL.

Capital stock paid up in cash	$350,000 00	
Amount of ledger assets December 31st of previous year		$661,313 63
Increase of paid-up capital during year		44,103 19
Extended at		$705,416 82

INCOME.

First year's premiums on original policies, less reinsurance, $3,900.80	$139,522 86	
Dividends applied to purchase paid-up additions and annuities	2,468 80	
Total new premiums		$141,991 66
Renewal premiums less reinsurance, $5,454.57	$394,586 07	
Dividends applied to pay renewal premiums	8,235 11	
Surrender values applied to pay renewal premiums	215 60	
Total renewal premiums		403,036 78
Total premium income		$545,028 44
Interest on mortgage loans	$16,120 32	
Interest on collateral loans	5,771 96	
Interest on bonds and dividends on stocks	9,036 12	
Interest on premium notes, policy loans or liens	3,790 76	
Interest on other debts due the company: Sundry deferred premiums, etc.	269 96	
Rents	1,440 00	
Total interest and rents		36,429 12
Stockholders	$93,465 06	
Surety (net)	310 88	
Suspense (net)	476 25	
		94,252 19
Profit on sale or maturity of ledger assets		620 00
Increase in book value of ledger assets		1,440 66
Total income		$677,770 41
Total		$1,383,187 23

DISBURSEMENTS.

Death claims and additions	$70,914 65	
Matured endowments and additions on accident and disease claims	4,593 08	
Total death claims and endowments		$75,507 73
Premium notes and liens voided by lapse		58 90
Surrender values paid in cash, or applied in liquidation of loans or notes		8,999 62
Surrender values applied to pay new and renewal premiums		215 60
Dividends applied to pay renewal premiums		8,235 11
Special correspondence remuneration		10,523 48
Dividends applied to purchase paid-up additions and annuities		2,468 80
Total paid policyholders		$106,009 24
Expense of investigation and settlement of policy claims, including legal expenses		925 15
Commissions to agents		150,497 09

Amount brought forward	$257,521 48
Compensation of managers and agents not paid by commissions on new business	101,510 87
Agency supervision and traveling expenses of supervisors	4,209 43
Branch office expenses	64,798 02
Medical examiners' fees and inspection of risks	18,203 43
Salaries and all other compensation of officers and home employees	47,697 21
Rent, including company's occupancy of its own buildings	13,637 65
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange	14,726 95
Legal expense	748 25
Furniture, fixtures and safes	1,730 62
Repairs and expenses (other than taxes) on real estate	161 00
Taxes on real estate	171 72
State taxes on premiums	3,861 03
Insurance Department licenses and fees, net	845 78
All other licenses, fees and taxes	995 56
Other disbursements: Interest, $270.28; traveling expense, $2,947.60; legislative expense, $183.92; investment expense, $194.50; miscellaneous, $3,658.38	7,254 68
Agents' balances charged off	450 52
Decrease in book value of ledger assets	158 22
Total disbursements	$538,592 42
Balance	$844,594 81

LEDGER ASSETS.

Book value of real estate	$16,725 53
Mortgage loans on real estate	255,075 00
Loans secured by collaterals	83,300 00
Loans on company's policies assigned as collateral	75,761 35
Industrial policy liens	639 55
Premiums notes on policies in force	5,634 44
Book value of bonds and stocks	269,537 84
Cash in office	14,915 01
Deposits in trust companies and banks not on interest	67,299 38
Agents' balances	12,172 18
Cash in ordinary branch offices and in transit	43,534 53
Total ledger assets	$844,594 81

Non-Ledger Assets.

Interest due and accrued on mortgages		$1,053 47	
Interest due and accrued on bonds		1,718 68	
Interest due and accrued on collateral loans		95 04	
Interest due and accrued on premium notes, loans or liens		541 25	
Total			3,408 44
Market value of real estate over book value			3,274 47
	New business.	Renewals.	
Net uncollected and deferred premiums	$4,857 72	$34,675 38	39,533 10
Furniture and fixtures			13,568 85
Cash in industrial branch offices			383 15
Printing and stationery			3,256 45
Gross assets			$908,019 27

Deduct Assets Not Admitted.

Supplies, printed matter and stationery	$3,256 45	
Furniture, fixtures and safes	13,568 85	
Agents' debit balances	12,267 75	
Premium notes or loans on policies and net premiums in excess of value of their policies	5,830 88	
Total		34,923 93
Admitted assets		$873,095 34

LIABILITIES.

Net present value of outstanding policies: American. 3½ per cent; computed by the State Insurance Department	$487.362 89	
Same for reversionary additions	2.992 21	
Total	$490,355 10	
Deduct net value of risks reinsured	4.165 14	
	$486.189 96	
Reserve to provide for health and accident benefits contained in life policies	3.766 80	
Net reserve		$489.956 76
Death losses in process of adjustment	$639 50	
Death losses incurred for which no proofs have been received	950 05	
Death losses and other policy claims resisted	500 00	
Total policy claims		2,089 55
Premiums paid in advance, including surrender values so applied		1.948 03
Unearned interest and rent paid in advance		1.201 01
Commissions to agents due or accrued		6 97
Salaries, rents. office expenses, bills and accounts due or accrued		3,595 56
Medical examiners' and legal fees due or accrued		2.977 50
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		7.078 25
Dividends declared on or apportioned to annual dividend policies payable to policyholders during 1912		751 70
Paid-up capital		350,000 00
Unassigned funds (surplus)		13,490 01
Total liabilities		$873.095 34

PREMIUM NOTE ACCOUNT.

On hand December 31, 1910	$4.459 33	
Received during the year on new policies	2,326 70	
Received during the year on old policies	6,082 99	
		$12.869 02
Deductions during the year as follows:		
Redeemed by maker in cash		7.234 58
Balance note assets at end of the year		$5,634 44

EXHIBIT OF POLICIES.

Ordinary.			Number.	Amount.
Policies in force December 31, 1910			3.062	$6.735.190. 00
Policies issued, revived, changed and increased during the year			2,319	3,632.889 00
Totals			5,381	$10,368.079 00
Deduct policies which have ceased to be in force during the year:	Number.	Amount.		
By death	16	$39,500 00		
By expiry	289	626,054 00		
By surrender	52	147,496 00		
By lapse	772	945,471 00		
By decrease	-----	52.056 00		
Totals			1,129	1,810,577 00
Total policies in force at end of year 1911			4,252	$8,557,502 00
Reinsured			125	$717,000 00

EXHIBIT OF POLICIES.

Industrial.

	Number.	Amount.	Number.	Amount.
Policies in force December 31, 1910			28,813	$4,126,757 00
Policies issued, revived, changed and increased during the year			33,362	4,675,590 00
Totals			62,175	$8,802,347 00
Deduct policies which have ceased to be in force during the year:				
By death	312	$46,266 00		
By lapse	25,479	3,630,415 00		
By decrease	-----	7,040 00		
Totals			25,791	3,683,721 00
Total policies in force at end of year 1911			36,384	$5,118,626 00

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount
Policies in force December 31, 1910	2,086	$5,520,054 00
Policies issued during the year	1,064	1,953,755 00
Totals	3,150	$7,473,809 00
Deduct policies ceased to be in force	685	1,406,630 00
Policies in force December 31, 1911	2,465	$6,067,179 00
Losses and claims unpaid December 31, 1910		$1,950 05
Losses and claims incurred during the year		31,192 02
Totals		$33,142 07
Losses and claims settled during the year		32,192 02
Losses and claims unpaid December 31, 1911		$950 05
Premiums received		$235,341 75

BUSINESS IN CALIFORNIA.

Industrial.

	Number.	Amount
Policies in force December 31, 1910	17,206	$2,468,472 00
Policies issued during the year	19,490	2,736,425 00
Totals	36,696	$5,204,897 00
Deduct policies ceased to be in force	15,386	2,181,545 00
Policies in force December 31, 1911	21,310	$3,023,352 00
Losses and claims unpaid December 31, 1910		$187 00
Losses and claims incurred during the year		27,115 68
Totals		$27,302 68
Losses and claims settled during the year		26,929 18
Losses and claims unpaid December 31, 1911		$373 50
Premiums received		$126,554 60

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus.
Loading on actual premiums of the year (averaging 48 per cent of the gross premiums)	$273,831 31		
Insurance expenses incurred during the year	455,452 16		
Loss from loading		----------	$181,620 85

		Gain in surplus.	Loss in surplus.
Interest earned during the year	$38,132 02		
Investment expenses incurred during the year	2,409 61		
Net income from investments	$35,722 41		
Interest required to maintain reserve	14,308 88		
Gain from interest		$21,413 53	
Expected mortality on net amount at risk	$109,275 60		
Actual mortality on net amount at risk	62,691 99		
Gain from mortality		46,583 61	
Total gain during the year from surrendered and lapsed policies		19,426 85	
Decrease in surplus on dividend account		------------	$10,575 01
Net to profit account		336 61	
Investment Exhibit.			
Total gains from stocks and bonds		620 00	
Loss from assets not admitted		------------	8,735 06
Received from stockholders		93,465 06	
Total gains and losses in surplus during the year		$181,845 66	$200,930 92
Surplus December 31, 1910	$32,575 27		
Surplus December 31, 1911	13,490 01		
Decrease in surplus (enter in column to balance)		19,085 26	
Total		$200,930 92	$200,930 92

WESTERN STATES LIFE INSURANCE COMPANY.

First National Bank Building, San Francisco, California.

(Incorporated October 11, 1909. Commenced business in California (Licensed) June 25, 1910.)

WARREN R. PORTER, President. FREDERIC S. WITHINGTON, Secretary.

CAPITAL.

Capital stock paid up in cash	$1,000,000 00	
Amount of ledger assets December 31st of previous year		$1,357,107 95

INCOME.

First year's premiums on original policies, less reinsurance	$164,300 74	
Renewal premiums less reinsurance	35,798 00	
Total premium income		$200,098 74
Guaranteed reductions left with the company to accumulate at interest		2,001 33
Interest on mortgage loans	$20,882 90	
Interest on bonds and dividends on stocks	29,148 40	
Interest on premium notes, policy loans or liens	21 81	
Interest on deposits	10,797 94	
Total interest		60,851 05
Premiums paid for policies not yet in force (suspense)		1,690 53
Increase in book value of ledger assets (accrual of discount on bonds)		718 19
Total income		$265,359 84
Total		$1,622,467 79

DISBURSEMENTS.

Death claims and additions	$4,000 00
Guaranteed reductions left with the company to accumulate at interest	2,001 33
Total paid policyholders	$6,001 33
Commissions to agents	111,805 41
Commuted renewal commissions	24,501 81
Compensation of managers and agents not paid by commissions on new business	21,288 29
Agency supervision and traveling expenses of supervisors	5,976 65
Branch office expenses	1,111 77
Medical examiners' fees and inspection of risks	11,994 05
Salaries and all other compensation of officers and home employees	36,352 14
Rent, including company's occupancy of its own buildings	8,080 00
Advertising, printing, stationery, postage, telegraph, telephone, express and exchange	14,239 14
Legal expense	688 50
Furniture, fixtures and safes	2,305 56
State taxes on premiums	70 74
Insurance Department licenses and fees	1,030 20
State, county and city taxes	482 55
Other disbursements: Policy registration fees in California, $1,926.00; medical directors' fees and expenses, $1,912.90; surety bonds, $416.17; examinations of company, $1,630.55; traveling expenses, $849.18; property examination expense, $16.88; miscellaneous home office expenses, $707.33	7,459 01
Decrease in book value of ledger assets: Amortization of premiums on bonds	499 96
Total disbursements	$253,887 11
Balance	$1,368,580 68

LEDGER ASSETS.

Mortgage loans on real estate	$465,700 00
Premium notes on policies in force	1,123 35
Book value of bonds and stocks	623,788 82
Cash in office	1,221 30
Deposits in trust companies and banks not on interest	250,411 83
Deposits in trust companies and banks on interest	12,066 58
Agents' balances, net	14,268 80
Total ledger assets	$1,368,580 68

Non-Ledger Assets.

	New business.	Renewals.	
Interest due and accrued on mortgages		$1,067 73	
Interest due and accrued on bonds		7,046 11	
Interest due and accrued on premium notes, loans or liens		6 73	
Interest due and accrued on other assets		333 32	
			8,453 89
Net uncollected and deferred premiums	$11,149 81	$15,823 11	26,972 92
Gross assets			$1,404,007 49

Deduct Assets Not Admitted.

Agents' debit balances, gross	$15,244 87	
Premium notes or loans on policies and net premiums in excess of value of their policies	2,937 00	
		18,181 87
Admitted assets		$1,385,825 62

LIABILITIES.

Net present value of outstanding policies: Actuaries, 4 per cent; and American, 3½ per cent; American, 3 per cent; computed by the company's actuary	$81,464 00	
Deduct net value of risks reinsured	1,408 00	
	$80,056 00	
Deduct net value of risks reinsured	1,408 00	
Reserve to provide for health and accident benefits contained in life policies	1,504 00	
Net reserve		$81,560 00
Guaranteed reduction left with the company to accumulate at interest		2,014 42
Premiums paid in advance, including surrender values so applied		329 37
Unearned interest and rent paid in advance		2,494 72
Salaries, rents, office expenses, bills and accounts due or accrued		79 80
Medical examiners' and legal fees due or accrued		388 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		1,600 00
Premiums paid for policies not yet in force (suspense); see item in income account		1,690 53
Paid-up capital		1,000,000 00
Unassigned funds (surplus)		295,668 78
Total liabilities		$1,385,825 62

PREMIUM NOTE ACCOUNT.

Received during the year on old policies	$1,945 69	
Received during the year on new policies	$5 15	
		$1,950 84
Deductions during the year as follows: Redeemed by maker in cash		827 49
Balance note assets at end of the year		$1,123 35

EXHIBIT OF POLICIES.

Ordinary.

	Number.	Amount.	Number.	Amount.
Policies in force December 31, 1910			468	$1,551,850 00
Policies issued, revived, changed and increased during the year			1,634	4,356,575 00
Totals			2,102	$5,908,425 00
Deduct policies which have ceased to be in force during the year:				
By death	2	$4,000 00		
By lapse	216	732,200 00		
By decrease	----	31,450 00		
			218	767,650 00
Total policies in force at end of year 1911			1,884	$5,140,775 00
Reinsured			31	$266,099 00

BUSINESS IN CALIFORNIA.

Ordinary.

	Number.	Amount.
Policies in force December 31, 1910	428	$1,421,350 00
Policies issued during the year	1,180	2,918,825 00
Totals	1,608	$4,340,175 00
Deduct policies ceased to be in force	22	39,500 00
Policies in force December 31, 1911	1,586	$4,300,675 00
Losses and claims incurred during the year	2	4,000 00
Losses and claims settled during the year	2	4,000 00
Premiums received		$163,272 31

GAIN AND LOSS EXHIBIT.

Insurance Exhibit.

		Gain in surplus.	Loss in surplus.
Loading on actual premiums of the year (averaging 65.6 per cent of the new gross premiums), and 10.2 per cent of renewal premiums	$136,026 86		
Insurance expenses incurred during the year	261,687 41		
Loss from loading		------------	$125,660 55
Interest earned during the year	$55,225 29		
Investment expenses incurred during the year	16 88		
Net income from investments	$55,208 41		
Interest required to maintain reserve	2,118 09		
Gain from interest		$53,909 32	
Expected mortality on net amount at risk	$31,350 28		
Actual mortality on net amount at risk	3,994 67		
Gain from mortality		27,355 61	
Total gain during the year from surrendered and lapsed policies		1,696 00	
Decrease in surplus on guaranteed reductions		------------	2,014 42
Increase in special funds, and special reserves during the year		------------	728 07

Investment Exhibit.

		Gain in surplus.	Loss in surplus.
Loss from assets not admitted		------------	18,181 87
Loss unaccounted for		------------	94 97
Total gains and losses in surplus during the year		$82,141 93	$146,679 88
Surplus December 31, 1910	$360,206 73		
Surplus December 31, 1911	295,668 78		
Decrease in surplus (enter in column to balance)		64,537 95	
Totals		$146,679 88	$146,679 88

LIFE INSURANCE COMPANIES

(ASSESSMENT).

LIFE INSURANCE COMPANIES (ASSESSMENT).

GUARANTEE FUND LIFE ASSOCIATION.

Brandeis Building, Omaha, Nebraska.

(Incorporated December, 1901. Commenced business in California January 2, 1902.)

F. McGiverin, President. J. G. Buffington, Secretary.

Balance from previous year: Mortuary, $43,829.87; reserve, $375,547.76; expense, $5,230.03	$424,607 66

INCOME.

Membership fees actually received	$84,333 71
Subsequent years' assessments or premiums—mortuary, $99,652.92; expense, $5,594.16	9,157 50
Subsequent years' assessments on premiums—mortuary, $99,652.92; reserve, $114,037.16; expense, $32,657.99	246,348 07
Total received from applicants and members	$339,839 28
Interest from all sources—reserve	22,301 00
Total income	$362,140 28
Sum	$786,747 94

DISBURSEMENTS.

Death claims—mortuary	$51,100 00
Guarantee deposits returned to beneficiaries—reserve	1,048 00
Cancellations of guarantee deposits—reserve	1,203 00
Total payments to members	$53,351 00
Commission and fees paid to agents—expense	77,749 41
Salaries of officers and trustees (4)—expense	6,024 98
Salaries of office employes (14)—expense	11,748 27
Salaries and fees paid to medical examiners—expense	7,691 00
Superintendent of agents—expense	2,595 97
Collection and remittance of assessments, etc.—expense	1,927 37
Insurance Department fees and licenses—expense	809 47
Taxes on assessments or premiums—expense	2,491 55
Other taxes—expense	80 95
Rent—expense	1,338 00
Advertising, printing and stationery—expense	4,854 02
Postage, express, telegraph and telephone and office supplies—expense	6,357 74
Other legal expenses	1,164 65
Furniture and fixtures—expense	742 05
Other disbursements: Bank fees, $3,941.60; exchange and discount, $41.73; miscellaneous expense, $394.00; organization of new territory, $2,595.00; investigation of claims and risks, $295.71—expense	7,268 04
Total disbursements	$186,194 47
Balance	$600,553 47

LEDGER ASSETS.

Mortgage loans on real estate	$333,350 00
Book value of bonds	10,000 00
Deposited in trust companies and banks on interest	18,106 13
Deposited in banks not on interest	1,648 01
Cash in association's office	495 38
Agents' balances, debit, $1,239.42; credit, $232.00: net	1,007 42
Guarantee notes, not due, of members in good standing	235,946 53
Total ledger assets	$600,553 47

Non-Ledger Assets.

Interest accrued	$7,738 44
Mortuary assessments to become due on post-mortem policies	12,000 00
Gross assets	$620,291 91

Deduct Assets Not Admitted.

Agents' debit balances	$1,239 42
Total admitted assets	$619,052 49

LIABILITIES.

Death claims reported but not yet adjusted (6)	$12,000 00
Total liabilities	$12,000 00

EXHIBIT OF POLICIES OR CERTIFICATES.

Total business of the year.	Number.	Amount.
Policies or certificates in force December 31, 1910, as per last statement	9,146	$18,292,000 00
Policies or certificates written during the year	4,120	8,240,000 00
Policies or certificates restored during the year	88	176,000 00
Totals	13,354	$26,708,000 00
Deduct terminated or decreased during the year	1,330	2,660,000 00
Total policies or certificates in force December 31, 1911	12,024	$24,048,000 00

BUSINESS IN CALIFORNIA DURING THE YEAR.

	Number.	Amount.
Policies or certificates written during the year	154	$308,000 00
Deduct terminated or decreased during the year	4	8,000 00
Total policies or certificates in force December 31, 1911	150	$300,000 00

Received during the year from members in California: Expense, $2,562.50.

EXHIBIT OF DEATH CLAIMS.

	Number.	Amount.
Claims (face value) incurred during the year	33	$66,000 00
Totals	33	$66,000 00
Claims paid during the year	27	54,000 00
Balance	6	$12,000 00
Saved by compromising or scaling claims down during the year	2	2,900 00
Claims unpaid December 31, 1911	6	$12,000 00

MERCHANTS' LIFE ASSOCIATION.

Corner of Main and Jefferson streets, Burlington, Iowa.

(Incorporated April 4, 1894. Commenced business in California June 19, 1894.)

JOHN J. SEERLEY, President. F. J. KUHLEMEIER, Secretary.

Balance from previous year: Mortuary, $104,037.44; reserve, $491,800.99; guarantee, $4,846.51; expense, $6,147.10	$606,832 04

INCOME.

Membership fees actually received	$75,290 68
First year's assessments or premiums—mortuary, $33,996.83; reserve, $134,332.98; expense, $12,159.94	180,489 75
Subsequent years' assessments or premiums—mortuary, $265,842.05; expense, $89,180.70	355,022 75
Other payments by applicants and members:	
Change beneficiary—expense	170 00
Reinstatement fee—expense	496 00
Advanced by director—expense	100 00
Total received from applicants and members	$611,569 18
Interest on mortgage loans—reserve	17,982 62
Interest on bonds and dividends on stocks—reserve	760 00
Interest on bank deposits—reserve	1,853 67
Interest from all other sources—reserve	5,247 12
Total income	$637,412 59
Sum	$1,244,244 63

DISBURSEMENTS.

Death claims	$253,407 54
Guarantee fund returned to beneficiary	42 50
Annual payments and assessments returned to rejected applicants and to members of canceled certificates—reserve, $47,841.51; expense, $748.22	48,589 73
Total payments to members	$302,039 77
Paid bankers for recommendations	7,149 60
Renewal and agents' premiums	93,744 37
Salaries of officers and trustees (7)	16,200 00
Salaries of office employees (16)	9,294 25
Salaries and fees paid to medical examiners	1,860 00
Traveling and other expenses of managers and agents	3,503 45
Collection and remittance of assessments, etc.	3,986 65
Insurance Department fees and licenses	2,923 28
Taxes on assessments or premiums—reserve	4,440 84
Municipal tax	479 88
Rent	1,176 00
Advertising, printing and stationery	9,126 91
Postage, express, telegraph and telephone	11,561 88
Other legal expenses	626 75
Furniture and fixtures	1,591 06
Miscellaneous disbursements	1,145 20
Medical examinations	10,843 30
Interest paid on advances	552 00
Inspection of risks	1,563 14
Agents' balances charged off	2,831 73
Total disbursements	$486,640 06
Balance	$757,604 06

LEDGER ASSETS.

Mortgage loans on real estate	$458,181 32	
Book value of bonds and stocks	19,000 00	
Deposited in trust companies and banks on interest	94,317 52	
Deposited in banks not on interest	304 01	
Agents' balances	1,840 36	
Reserve fund notes, members in good standing	184,337 61	
		$757,980 82
Deduct deposits of members for future call		376 25
Total ledger assets		$757,604 57

Non-Ledger Assets.

Total interest due and accrued	$16,996 36	
Mortuary calls to become due on benefit certificates, but only to the extent necessary to meet outstanding claims on calls issued December 31, 1911 (approximate mortuary income, $81,336)	16,000 00	
		32,996 36
Gross assets		$790,600 93

Deduct Assets Not Admitted.

Agents' debit balances	$1,840 36	
Reserve fund notes	184,337 61	
Missouri State Department deposit	1,000 00	
		187,177 97
Total admitted assets		$603,422 96

LIABILITIES.

Death claims reported but not yet adjusted (8)		$16,000 00
Salaries, rents, expenses, etc., due or accrued	$11,000 00	
Taxes due or accrued (estimated)	3,000 00	
Advanced by directors	7,000 00	
Value of outstanding benefit certificates as provided by Chapter 83, Acts 32d Iowa General Assembly	265,719 00	
		286,719 00
Total liabilities		$302,719 00

EXHIBIT OF POLICIES OR CERTIFICATES.

Total business of the year.	Number.	Amount.
Policies or certificates in force December 31, 1910, as per last statement	21,879	$43,643,000 00
Policies or certificates written during the year	4,738	9,476,000 00
Totals	26,617	$53,119,000 00
Deduct terminated or decreased during the year	3,084	6,164,000 00
Total policies or certificates in force December 31, 1911	23,533	$46,955,000 00

Business in California during year.	Number.	Amount.
Policies or certificates written during the year	18	$36,000 00
Deduct terminated or decreased during the year	2	4,000 00
Total policies or certificates in force December 31, 1911	16	$32,000 00

Received during the year from members in California: Expense, $44.90.

EXHIBIT OF DEATH CLAIMS.

	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	4	$8,000 00
Claims (face value) incurred during the year	135	269,000 00
Totals	139	$277,000 00
Claims paid during the year	131	253,407 54
Claims unpaid December 31, 1911	8	$16,000 00
Saved by compromising or scaling claims down during the year		$7,259 14

SUNSET ASSURANCE ASSOCIATION.

Rooms 3-4-5 McKay Building, Santa Barbara, California.

(Incorporated June 30, 1911. Commenced business September 7, 1911.)

T. R. DAWE, President. FRED H. SCHAUER, Secretary.

INCOME.

Membership fees actually received, expense	$2,240 00
First year's assessments or premiums, reserve, $9,059.00; accident and health, $906.20; expense, $815.61	1,812 40
Interest on bonds and dividends on stocks, reserve	25 00
Home Protective Association as per contract, reserve	5,000 00
Total income	$9,077 40

DISBURSEMENTS.

Sick and accident claims, accident and health	$294 31
Home Protective Association as per contract, expense	3,055 61
Paid for Home Protective Association on account of cost of examination, reserve	27 50
Total disbursements	$3,377 42
Balance	$5,699 98

LEDGER ASSETS.

Book value of bonds and stocks		$5,008 00
Deposited in banks (not on interest)		691 98
Total ledger assets		$5,699 98
Non-Ledger Assets.		
Interest and rents due and accrued		63 71
Due from Home Protective Association on account of cost of examination		27 50
Gross assets		$5,791 19
Deduct Assets Not Admitted.		
Book value of bonds and stocks over market value	$8 00	
Due from Home Protective Association on account cost of examinations	27 50	
		35 50
Total admitted assets		$5,755 69

LIABILITIES.

Sick and accident claims reported but not adjusted (2)		$26 16
Advance premiums or assessments	$93 15	
Surplus to certificate holders	5,636 38	
		5,729 53
Total liabilities		$5,755 69

EXHIBIT OF POLICIES OR CERTIFICATES.

Total business of the year.	Number.	Amount.
Policies or certificates written during the year	448	$39,400 00
Deduct terminated or decreased during the year	7	700 00
Total policies or certificates in force December 31, 1911	441	$38,700 00

Received during the year from members in California: Reserve, $90.59; sick and accident, $906.20; expense, $815.61. Total, $1,812.40.

EXHIBIT OF SICK AND ACCIDENT CLAIMS.

Total claims.	Number.	Amount.
Claims incurred during the year	14	$320 47
Claims paid during the year	12	294 31
Claims unpaid December 31, 1911	2	$26 16

MISCELLANEOUS INSURANCE COMPANIES.

MISCELLANEOUS INSURANCE COMPANIES.

THE ÆTNA ACCIDENT AND LIABILITY COMPANY.

605 Main street, Hartford, Connecticut.

(Incorporated May, 1883. Commenced business in California June 3, 1908.)

M. G. Bulkeley, President. J. Scofield Rowe, Secretary.

Agent for service in California: J. R. Molony, San Francisco.

CAPITAL.

Capital stock paid up in cash	$1,000,000 00	
Amount of ledger assets December 31st of previous year		$990,931 70
Increase of paid-up capital during the year		500,000 00
Extended at		$1,490,931 70

INCOME.

Fidelity—Gross premiums written and renewed during the year	$327 50
Surety—Gross premiums written and renewed during the year	1,498 10
Plate glass—Gross premiums written and renewed during the year, $114,733.72; deduct return premiums on policies canceled, $5,119.78; premiums on policies not taken, $23,511.69: Total deductions, $28,631.47; net premiums	86,102 25
Burglary and theft—Gross premiums written and renewed during the year, $164,354.24; reinsurance, $12,692.49; deduct return premiums on policies canceled, $10,834.56; premiums on policies not taken, $25,315.03: Total deductions, $48,842.02; net premiums	115,512 16
Sprinkler—Gross premiums written and renewed during the year, $15,030.28; reinsurance, $1,415.78; deduct return premiums on policies canceled, $870.56; premiums on policies not taken, $1,942: Total deductions, $4,228.34; net premiums	10,801 94
Fly wheel—Gross premiums written and renewed during the year, $1,898.28; deduct return premiums on policies canceled, $414.89; premiums on policies not taken, $24: Total deductions, $438.89; net premiums	1,459.39
Automobile property damage—Gross premiums written and renewed during the year, $482,055.34; deduct return premiums on policies canceled, $41,348.96; premiums on policies not taken, $102,597.90: Total deductions, $143,946.86; net premiums	338,108 48
Total	$553,809 82
Interest on mortgage loans, $22,502.71; collateral loans, $1,771.61; bonds and dividends on stocks, $3,861.50; from other sources, $1,465.34	29,601 16
Surplus account (increase paid in)	750,000 00
Total income	$1,333,410 98
Sum	$2,824,342 68

DISBURSEMENTS.

Plate glass—Gross amount paid for losses, $30,438.69; deduct salvage, $624.55	$29,814 14
Burglary and theft—Gross amount paid for losses, $40,752.62; deduct reinsurance, $2,278.71; salvage, $128.44: Total deductions, $2,407.15	38,345 47
Sprinkler—Gross amount paid for losses, $68.67; deduct reinsurance, $34.33	34 34
Fly wheel—Gross amount paid for losses	10,000 00

Amount brought forward	$78,193 95
Automobile property damage—Gross amount paid for losses, $146,442.45; deduct salvage, $902.73	145,539 72
Net amount paid policyholders for losses	$223,733 67
Investigation and adjustment of claims	8,632 13
Commissions or brokerage to agents (less amount received on return premiums and reinsurance)	1,330,019 77
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	22,892 39
Salaries, traveling and all other expenses of agents not paid by commissions	7,893 92
Inspections (other than medical and claim)	2,536 44
Rents	682 20
State taxes on premiums	6,083 36
Insurance Department licenses and fees	5,661 70
Allother licenses, fees and taxes	7,213 80
Advertising	2,259 61
Printing and stationery	8,765 10
Postage, telegraph, telephone and express	3,000 79
Furniture and fixtures	1,063 89
Stockholders for interest or dividends	25,000 00
Sundry expenses	733 00
Total disbursements	$459,275 77
Balance	$2,365,066 91

LEDGER ASSETS.

	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Mortgage loans on real estate, first liens			$643,600 36
Loans secured by pledge of bonds, stocks or other collaterals			33,000 00
Book value of bonds			976,318 75
Cash in office			627 01
Deposits in trust companies and banks not on interest			55,419 84
Deposits in trust companies and banks on interest			534,098 15
Gross premiums in course of collection on policies or renewals:			
Fidelity	$327 50		
Surety	993 10		
Plate glass	19,968 16	$1,426 56	
Burglary and theft	26,932 67	1,569 66	
Sprinkler	2,207 77	570 00	
Fly wheel	431 00		
Automobile property damage	54,332 38	11,249 04	
Totals	$103,192 58	$14,815 26	118,007 84
Bills receivable and suspense account		3,794 96	
Advance traveling expenses		200 00	
			3,994 96
Ledger assets as per balance			$2,365,066 91

Non-Ledger Assets.

Interest due and accrued on:		
Mortgages	$15,159 79	
Bonds	11,102 08	
Collateral loans	275 00	
Other assets	1,448 21	
		27,985 08
Gross assets		$2,393,051 99

Deduct Assets Not Admitted.

Bills receivable and suspense accounts	$3,794 96	
Premiums in course of collection written prior to October 1, 1911	14,815 26	
Book value of ledger assets over market value	9,548 75	
Advance traveling expenses	200 00	
		28,358 97
Total admitted assets		$2,364,693 02

LIABILITIES.

Losses and claims:		
Plate glass—Adjusted, $227.70; reported or in process of adjustment, $942.26; net unpaid claims except liability claims, $1,169.96; estimated expense of investigation and adjustment of unpaid claims, $58.50		$1,228 46
Burglary and theft—Adjusted, $495.75; reported or in process of adjustment, $4,523.00; resisted, $4,170.00; net unpaid claims except liability claims, $9,188.75; estimated expense of investigation and adjustment of unpaid claims, $459.44		9,648 19
Automobile property damage—Reported or in process of adjustment, $16,651.88; resisted, $11,386.50; net unpaid claims except liability claims, $28,038.38; estimated expense of investigation and adjustment of unpaid claims, $1,401.92		29,440 30
Net unpaid claims		$40,316 95
Unearned premiums at 50 per cent on risks running one year or less	$247,637 23	
Unearned premiums, pro rata on risks running more than one year	30,378 93	
Total unearned premiums		278,016 16
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Fidelity, $98.25; surety, $297.93; plate glass, $6,622.72; burglary and theft, $7,179.80; sprinkler, $801.94; fly wheel, $107.75; automobile property damage, $13,583.09		28,691 48
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		466 75
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		7,149 71
Return premiums		1,265 60
Reinsurance		2,518 60
Advance premiums (100 per cent)		747 88
Total		$359,173 13
Less liabilities secured by special deposits: Unearned premiums		1,385 12
Total amount of all liabilities except capital		$357,788 01
Capital actually paid up in cash	$1,000,000 00	
Surplus over all liabilities	1,006,905 01	
Surplus as regards policyholders		2,006,905 01
Total liabilities		$2,364,693 02

EXHIBIT OF PREMIUMS.

	Plate glass.	Fly wheel.	Surety.
In force December 31, 1910	$57,494 11	$3,418 79	
Written or renewed during the year	114,733 72	1,898 28	$1,498 10
Totals	$172,227 83	$5,317 07	$1,498 10
Deduct expirations and cancellations	83,999 35	1,693 22	430 96
Net in force December 31, 1911	$88,228 48	$3,623 85	$1,067 14

	Fidelity.	Burglary and theft.	Automobile property damage.
In force December 31, 1910		$104,832 15	$261,277 46
Written or renewed during the year	$327 50	164,354 24	482,055 34
Totals	$327 50	$269,186 39	$743,332 80
Deduct expirations and cancellations		120,715 41	434,079 20
Balance	$327 50	$148,470 98	$309,253 60
Deduct reinsured policies		14,317 02	
Net in force December 31, 1911	$327 50	$134,152 96	$309,253 60

	Sprinkler.
Written or renewed during the year	$15,030 28
Deduct expirations and cancellations	3,227 01
Balance	$11,803 27
Deduct reinsured policies	1,891 41
Net in force December 31, 1911	$9,911 86

Total dividends declared from organization: Cash, $85,000.

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Plate glass	$4,561 46	$1,150 37
Burglary and theft	4,077 81	802 07
Automobile property damage	12,124 15	4,648 52
Totals	$20,763 42	$6,600 96

AMERICAN BONDING COMPANY.

Equitable Building, Calvert and Fayette streets, Baltimore, Maryland.

(Incorporated April 6, 1894. Commenced business in California September 2, 1898.)

GEORGE CATOR, President. WM. E. P. DUVALL, Secretary.

Agent for service in California: CLARENCE K. BENNETT, San Francisco.

CAPITAL.

Capital stock paid up in cash	$750,000 00	
Amount of ledger assets December 31st of previous year		$2,718,977 07

INCOME.

Fidelity—Gross premiums written and renewed during the year, $377,481.28; deduct reinsurance, $16,947.01; return premiums on policies canceled, $22,447.57; premiums on policies not taken, $15,123.39: Total deductions, $54,517.97	$322,963 31
Surety—Gross premiums written and renewed during the year, $1,163,080.56; deduct reinsurance, $77,873.66; return premiums on policies canceled, $74,545.40; premiums on policies not taken, $94,954.18: Total deductions, $247,373.24	915,707 32
Burglary and theft—Gross premiums written and renewed during the year, $285,145.61; deduct reinsurance, $26,334.16; return premiums on policies canceled, $24,514.69; premiums on policies not taken, $35,935.13: Total deductions, $86,783.98	198,361 63
Total net premiums	$1,437,032 26
Bonds and dividends on stocks, $85,798.34; from other sources, $8,090.12	93,888 46
Income from investments of collateral deposits during year	9,278 71
Interest and expenses paid on collateral deposits during year	7,399 45
Advance premiums, December 31, 1911	5,437 84
Advance premiums, December 31, 1910	5,329 05
Profit on sale or maturity of ledger assets	693 75
Increase in book value of ledger assets	13,881 87
Total income	$1,547,484 39
Sum	$4,266,461 46

DISBURSEMENTS.

Fidelity—Gross amount paid for losses, $78,083.44; deduct reinsurance, $1,503.90; salvage, $17,469.98: Total deductions, $18,973.88	$59,109 56
Surety—Gross amount paid for losses, $289,718.52; deduct reinsurance, $1,665.96; salvage, $70,559.39: Total deductions, $68,893.43	220,825 09
Burglary and theft—Gross amount paid for losses, $84,540.02; deduct reinsurance, $8,700.18; salvage, $498.75: Total deductions, $9,198.93	75,341 09
Total net amount paid policyholders for losses	$355,275 74

Amount brought forward	$355,275 74
Investigation and adjustment of claims	57,946 07
Commissions or brokerage to agents (less amount received on return premiums and reinsurance)	*304,821 25
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	*137,851 68
Salaries, traveling and all other expenses of agents not paid by commissions	*207,921 43
Inspections (other than medical and claim)	*3,816 07
Rents	*15,570 00
State taxes on premiums	*24,566 84
Insurance Department licenses and fees	*14,730 73
All other licenses, fees and taxes	*20,766 63
Legal expenses	*10,598 75
Advertising	*10,733 32
Printing and stationery	*15,935 66
Postage, telegraph, telephone and express	*12,462 29
Furniture and fixtures	*15,066 55
Stockholders for interest or dividends	120,000 00
General miscellaneous expenses	*31,400 07
Depreciation in market value of collateral deposit investments during year	195 00
Agents' balances charged off	5,492 48
Loss on sale or maturity of ledger assets	312 50
Decrease in book value of ledger assets	9,679 37
Total disbursements	$1,375,142 43
Balance	$2,891,319 03

LEDGER ASSETS.

	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Book value of bonds and stocks			$2,068,022 25
Cash in office			130 59
Deposits in trust companies and banks not on interest			8,193 22
Deposits in trust companies and banks on interest			439,551 88
Gross premiums in course of collection on policies or renewals:			
Fidelity	$24,084 48	$8,518 82	
Surety	150,818 41	119,555 42	
Burglary and theft	50,067 05	4,132 43	
Totals	$224,969 94	$132,206 67	357,176 61
Due by suspended banks and trust companies ($59,272.41)			18,244 48
Ledger assets as per balance			$2,891,319 03

Non-Ledger Assets.

Interest due and accrued on bonds	14,364 45
Gross assets	$2,905,683 48

Deduct Assets Not Admitted.

Premiums in course of collection written prior to October 1, 1911	$132,206 67	
Special deposits to secure liabilities in Virginia, Alabama and Philadelphia, Pa.	171,480 00	
Total		303,686 67
Total admitted assets		$2,601,996 81

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*Management expenses, $826,241.27.

LIABILITIES.

Losses and claims:		
Fidelity—Reported or in process of adjustment, $46,890.01; resisted, $44,223.91; deduct reinsurance, $1,562.67; net unpaid claims, except liability claims, $89,551.25; estimated expense of investigation and adjustment of unpaid claims, $3,100.00		$92,651 25
Surety—Reported or in process of adjustment, $150,034.15; resisted, $109,080.85; deduct reinsurance, $6,549.40; net unpaid claims, except liability claims, $252,565.60; estimated expense of investigation and adjustment of unpaid claims, $20,103.00		272,668 60
Burglary and theft—Reported or in process of adjustment, $26,382.12; resisted, $18,787.78; deduct reinsurance, $11,903.25; net unpaid claims, except liability claims, $33,266.65; estimated expense of investigation and adjustment of unpaid claims, $1,783.00		35,049 65
Net unpaid claims, except liability claims		$375,383 50
Unpaid claims and expenses of settlement		400,369 50
Unearned premiums at 75 per cent on risks written in New York State running one year or less	$36,919 90	
Unearned premiums at 50 per cent on risks running one year or less	621,628 42	
Unearned premiums, pro rata on risks running more than one year	108,105 38	
Total unearned premiums		766,653 70
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Fidelity, $4,816.90; surety, $29,164.72; burglary and theft, $9,924.80		43,906 42
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		2,500 00
Estimated amount hereafter payable for federal, state and other taxes, based upon the business of the year of this statement		22,500 00
Return premiums		5,491 64
Reinsurance		27,038 33
Advance premiums (100 per cent)		5,437 84
Total		$1,273,897 43
Less liabilities secured by special deposits: Unearned premiums, $19,093.54; unpaid losses, $12,256.60		31,350 14
Total amount of all liabilities except capital		$1,242,547 29
Capital actually paid up in cash	$750,000 00	
Surplus over all liabilities	609,449 52	
Surplus as regards policyholders		1,359,449 52
Total liabilities		$2,601,996 81

EXHIBIT OF PREMIUMS.

	Surety.	Fidelity.	Burglary and theft.
In force December 31, 1910	$936,181 33	$289,276 33	$266,730 97
Written or renewed during the year	1,163,080 56	377,481 28	285,145 61
Totals	$2,099,261 89	$666,757 61	$551,876 58
Deduct expirations and cancellations	1,073,939 15	337,345 06	263,550 35
Balance	$1,025,322 74	$329,412 55	$288,326 23
Deduct reinsured policies	96,448 81	18,387 42	31,763 30
Net in force December 31, 1911	$928,873 93	$311,025 13	$256,562 93
Amount at risk December 31, 1911	$253,219,144 98	$91,751,564 86	
Total dividends declared from organization			$775,000 00
Total losses incurred during the year (less reinsurance)			376,772 60

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

Gross premiums less return premiums on risks written or renewed during the year: Fidelity and surety, $87,273.39; burglary and theft, $6,750.59	$94,023 98
Gross losses paid: Fidelity and surety, $61,991.04; burglary and theft, $4,695.47	66,686 51

AMERICAN CASUALTY COMPANY.

Tacoma, Washington.

(Incorporated May 6, 1907. Commenced business in California November 9, 1907.)

J. E. CHILBERG, President. FRED S. FOGG, Secretary.

Agent for service in California: W. C. SHARPSTEIN, San Francisco.

CAPITAL.

Capital stock paid up in cash	$204,175 00	
Amount of ledger assets December 31st of previous year		$350,235 84

INCOME.

Accident—Gross premiums written and renewed during the year, $48,821.95; deduct return premiums on policies canceled, $235.90		$48,586 05
Workmen's collective—Gross premiums written and renewed during the year		21,804 27
Total net premiums		$70,390 32
Policy fees required or represented by applications		21,250 00
Interest on mortgage loans, $5,620.31; collateral loans, $75.53	$5,695 84	
Bonds and dividends on stocks, $232; from other sources, $5,375.37	5,607 37	
Rents	707 14	
Total interest and rents		12,010 35
Profit and loss	$121 70	
Drafts and accounts payable	226 82	
San Francisco branch	1,632 87	
		1,981 39
Profit on sale or maturity of ledger assets		33 39
Increase in book value of ledger assets		2,375 00
Total income		$108,040 45
Sum		$458,276 29

DISBURSEMENTS.

Accident—Gross amount paid for losses	$18,976 35
Workmen's collective—Gross amount paid for losses	15,490 76
Total net amount paid policyholders for losses	$34,467 11
Policy fees retained by agents	29,250 00
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	9,588 08
Salaries, fees and all other compensation of officers, directors, trustees and home office employees	10,260 74
Salaries, traveling and all other expenses of agents not paid by commissions	7,185 44
Rents	2,411 65
Repairs and expenses (other than taxes) on real estate	279 69
Taxes on real estate	446 94

State taxes on premiums		$1,622 00
Insurance Department licenses and fees		901 70
All other licenses, fees and taxes		36 44
Legal expenses		813 35
Advertising		923 87
Printing and stationery		2,614 12
Postage, telegraph, telephone and express		4,417 76
Stockholders for interest or dividends		5,104 37
Other disbursements: W. A. and H. Insurance Co., $67,623.39; private sanatorium, $2,706.96; agents' bonus, $270.00; coupons, $29.75; interest, bills receivable, $44.80; promotion, $1,180.16; investment expense, $1,615.63; bills payable, $570.00; sundry expense account, $1,065.50		75,106 19
Agents' balances charged off		4 00
Decrease in book value of ledger assets		750 00
Total disbursements		$178,183 45
Balance		$280,092 84

LEDGER ASSETS.

Book value of real estate		$56,628 74
Mortgage loans on real estate		119,567 24
Loans secured by pledge of bonds, stocks or other collaterals		1,300 00
Book value of bonds and stocks		6,500 00
Cash in office		1,817 35
Deposits in trust companies and banks not on interest		18,851 87
Deposits in trust companies and banks on interest		53,110 00
Bills receivable	$6,337 48	
Other ledger assets: Stationery, $1,033.50; commissions advanced, $1,178.38; furniture and fixtures, $4,703.36; sanatorium equipment, $6,907.75; accounts received, $524.30; San Francisco office, $1,632.87	15,980 16	
Ledger assets as per balance		22,317 64

Non-Ledger Assets.

Interest due and accrued on mortgages	$3,335 97	
Interest due and accrued on bonds	118 55	
Interest due and accrued on collateral loans	4 63	
Interest due and accrued on other assets	720 56	
		4,179 71
Due, contract collections, December, $1,900.00; inventory drugs and supplies, $1,272.63 and $695.30		3,867 93
Gross assets		$288,140 48

Deduct Assets Not Admitted.

San Francisco office	$1,632 87	
Bills receivable, $6,337.48; furniture and fixtures, $4,703.36; sanatorium equipment, $6,907.75	17,948 59	
Supplies, printed matter and stationery, $1,033.50; accounts received, $524.30	1,557 80	
		21,139 26
Total admitted assets		$267,001 22

LIABILITIES.

Losses and claims: Accident—Reported or in process of adjustment	$599 00
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911—Accident	359 73
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement	563 72
Due and to become due for borrowed money	1,790 00
Advance premiums (100 per cent)	5,559 20
Drafts payable	110 00
Accounts payable	116 82
Total amount of all liabilities except capital	$9,098 47

Amount brought forward		$9,098 47
Capital actually paid up in cash	$204,175 00	
Surplus over all liabilities	53,727 75	
Surplus as regards policyholders		257,902 75
Total liabilities		$267,001 22

EXHIBIT OF PREMIUMS.

	Accident.	Workmen's collective.
In force December 31, 1910	$5,300 96	
Written or renewed during the year	48,821 95	$21,804 27
Totals	$54,122 95	$21,804 27
Deduct expirations and cancellations	48,923 99	21,804 27
Net in force December 31, 1911	$5,198 92	

Total dividends declared from organization	$5,104 37
Total losses incurred during the year (less reinsurance)	33,205 45

BUSINESS IN CALIFORNIA DURING 1911.

Gross premiums less return premiums on risks written or renewed during the year: Accident	$8,271 00
Gross losses paid	2,136 50

AMERICAN CREDIT-INDEMNITY COMPANY.

No. 32 Broadway, New York City, N. Y.

(Incorporated April 28, 1893. Commenced business in California May 1, 1893.)

E. M. Treat, President. Jos. J. Gross, Secretary.

Agent for service in California: Geo. V. Lyddane, San Francisco.

CAPITAL.

Capital stock paid up in cash	$350,000 00	
Amount of ledger assets December 31st of previous year		$1,593,959 34

INCOME.

Credit—Gross premiums written and renewed during the year, $854,491.09; deduct return premiums on policies canceled, $9,973.41; premiums on policies not taken, $42,412.50; total deductions, $52,185.91		$802,305 18
Interest on bonds	$58,492 04	
From other sources:		
On deposits	562 12	
On bills receivable	371 67	
On premium notes	3,119 73	
Total interest and rents		62,545 56
Agents' balances previously charged off		160 00
Profit on sale or maturity of ledger assets (bonds)		93 75
Total income		$865,104 49
Sum		$2,459,063 83

DISBURSEMENTS.

Credit—Gross amount paid for losses	$558,421 71
Investigation and adjustment of claims	18,184 72
Commissions or brokerage to agents (less amount received on return premiums and reinsurance)	192,657 76
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	50,590 43
Salaries, traveling and all other expenses of agents not paid by commissions	22,241 10
Country exchange	633 33
Rents	10,146 09
State taxes on premiums	14,081 23
Insurance department licenses and fees	1,478 27
All other licenses, fees and taxes	4,247 03
Legal expenses	4,857 31
Advertising	7,472 53
Printing and stationery	3,839 90
Postage, telegraph, telephone and express	5,217 38
Stockholders for dividends	3,500 00
Other disbursements: Traveling expenses, $1,829.45; mercantile agencies, $2,438.50; miscellaneous expenses, $1,889.40; bills receivable, $1,974.07	8,131 42
Agents' balances charged off	7,009 90
Loss on sale or maturity of ledger assets, bonds	7,722 50
Total disbursements	$920,432 61
Balance	$1,538,631 22

LEDGER ASSETS.

Book value of bonds		$1,332,724 51
Cash in office		10,437 87
Deposits in trust companies and banks on interest		36,883 19
Bills receivable	$12,829 20	
Other ledger assets: Office furniture and fixtures, $44,920.04; agents' balances, $19,411.56; premium notes, $81,424.85	145,756 45	
		158,585 65
Ledger assets as per balance		$1,538,631 22

Non-Ledger Assets.

Interest due and accrued on bonds, $7,526.66; premium notes (not due), $640.62		8,167 28
Gross assets		$1,546,798 50

Deduct Assets Not Admitted.

Agents' balances	$19,411 56	
Bills receivable, $12,829.20; furniture and fixtures, $44,920.04	57,749 24	
Premium notes (past due)	21,783 39	
Book value of ledger assets over market value (bonds)	71,528 26	
Total		170,472 45
Total admitted assets		$1,376,326 05

LIABILITIES.

Credit (expirations prior to October, 1911)—Reported or in process of adjustment, $15,179.56; resisted, $38,572		$53,751 56
Special reserve for credit losses on policies in October, November and December, 1911, being 50 per cent of $239,200.83; gross premiums received on said policies, less $10,923.42, paid during said months on losses under said policies	$108,676 99	
Special reserve for accrued losses on credit policies in force December 31, 1911, being 50 per cent of $375,063.39 earned premiums on said policies	187,531 69	
Special reserve for credit losses		296,208.68

Amount brought forward		$296,208 68
Unearned premiums at 50 per cent on risks running one year or less, $753,349.76, pro rata	$378,319 24	
Unearned premiums, pro rata on risks running more than one year, $787.50	754 63	
Total unearned premiums		379,073 87
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911 (credit)		6,170 05
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued (estimated)		2,000 00
Estimated amount hereafter payable for state and other taxes based upon the business of the year of this statement		12,239 18
Advance premiums (100 per cent)		3,470 00
Agents' credit balances	$6,205 17	
Reserve for outstanding guarantees to policyholders	8,660 00	
Contingent reserve on salvage agreements	4,314 77	
		19,179 94
Total amount of all liabilities except capital		$772,093 28
Capital actually paid up in cash	$350,000 00	
Surplus over all liabilities	254,232 77	
Surplus as regards policyholders		604,232 77
Total liabilities		$1,376,326 05

EXHIBIT OF PREMIUMS.

	Credit.
In force December 31, 1910	$742,717 69
Written or renewed during the year	854,491 09
Totals	$1,597,208 78
Deduct expirations and cancellations	843,071 52
Net in force December 31, 1911	$754,137 26
Total dividends declared from organization (cash)	$815,500 00
Total losses incurred during the year (less reinsurance)	558,421 71

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

Gross premiums less return premiums on risks written or renewed during the year: Credit	$33,805 00
Gross loss, losses paid	6,739 81

AMERICAN FIDELITY INSURANCE COMPANY.

Main and State streets, Montpelier, Vermont.

(Incorporated 1900. Commenced business in California, 1911.)

JAMES W. BROCK, President. HARLAN W. KEMP, Secretary.

Agent for service in California: WILLIAM B. HAYES, San Francisco.

CAPITAL.

Capital stock paid up in cash	$750,000 00	
Amount of ledger assets December 31st of previous year		$1,556,793 35
Increase of paid up capital during the year, $250,000.00; surplus paid in by stockholders, $125,000.00		375,000 00
Extended at		$1,931,793 35

INCOME.

Accident—Gross premiums written and renewed during the year, $109,865.31; deduct reinsurance, $2,985.99; return premiums on policies canceled, $10,366.87; premiums on policies not taken, $16,961.70: Total deductions, $30,314.56	$79,550 75
Health—Gross premiums written and renewed during the year, $34,396.07; deduct reinsurance, $640.28; return premiums on policies canceled, $744.40; premiums on policies not taken, $6,354.92: Total deductions, $7,739.60	26,656 47
Liability—Gross premiums written and renewed during the year, $1,947,993.33; deduct reinsurance, $276.23; return premiums on policies canceled, $79,948.16; premiums on policies not taken, $354,933.68: Total deductions, $435,158.07	1,512,835 26
Fidelity—Gross premiums written and renewed during the year, $58,702.48; deduct reinsurance, $858.39; return premiums on policies canceled, $1,851.09; premiums on policies not taken, $4,889.98: Total deductions, $7,599.46	51,103 02
Surety—Gross premiums written and renewed during the year, $111,036.70; deduct reinsurance, $4,943.83; return premiums on policies canceled, $2,057.32; premiums on policies not taken, $8,520.79: Total deductions, $15,521.94	95,514 76
Burglary and theft—Gross premiums written and renewed during the year, $48,687.68; deduct reinsurance, $191.89; return premiums on policies canceled, $1,511.06; premiums on policies not taken, $6,049.35: Total deductions, $7,752.30	40,935 38
Automobile property damage—Gross premiums written and renewed during the year, $116,171.85; deduct return premiums on policies canceled, $6,785.33; premiums on policies not taken, $16,637.43: Total deductions, $23,422.76	92,749 09
Workmen's collective—Gross premiums written and renewed during the year, $2,010.87; deduct premiums on polices not taken, $1,287.00: Total deductions, $1,287.00	723 87
Total net premiums	$1,900,068 60
Bonds and dividends on stocks, $45,791.34; from other sources, $1,965.56	47,756 90
Increase in book value of ledger assets	11,013 75
Total income	$1,958,839 25
Sum	$3,890,632 60

DISBURSEMENTS.

Accident—Gross amount paid for losses, $37,301.28; deduct reinsurance, $295.66	$37,005 62
Health—Gross amount paid for losses, $15,784.33; deduct reinsurance, $350.89	15,433 44
Liability—Gross amount paid for losses	411,669 88
Fidelity—Gross amount paid for losses, $4,451.38; deduct salvage, $1,150.00	3,301 38
Surety—Gross amount paid for losses, $44,945.35; deduct salvage, $5,826.42	39,118 93
Burglary and theft—Gross amount paid for losses, $14,610.20; deduct salvage, $112.10	14,498 10
Automobile property damage—Gross amount paid for losses, $17,412.90; deduct salvage, $5.00	17,407 90
Total net amount paid policyholders for losses	$538,623 46
Investigation and adjustment of claims	172,784 66
Commissions or brokerage to agents (less amount received on return premiums and reinsurance)	476,003 04
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	44,996 09
Salaries, traveling and all other expenses of agents not paid by commissions	15,185 73

Amount brought forward	$1,247,592 82
Inspections (other than medical and claim)	6,078 25
Rents	1,852 84
State taxes on premiums	20,476 24
Insurance Department licenses and fees	5,415 08
All other licenses, fees and taxes	754 15
Legal expenses	1,389 57
Advertising	3,775 41
Printing and stationery	12,487 72
Postage, telegraph, telephone and express	5,954 93
Furniture and fixtures	3,550 94
Stockholders for interest or dividends	50,000 00
Traveling	7,987 43
Home office expense, $313.91; fire insurance, $47.30	361 21
Agents' balances charged off	1,179 71
Loss on sale or maturity of ledger assets	425 00
Total disbursements	$1,369,281 46
Balance	$2,521,351 14

LEDGER ASSETS.

Book value of bonds and stocks		$1,836,445 08
Cash in office	$18,368 09	
Deposits in trust companies and banks not on interest	98,627 67	
Deposits in trust companies and banks on interest	129,931 56	
		246,927 32

Gross premiums in course of collection on policies or renewals:

	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Accident and health	$24,636 15	$2,573 07	
Liability	321,081 89	47,932 96	
Fidelity and surety	27,924 80	4,569 25	
Burglary and theft	7,404 01	1,856 61	
Totals	$381,046 85	$56,931 89	437,978 74
Ledger assets as per balance			$2,521,351 14

Non-Ledger Assets.

Interest due and accrued on:		
Bonds	$22,839 57	
Bank balances	1,900 92	
		24,740 49
Reinsurance premiums from other companies on losses paid Casualty Company of America (collected in January, 1912)		99 28
Gross assets		$2,546,190 91

Deduct Assets Not Admitted.

Premiums in course of collection, written prior to October 1, 1911	$56,931 89	
Advanced to agents	156 04	
Bonds	44,275 08	
Total		101,363 01
Total admitted assets		$2,444,827 90

LIABILITIES.

Losses and Claims:		
Accident—Adjusted, $3,785.85; reported in process of adjustment, $7,339.64; resisted, $16,925.00; net unpaid claims except liability claims, $28,050.49; estimated expense of investigation and adjustment of unpaid claims, $450.00		$28,500 49
Health—Adjusted, $65.63; reported or in process of adjustment, $2,284.07; net unpaid claims, except liability claims		2,349 70
Fidelity—Reported or in process of adjustment, $3,162.95; resisted, $1,772.59; net unpaid claims except liability claims, $4,935.54; estimated expense of investigation and adjustment of unpaid claims, $50.00		4,985 54
Surety—Reported or in process of adjustment, $47,314.01; resisted, $20,138.96; net unpaid claims except liability claims, $67,452.97; estimated expense of investigation and adjustment of unpaid claims, $150.00		67,602 97
Burglary and theft—Adjusted, $193.70; reported or in process of adjustment, $984.00; resisted, $1,400.00; net unpaid claims except liability claims, $2,577.70; estimated expense of investigation and adjustment of unpaid claims, $50.00		2,627 70
Automobile property damage—Adjusted, $115.82; reported or in process of adjustment, $11,108.27; resisted, $3,764.63; net unpaid claims except liability claims, $14,988.72; estimated expense of investigation and adjustment of unpaid claims, $25.00		15,013 72
Workmen's collective—Reported or in process of adjustment, $1,199.01; net unpaid claims, except liability claims		1,199 01
Net unpaid claims except liability claims		$122,279 13
Special reserve for unpaid liability losses		402,365 16
Total unpaid claims and expenses of settlement		$524,644 29
Unearned premiums at 50 per cent on risks running one year or less	$865,822 22	
Unearned premiums, pro rata on risks running more than one year	49,687 97	
Total unearned premiums		915,510 19
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident and health, $9,112.55; physicians' defense and workmen's collective liabilities, $101,363.86; fidelity and surety, $7,893.85; burglary and theft, $2,449.22		120,819 48
Salaries, rents, expenses, bills, accounts, fees, etc. due or accrued		1,500 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		35,264 62
Dividends declared and unpaid to stockholders		20,000 00
Accident claims recorded in 1912		1,532 83
Surety claims recorded in 1912		200 00
Fidelity claims recorded in 1912		700 00
Total amount of all liabilities except capital		$1,620,171 41
Capital actually paid up in cash	$750,000 00	
Surplus over all liabilities	74,656 49	
Surplus as regards policy holders		824,656 49
Total liabilities		$2,444,827 90

EXHIBIT OF PREMIUMS.

	Accident.	Health.	Liability.
In force December 31, 1910	$92,028 66	$23,873 84	$659,345 29
Written or renewed during the year	109,865 31	34,396 07	1,947,993 33
Totals	$201,893 97	$58,269 91	$2,607,338 62
Deduct expirations and cancellations	124,729 73	33,422 37	1,231,974 84
Balance	$77,164 24	$24,847 54	$1,375,363 78
Deduct reinsured policies	2,298 05	535 00	------------
Net in force December 31, 1911	$74,866 19	$24,312 54	$1,375,363 78

	Fidelity.	Surety.
In force December 31, 1910	$35,735 71	$67,978 80
Written or renewed during the year	58,702 48	111,036 70
Totals	$94,438 19	$179,015 50
Deduct expirations and cancellations	41,292 81	71,603 52
Balance	$53,145 38	$107,411 98
Deduct reinsured policies	652 64	3,976 02
Net in force December 31, 1911	$52,492 74	$103,435 96
Amount at risk December 31, 1911	$17,649,528 00	$15,035,531 00

	Burglary and theft.	Automobile property damage.	Workmen's collective.
In force December 31, 1910	$49,270 41	$16,230 10	$582 50
Written or renewed during the year	48,687 68	116,171 85	2,010 87
Totals	$97,958 09	$132,401 95	$2,593 37
Deduct expirations and cancellations	47,940 05	47,765 43	1,345 85
Balance	$50,018 04	$84,636 52	$1,247 52
Deduct reinsured policies	228 75		
Net in force December 31, 1911	$49,789 29	$84,636 52	$1,247 52

BUSINESS IN CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Accident	$98 93	$25 00
Health	63 00	
Liability	4,626 40	100 00
Fidelity	367 85	
Burglary and theft	12 50	
Automobile property damage	62 50	
Totals	$5,238 18	$125 00

AMERICAN SURETY COMPANY.

100 Broadway, New York City, New York.

(Incorporated April 14, 1884. Commenced business in California, 1886.)

F. W. LAFRENTZ, President. H. B. ZEVELY, Secretary.

Agent for service in California: BRANTLEY W. DOBBINS, San Francisco.

CAPITAL.

Capital stock paid up in cash	$2,500,000 00	
Amount of ledger assets December 31st of previous year		$8,602,373 00

INCOME.

Fidelity—Gross premiums written and renewed during the year, $1,204,434.39; deduct reinsurance, $7,086.17; return premiums on policies canceled, $149,147.68; premiums on policies not taken, $35,996.92: Total deductions, $192,230.77	$1,012,203.62
Surety—Gross premiums written and renewed during the year, $1,921,684.77; deduct reinsurance, $35,141.65; return premiums on policies canceled, $353,792.52; premiums on policies not taken, $45,296.33: Total deductions, $434,230.50	1,487,454 27
Total net premiums	$2,499,657 89

Interest on mortgage loans	$8,858 51	
Bonds and divisions on stocks, $153,228.82; from other sources, $20,669.91	173,898 73	
Rents	317,434 20	
Total interest and rents		$500,191 44
From all other sources		9,063 90
Profit on sale or maturity of ledger assets		13,741 09
Total income		$3,022,654 32
Sum		$11,625,027 32

DISBURSEMENTS.

Fidelity—Gross amount paid for losses, $293,377.98; deduct salvage, $84,558.68	$208,819 30	
Surety—Gross amount paid for losses, $617,674.46; deduct reinsurance, $21,282.04; salvage, $170,532.65: Total deductions, $191,814.69	425,859 77	
Total net amount paid policyholders for losses		$634,679 07
Investigation and adjustment of claims		50,833 20+
Commissions or brokerage to agents (less amount received on return premiums and reinsurance)		248,644 98+
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees		322,106 13+
Salaries, traveling and all other expenses of agents not paid by commissions		704,996 99+
Inspections (other than medical and claim)		11,582 08+
Rents, including $42,450.00 for company's occupancy of its own buildings		44,950 00+
Repairs and expenses (other than taxes) on real estate, including rent of building leased for ninety-nine years		198,512 72
Taxes on real estate		74,677 65
State taxes on premiums		37,119 08+
Insurance Department licenses and fees		18,090 38+
All other licenses, fees and taxes: Federal corporation tax, $6,839.30+; municipal tax, $4,924.63+; internal revenue tax, $3,642.29+; taxes on investments, $1,898.00		17,304 22
Legal expenses		4,115 77+
Advertising		4,071 17+
Printing and stationery		24,893 43+
Postage, telegraph, telephone and express		23,379 69+
Furniture and fixtures		17,620 32+
Stockholders for interest or dividends (amount declared during the year, $375,000.00)		375,000 00
Other disbursements: Special services, $960.77; safety deposit rents, $3,000.00; reference and guide books, $564.04; traveling expenses, $9,570.49; references, $1,112.63; law library, $428.80; petty expenses, $3,351.23; stock registration, $250.00; insurance, $33.36; traveling auditors, $3,178.14; private wire service, $16,850.68; Surety Association expenses, $2,368.95; Towner Rating Bureau, $2,880.00		44,549 09+
Brokerage		358 13
Total disbursements		$2,857,484 10
Balance		$8,767,543 22

Total underwriting expenses, $1,572,358.53, marked thus +.

LEDGER ASSETS.

Book value of real estate	$3,166,047 91
Mortgage loans on real estate, first liens	195,250 00
Book value of bonds and stocks	4,079,952 10
Cash in office and agencies	5,275 00
Deposits in trust companies and banks not on interest	205,288 84
Deposits in trust companies and banks on interest	657,211 44

	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Amount brought forward			$8,299,026 29
Gross premiums in course of collection on policies or renewals:			
Fidelity	$73,605 00	$7,591 44	
Surety	203,603 09	173,718 40	
Totals	$277,208 09	$181,309 84	458,517 93
Ledger assets as per balance			$8,767,543 22

Non-Ledger Assets.

Interest due and accrued on:		
Mortgages	$1,720 85	
Bonds	31,756 24	
Other assets	1,417 70	
Rents due and accrued	10,117 26	
		45,012 05
Gross assets		$8,812,555 27

Deduct Assets Not Admitted.

Premiums in course of collection written prior to October 1, 1911	$181,309 84	
Book value of ledger assets over market value: Stocks and bonds	238,613 60	
Special deposits to secure liabilities	476,953 00	
Total		896,876 44
Total admitted assets		$7,915,678 83

LIABILITIES.

Losses and claims:		
Fidelity—Reported or in process of adjustment, $237,688.70; resisted, $41,909.53; net unpaid claims except liability claims, $279,598.23; estimated expense or investigation and adjustment of unpaid claims, $15,000.00	$294,598 23	
Surety—Reported or in process of adjustment, $348,526.55; resisted, $78,658.36; net unpaid claims except liability claims, $419,267.31; estimated expense of investigation and adjustment of unpaid claims, $15,000.00	434,267 31	
Total unpaid claims and expenses of settlement		$728,865 54
Unearned premiums at 50 per cent on risks running one year or less	$1,281,813 19	
Unearned premiums, pro rata on risks running more than one year	172,224 12	
Total unearned premiums		1,454,037 31
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Fidelity, $7,575.00; surety, $15,188.81		22,763 81
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		12,500 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		39,908 98
Reinsurance		3,211 66
Advance premiums; (100 per cent)		22,897 03
Other liabilities: Reserve for contingent expenses, $30,000.00; checks of other parties in process of collection, $3,942.03		33,942 03
Total		$2,318,126 36
Less liabilities secured by special deposits: Unearned premiums, $90,540.88; unpaid losses, $73,245.62		163,786 50
Total amount of all liabilities except capital		$2,154,339 86

Capital actually paid up in cash	$2,500,000 00	
Surplus over all liabilities	3,261,338 97	
Surplus as regards policyholders		$5,761,338 97
Total liabilities		$7,915,678 83

EXHIBIT OF PREMIUMS.

	Surety.	Fidelity.
In force December 31, 1910	$1,713,324 08	$970,813 55
Written or renewed during the year	1,921,684 77	1,204,434 39
Totals	$3,635,008 85	$2,175,247 94
Deduct expirations and cancellations	1,789,916 50	1,142,518 25
Net in force December 31, 1911	$1,845,092 35	$1,032,729 69
Amount at risk December 31, 1911	$368,306,453 00	$361,733,750 00

Total dividends declared from organization (cash)	$4,662,500 00
Total losses incurred during the year (less reinsurance)	538,077 13

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Fidelity	$19,442 45	$111 93
Surety	30,579 01	805 88
Totals	$50,021 46	$917 81

CALIFORNIA TITLE INSURANCE AND TRUST COMPANY.

410 Montgomery street, San Francisco, California.

(Incorporated February 16, 1886. Commenced business in California in 1886.)

CHAS. PAGE, President. H. P. LAURIE, Secretary.

CAPITAL.

Capital stock paid up in cash	$750,000 00	
Amount of ledger assets December 31st of previous year		$894,320 11

INCOME.

Title—Gross premiums written and renewed during the year, $71,076.60; deduct premiums on policies not collected, $11,963.25	$59,113 35
Interest on mortgage loans, $21,295.87; bonds and dividends on stocks, $3,237.50; from other sources, $2,302.07	26,835 44
Trust earnings	3,911 29
Miscellaneous fees	721 00
Total income	$90,581 08
Sum	$984,901 19

DISBURSEMENTS.

Title—Gross amount paid for losses	$97 65
Commissions or brokerage to agents (less amount received on return premiums and reinsurance)	2,727 75
Salaries, fees and all other compensation of officers, directors, trustees and home office employees	35,682 80
Rents	5,250 00
Taxes on real estate and mortgages	1,305 00

Amount brought forward	$45,063 20
State taxes on premiums	309 22
Insurance Department licenses and fees	30 00
All other licenses, fees and taxes	935 58
Legal expenses	8,700 00
Advertising	183 50
Printing and stationery	1,294 53
Stockholders for interest or dividends	30,000 00
Fire insurance	399 96
Office expenses	3,241 52
Miscellaneous	2,442 60
Total disbursements	$92,600 11
Balance	$892,301 08

LEDGER ASSETS.

Book value of real estate	$35,804 47
Mortgage loans on real estate	348,670 00
Book value of bonds and stocks	75,228 50
Deposits in banks on interest	41,818 44
Accounts receivable	3,704 36
Furniture and fixtures	12,400 33
Plant account	374,669 98
Ledger assets as per balance	$892,301 08

Non-Ledger Assets.

Interest due and accrued on:		
Mortgages	$881 11	
Savings bank account	4,623 97	
Special deposit escrows	104,898 39	
Premiums not collected, October 1, 1911, to December 31, 1911	11,963 25	
		121,485 61
Gross assets		$1,014,667 80

Deduct Assets Not Admitted.

Furniture and fixtures	$12,400 33	
Premiums in course of collection written prior to October 1, 1911	7,628 25	
		20,028 58
Total admitted assets		$994,639 22

LIABILITIES.

Special deposit escrows		$104,898 39
Savings bank accounts		4,623 97
Fund required of title companies		75,000 00
Total amount of all liabilities except capital		$184,522 36
Capital actually paid up in cash	$750,000 00	
Surplus over all liabilities	60,116 86	
Surplus as regards policyholders		810,116 86
Total liabilities		$994,639 22

BUSINESS IN CALIFORNIA DURING 1911.

Title—Gross premiums less return premiums on risks written or renewed during the year	$59,113 35

CASUALTY INSURANCE COMPANY OF AMERICA.

No. 123 William street, New York City, New York.

(Incorporated September, 1903. Commenced business in California Feb. 6, 1905.)

EDWARD W. DE LEON, President. JOHN E. CONNELLY, Secretary and Treasurer.

Agent for service in California: H. LA BOYTEAUX, 244 California Street, S. F.

CAPITAL.

Capital stock paid up in cash	$750,000 00	
Amount of ledger assets December 31st of previous year		$2,696,323 09

INCOME.

Accident and health—Gross premiums written and renewed during the year, $535,774.94; deduct reinsurance, $76,715.72; return premiums on policies canceled, $5,941.46; premiums on policies not taken, $131,307.07: Total deductions, $213,964.25		$321,810 69
Liability—Gross premiums written and renewed during the year, $2,349,649.86; deduct reinsurance, $55,243.99; return premiums on policies canceled, $252,702.32; premiums on policies not taken, $486,007.26: Total deductions, $753,953.57		1,595,696 29
Plate glass—Gross premiums written and renewed during the year, $277,274.15; deduct return premiums on policies canceled, $6,573.06; premiums on policies not taken, $81,170.05: Total deductions, $87,743.11		189,531 04
Steam boiler—Gross premiums written and renewed during the year, $160,860.92; deduct reinsurance, $11,136.91; return premiums on policies canceled, $6,573.06; premiums on policies not taken, $34,586.48: Total deductions, $52,631.24		108,229 68
Burglary and theft—Gross premiums written and renewed during the year, $23,081.58; deduct reinsurance, $333.66; return premiums on policies canceled, $208.08; premiums on policies not taken, $1,428.27: Total deductions, $1,970.01		21,111 57
Installment—Gross premiums written and renewed during the year, $37,469.80; deduct return premiums on policies canceled, $35.15; premiums on policies not taken, $161.10: Total deductions, $196.25		37,273 55
Automobile—Gross premiums written and renewed during the year, $266,380.35; deduct return premiums on policies canceled, $18,802.95; premiums on policies not taken, $52,565.38: Total deductions, $71,368.33		195,012 02
Fly wheel—Gross premiums written and renewed during the year, $13,732.78; deduct reinsurance, $1,789.38; return premiums on policies canceled, $425.90; premiums on policies not taken, $2,152.23: Total deductions, $4,367.51		9,365 27
Automobile property damage—Gross premiums written and renewed during the year, $30,938.71; deduct return premiums on policies canceled, $1,210.86; premiums on policies not taken, $3,216.00: Total deductions, $4,426.86		26,511 85
Workmen's collective—Gross premiums written and renewed during the year, $29,957.93; deduct return premiums on policies canceled, $11,315.22; premiums on policies not taken, $1,003.75: Total deductions, $12,319.08		17,638 85
Industrial—Gross premiums written and renewed during the year		16,573 72
Total net premiums		$2,538,754 53
Policy fees required or represented by applications		786 00
Interest on mortgage loans	$220 00	
Bonds and dividends on stocks, $77,720.93; from other sources, $5,735.25	83,456 18	
Total interest		83,676 18
Agents' balances previously charged off		140 00
Profit on sale or maturity of ledger assets		9,242 29
Total income		$2,632,599 00
Sum		$5,328,922 09

DISBURSEMENTS.

Accident—Gross amount paid for losses, $202,018.32; deduct reinsurance, $45,386.41	$156,631 91
Liability—Gross amount paid for losses, $920,687.78; deduct reinsurance, $9,767.75	910,920 03
Plate glass—Gross amount paid for losses	110,469 24
Steam boiler—Gross amount paid for losses, $11,076.64; deduct reinsurance, $879.97	10,196 67
Burglary and theft—Gross amount paid for losses	520 38
Installment—Gross amount paid for losses	16,252 24
Automobile—Gross amount paid for losses	43,271 12
Automobile property damage—Gross amount paid for losses, $3,458.46; deduct reinsurance, $1,827.67	1,630 79
Workmen's collective—Gross amount paid for losses	16,917 37
Industrial—Gross amount paid for losses	6,123 70
Total net amount paid policyholders for losses	$1,272,933 45
Investigation and adjustment of claims	133,280 94
Policy fees retained by agents	786 00
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	738,210 20
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	143,065 78
Salaries, traveling and all other expenses of agents not paid by commissions	1,181 18
Medical examiners' fees and salaries	3,999 96
Inspections (other than medical and claim)	60,734 87
Rents	12,078 03
State taxes on premiums	34,182 99
Insurance Department licenses and fees	4,007 62
All other licenses, fees and taxes	1,977 47
Legal expenses	2,600 23
Advertising	1,155 80
Printing and stationery	14,634 64
Postage, telegraph, telephone and express	9,295 40
Furniture and fixtures	511 45
Stockholders for interest or dividends	37,500 00
General expense, $96,955.58; advances to agents and solicitors, $18,958.02	28,353 60
Agents' balances charged off	4,448 27
Loss on sale or maturity of ledger assets	414 25
Total disbursements	$2,505,652 13
Balance	$2,823,269 96

LEDGER ASSETS.

Mortgage loans on real estate, first liens	$48,000 00
Book value of bonds and stocks	1,898,598 46
Cash in office	35,522 28
Deposits in trust companies and banks not on interest	12,280 29
Deposits in trust companies and banks on interest	209,488 98

Gross premiums in course of collection on policies or renewals:

	Issued on or after Oct. 1, 1911.	Prior to Oct. 1, 1911.	
Accident	$105,173 82	$1,442 56	
Liability	398,866 74	1,414 90	
Plate glass	31,097 88	66 44	
Steam boiler	29,551 47	263 71	
Burglary and theft	9,520 09	63 64	
Installment	2,882 45		
Automobile	25,091 81	85 43	
Fly wheel	882 94	27 39	
Automobile property damage	5,444 86	74 15	
Workmen's collective	5,260 06	50 62	
Industrial	381 01		
Totals	$613,391 11	$3,488 84	616,879 95

Amount brought forward		$2,820,769 96
Allowance for taxes on New York state bonds		2,500 00
Ledger assets as per balance		$2,823,269 96

Non-Ledger Assets.

Interest due and accrued on:		
Mortgages	$800 00	
Bonds	22,471 59	
Other assets	30,278 99	
		53,550 58
Reinsurance (losses) due from admitted companies		11,542 31
Gross assets		$2,888,362 85

Deduct Assets Not Admitted.

Premiums in course of collection written prior to October 1, 1911	$3,488 84	
Book value of ledger assets over market value	83,371 02	
Total		86,859 86
Total admitted assets		$2,801,502 99

LIABILITIES.

Losses and claims:		
Accident and health—Adjusted, $2,158.14; reported or in process of adjustment, $37,792.69; resisted, $21,200.00; deduct reinsurance, $5,775.00; net unpaid claims except liability claims, $55,375.83; estimated expense of investigation and adjustment of unpaid claims, $1,125.00		$56,500 83
Installment—Reported or in process of adjustment		3,791 00
Industrial—Reported or in process of adjustment		1,494 64
Plate glass—Reported or in process of adjustment		10,968 05
Steam boiler—Reported or in process of adjustment		8,715 98
Burglary and theft—Adjusted, $41.20; reported or in process of adjustment, $726.15; deduct reinsurance, $10.00; net unpaid claims except liability claims, $757.35; estimated expense of investigation and adjustment of unpaid claims, $10.00		767 35
Automobile property damage—Reported or in process of adjustment		2,683 60
Workmen's collective—Adjusted, $187.39; reported or in process of adjustment, $1,198.96; net unpaid claims except liability claims		1,386 85
Net unpaid claims, except liability claims		$86,307 80
Special reserve for unpaid liability losses	$383,644 13	
Total unpaid claims and expenses of settlement		383,644 13
Unearned premiums at 50 per cent on risks running one year or less	$945,312 64	
Unearned premiums, pro rata on risks running more than one year	237,153 07	
Total unearned premiums		1,182,465 71
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident, $26,199.10; liability, $94,017.75; plate glass, $9,788.34; steam boiler, $8,234.94; burglary and theft, $3,241.56; installment, $641.23; automobile, $6,645.33; fly wheel, $258.54; automobile property damage, $1,220.03; workmen's collective, $1,593.20		151,840 02
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		1,000 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		35,970 26
Reinsurance		5,101 87
Total amount of all liabilities except capital		$1,846,329 79
Capital actually paid up in cash	$750,000 00	
Surplus over all liabilities	205,173 20	
Surplus as regards policyholders		955,173 20
Total liabilities		$2,801,502 99

EXHIBIT OF PREMIUMS.

	Accident.	Liability.
In force December 31, 1910	$335,704 04	$1.256.619 23
Written or renewed during the year	535,774 94	2,616,030 21
Totals	$871,478 98	$3.872.649 44
Deduct expirations and cancellations	498,109 52	2.437.711 00
Balance	$373,369 46	$1,434.938 44
Deduct reinsured policies	3.893 84	9.669 39
Net in force December 31, 1911	$369.475 62	$1,425.269 05

	Plate Glass.	Fly Wheel.
In force December 31, 1910	$188.642 81	$18.951 38
Written or renewed during the year	277.274 15	13,732 78
Totals	$465.916 96	$32.684 16
Deduct expirations and cancellations	272,486 87	6,638 20
Net in force December 31, 1911	$193.430 09	$26.045 96

	Industrial.	Steam Boiler.
In force December 31, 1910	-----------	$247.774 88
Written or renewed during the year	$16.573 72	160,860 92
Totals	$16,573 72	$408.635 80
Deduct expirations and cancellations	16,573 72	137.606 91
Balance	-----------	$271.028 89
Deduct reinsured policies	-----------	666 65
Net in force December 31, 1911	-----------	$270,362 24

	Burglary and theft.	Automobile property damage.
In force December 31, 1910	-----------	-----------
Written or renewed during the year	$23,081 58	$30,938 71
Totals	$23,081 58	$30.938 71
Deduct expirations and cancellations	2,199 97	6.313 61
Balance	$20.881 61	$24.625 10
Deduct reinsured policies	256 56	-----------
Net in force December 31, 1911	$20.625 05	$24,625 10

	Instalment.	Workmen's collective.
In force December 31, 1910	-----------	$20.638 58
Written or renewed during the year	$37,469 80	29,957 93
Totals	$37.469 80	$50.596 51
Deduct expirations and cancellations	37.469 80	40.972 76
Net in force December 31, 1911	-----------	$9.623 75

BUSINESS IN THE STATE OF CALIFORNIA DURING THE YEAR.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Accident	$513 80	-----------
Liability	2.197 82	$353 64
Plate glass	2.237 58	319 30
Steam boiler	1.004 00	-----------
Burglary and theft	181 30	-----------
Automobile property damage	43 65	-----------
Totals	$6.178 15	$672 94

CITY ABSTRACT AND TITLE INSURANCE COMPANY.

79 McAllister street, San Francisco, California.

(Incorporated May 23, 1910. Commenced business in California August 29, 1910.)

H. W. Dimond, President. J. H. Humphrey, Secretary.

CAPITAL.

Capital stock paid in cash	$250,000 00	
Amount of ledger assets December 31st of previous year		$282,110 74

INCOME.

Total net premiums (title)	$6,282 50
Interest on mortgage loans, $7,500.00; from other sources, $184.44	7,684 44
Miscellaneous fees	34,751 70
Total income	$48,718 64
Sum	$330,829 38

DISBURSEMENTS.

Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	$163 75
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	27,533 45
Rents	2,933 00
Repairs and expenses (other than taxes) on real estate	1,694 10
Taxes on real estate	269 36
State taxes on premiums	27 44
Insurance Department licenses and fees	30 00
All other licenses, fees and taxes	50 00
Legal expenses	9,300 00
Printing and stationery	974 30
Postage, telegraph, telephone and express	487 05
Furniture and fixtures	1,389 50
Other disbursements: Light, $120.15; commission on abstracts, $833.90	954 05
Decrease in book value of ledger assets	8,404 50
Total disbursements	$54,210 50
Balance	$276,618 88

LEDGER ASSETS.

Mortgage loans on real estate, first liens	$125,000 00
Cash in office	259 58
Deposits in trust companies and banks not on interest	1,593 69
Deposits in trust companies and banks on interest	12,156 34
Gross premiums in course of collection on policies or renewals: Issued on or after October 1, 1911, $277.50; issued prior to October 1, 1911, $107.50	385 00
Bills receivable	4,225 50
Other ledger assets: Furniture and fixtures, $7,873.67; plant, $125,000.00; recording, $125.10	132,998 77
Ledger assets as per balance	$276,618 88

Deduct Assets Not Admitted.

Furniture and fixtures	$7,873 67	
Premiums in course of collection written prior to October 1, 1911	107 50	
Total		7,981 17
Total admitted assets		$268,637 71

LIABILITIES.

Surplus fund		$1,974 24
Capital actually paid up in cash	$250,000 00	
Surplus over all liabilities	16,770 97	
Surplus as regards policyholders		266,770 97
Total liabilities		$268,745 21

EXHIBIT OF PREMIUMS.

In force December 31, 1910	$1,830 00
Written or renewed during the year	6,282 50
Net in force December 31, 1911	$8,112 50

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

Title—Gross premiums less return premiums on risks written or renewed during the year	$6,282 50

CONTINENTAL CASUALTY COMPANY.

Hammond, Indiana. General Office, Chicago, Illinois.

(Incorporated November, 1897. Commenced business in California March 14, 1902.)

H. G. B. ALEXANDER, President. WM. H. BETTS, Secretary.

Agent for service in California: JAS. E. BETTS, San Francisco.

CAPITAL.

Capital stock paid in cash	$300,000 00	
Amount of ledger assets December 31st of previous year		$2,239,164 57

INCOME.

Accident—Gross premiums written and renewed during the year, $2,852,392.51; deduct reinsurance, $15,269.66; return premiums on policies canceled, $19,318.70; premiums on policies not taken, $529,923.17: Total deductions, $564,511.53		$2,287,880 98
Health—Gross premiums written and renewed during the year, $754,801.48; deduct return premiums on policies canceled, $6,452.03; premiums on policies not taken, $109,135.74: Total deductions, $115,587.77		639,213 71
Total net premiums		$2,927,094 69
Policy fees required or represented by applications		135,504 96
Interest on mortgage loans	$33,562 56	
Bonds and dividends on stocks, $23,909.92; from other sources, $1,244.31	25,154 23	
Rents	3,001 00	
Total interest and rents		61,717 79
Agents' balances previously charged off		2,908 42
Increase in book value of ledger assets		360 97
Total income		$3,127,586 83
Sum		$5,366,751 40

DISBURSEMENTS.

Accident—Gross amount paid for losses, $971,613.68; deduct reinsurance, $15,447.65	$956,166 03
Health—Gross amount paid for losses	292,925 25
Total net amount paid policyholders for losses	$1,249,091 28

Investigation and adjustment of claims	$18,126 02
Policy fees retained by agents	135,504 96
Commissions or brokerage to agents (less amounts received on return premiums and reinsurances)	627,493 62
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	312,181 42
Salaries, traveling and all other expenses of agents not paid by commissions	405,643 72
Medical examiners' fees and salaries	14,018 64
Rents	45,632 31
Taxes on real estate	256 49
State taxes on premiums	52,945 92
Insurance department licenses and fees	15,987 34
All other licenses, fees and taxes	5,092 12
Legal expenses	41,626 36
Advertising	23,818 33
Printing and stationery	34,939 50
Postage, telegraph, telephone and express	30,967 37
Stockholders for interest or dividend	60,000 00
Other disbursements: General expense, $31,561.68; bank exchange, $2,002.69	33,564 37
Agents' balances charged off	11,068 04
Loss on sale or maturity of ledger assets	19,652 84
Decrease in book value of ledger assets	58 69
Total disbursements	$3,137,669 34
Balance	$2,229,082 06

LEDGER ASSETS.

Book value of real estate		$54,147 41
Mortgage loans on real estate, first liens		691,950 00
Loans secured by pledge of bonds, stocks or other collaterals		65,000 00
Book value of bonds and stocks		439,460 63
Cash in office		2,000 00
Deposits in trust companies and banks not on interest		20,260 53
Deposits in trust companies and banks on interest		69,360 40
Gross premiums in course of collection on policies or renewals:	Issued on or after October 1, 1911.	
Accident	$529,783 19	
Health	38,760 27	
		568,543 46
Bills receivable		7,874 97
Other ledger assets: Agents' balances, $96,554.64; furniture and fixtures, $73,499.50; cash in hands of postmasters and treasurers in transit, $140,430.52		310,484 66
Ledger assets as per balance		$2,229,082 06

Non-Ledger Assets.

Interest due and accrued on:		
Mortgages	$10,024 50	
Bonds	5,558 17	
Collateral loans	1,300 00	
		16,882 67
Market value of real estate over book value		4,727 69
Gross assets		$2,250,692 32

Deduct Assets Not Admitted.

Agents balances	$96,554 64	
Bills receivable, $7,874.97; furniture and fixtures, $73,499.50	81,374 47	
Book value of ledger assets over market value	9,330 19	
		187,259 30
Total admitted assets		$2,063,433 02

LIABILITIES.

Losses and claims:		
Accident—Reported or in process of adjustment, $169,374.23; resisted, $55,650.00; deduct reinsurance, $2,650.00; net unpaid claims except liability claims, $222,374.23; estimated expense of investigation and adjustment of unpaid claims, $850.00		$223,224 23
Health—Reported or in process of adjustment, $11,960.08; resisted, $2,675.00; net unpaid claims except liability claims, $14,635.08; estimated expense of investigation and adjustment of unpaid claims, $150.00		14,785 08
Net unpaid claims, except liability claims		$238,009 31
Unearned premiums at 50 per cent on risks running one year or less		716,974 68
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident, $84,890.17; health, $8,627.30		93,517 47
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		12,568 80
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		30,000 00
Reinsurance		2,978 03
Advance premiums (100 per cent)		1,188 43
Contingent reserve		220,000 00
Total amount of all liabilities except capital		$1,315,236 72
Capital actually paid up in cash	$300,000 00	
Surplus over all liabilities	448,196 30	
Surplus as regards policyholders		748,196 30
Total liabilities		$2,063,433 02

EXHIBIT OF POLICIES.

	Accident.	Health.
In force December 31, 1910	$1,446,362 80	$117,272 70
Written or renewed during the year	2,852,392 51	754,801 48
Totals	$4,298,755 31	$872,074 18
Deduct expirations and cancellations	2,956,853 89	768,963 57
Balance	$1,341,901 42	$103,110 61
Deduct reinsured policies	11,062 67	
Net in force December 31, 1911	$1,330,838 75	$103,110 61

Total dividends declared from organization: Cash	$552,000 00
Total losses incurred during the year (less reinsurance)	1,207,408 91

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Accident	$114,266 35	$36,430 80
Health	24,799 91	6,433 81
Totals	$139,066 26	$42,864 61

EMPIRE STATE SURETY COMPANY.

84 William street, New York City, New York.

(Incorporated January 30, 1901. Commenced business in California February 25, 1905.)

WM. M. TOMLINS, President. CHARLES I. BROOKS, Secretary.

Agent for service in California: W. S. MULLEN, San Francisco.

CAPITAL.

Capital stock paid up in cash	$500,000 00	
Amount of ledger assets December 31st of previous year		$1,519,664 94

INCOME.

Accident—Gross premiums written and renewed during the year, $5,556.50; deduct reinsurance, $5,714.54; return premiums on policies canceled, $2,688.59; premiums on policies not taken, $4,567.14: Total deductions, $12,970.27		$7,413 77
Health—Gross premiums written and renewed during the year, $2,998.22; deduct reinsurance, $3,259.28; return premiums on policies canceled, $921.31; premiums on policies not taken, $2,223.68: Total deductions, $6,404.27		3,406 05
Liability—Gross premiums written and renewed during the year, $23,612.06; deduct reinsurance, $9,891.84; return premiums on policies canceled, $7,242.14; premiums on policies not taken, $14,557.62: Total deductions, $31,691.60		8,079 54
Fidelity—Gross premiums written and renewed during the year, $148,880.15; deduct reinsurance, $12,922.21; return premiums on policies canceled, $7,829.21; premiums on policies not taken, $17,906.12: Total deductions, $38,657.54		110,222 61
Surety—Gross premiums written and renewed during the year, $468,617.94; deduct reinsurance, $39,122.35; return premiums on policies canceled, $10,178.22; premiums on policies not taken, $90,021.38: Total deductions, $139,321.95		329,295 99
Plate glass—Gross premiums written and renewed during the year, $121.42; deduct reinsurance, $435.27; return premiums on policies canceled, $510.45; premiums on policies not taken, $1,280.43: Total deductions, $2,226.15		2,104 73
Steam boiler		45 00
Burglary and theft—Gross premiums written and renewed during the year, $160,778.76; deduct reinsurance, $14,832.34; return premiums on policies canceled, $7,524.93; premiums on policies not taken, $37,670.07: Total deductions, $60,027.34		100,751 42
Sprinkler		9 45
Workmen's collective—Gross premiums written and renewed during the year, $90.49; deduct premiums on policies not taken, $72.00		18 49
Total net premiums		$519,229 97
Interest on mortgage loans	$12,220 64	
Bonds and dividends on stocks, $28,546.28; from other sources, $1,347.12	29,893 40	
Rents	728 60	
Total interest and rents		42,842 64
Borrowed money		85,000 00
Profit on sale or maturity of ledger assets		162 50
Total income		$647,235 11
Sum		$2,166,900 05

DISBURSEMENTS.

Accident—Gross amount paid for losses, $7,769.30; deduct reinsurance, $400.00	$7,369 30
Health—Gross amount paid for losses	5,498 92
Liability—Gross amount paid for losses, $63,606.43; deduct salvage, $100.00	63,506 43
Fidelity—Gross amount paid for losses, $51,074.26; deduct salvage, $21,760.79	29,313 47
Surety—Gross amount paid for losses, $189,467.64; deduct salvage, $42,493.17	146,974 47
Plate glass—Gross amount paid for losses, $9,130.15; deduct salvage, $100.74	9,029 41
Burglary and theft—Gross amount paid for losses, $49,454.91; deduct reinsurance, $9,029.48; salvage, $298.32: Total deductions, $9,327.86	40,127 05
Workmen's collective—Gross amount paid for losses	124 60
Investigation and adjustment of claims	90,874 13

Amount brought forward		$392,817 78
Commissions or brokerage to agents (less amount received on return premiums and reinsurance)		162,574 74
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees		81,320 26
Salaries, traveling and all other expenses of agents not paid by commissions		51,992 97
Inspections (other than medical and claim)		633 18
Rents		9,099 95
Repairs and expenses (other than taxes) on real estate		535 25
Taxes on real estate		413 14
State taxes on premiums		13,110 11
Insurance Department licenses and fees		6,057 21
Legal expenses		2,937 56
Advertising		5,531 88
Printing and stationery		7,366 62
Postage and express, $3,424.01; telegraph and telephone, $3,983.06		7,407 07
Furniture and fixtures		160 10
Borrowed money		55,000 00
Other disbursements:		
Bradstreet's and Dun's	$1,784 50	
Examinations	3,795 11	
Service bureau	1,000 00	
Dues to association	1,686 14	
Rating bureau	916 63	
Miscellaneous	5,962 93	
Bonds executed	1,235 70	
		16,381 01
Profit and loss		39 00
Agents' balances charged off		723 07
Loss on sale or maturity of ledger assets		17,960 00
Total disbursements		$831,740 70
Balance		$1,335,159 35

LEDGER ASSETS.

Book value of real estate			$86,621 00
Mortgage loans on real estate, first liens, $230,654.70; other than first, $2,051.69			232,706 39
Book value of bonds and stocks			698,154 99
Cash in office			9,935 17
Deposits in trust companies and banks not on interest			27,821 71
Deposits in trust companies and banks on interest			21,640 61
Gross premiums in course of collection on policies or renewals:	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Accident		$448 20	
Liability	$48 07	9,725 83	
Fidelity	13,201 45	4,913 74	
Surety	70,942 19	76,865 63	
Burglary and theft	26,522 95	1,306 37	
Workmen's collective		99 43	
Totals	$110,714 66	$93,359 20	204,073 86
Bills receivable, $12,502.71; accounts receivable, $2,204.11		$14,706 82	
Other ledger assets: Agents' balances, $18,128.92; advanced to adjusters and special agents, $1,073.17		19,202 09	
Sundry ledger accounts, $17,402.20; accrued interest paid, $17.50		17,419 70	
Cash in suspended banks		2,877 01	
			54,205 62
Ledger assets as per balance			$1,335,159 35

Non-Ledger Assets.

Interest due and accrued on:		
Mortgages	$4,713 14	
Bonds	4,742 47	
Rents due and accrued	804 33	
		$10,259 94
Cash payment due on account Ames College contract	$3,293 51	
Cash payment due on account Le Grand Freel contract	3,107 51	
Cash payment due on account Marsh Bridge contract	3,160 60	
		9,561 62
Gross assets		$1,354,980 91

Deduct Assets Not Admitted.

Accounts, $1,459.91; bills receivable, $12,502.71	$13,962 62	
Premiums in course of collection written prior to October 1, 1911	93,359 20	
Mortgages other than first	2,051 69	
Book value of ledger assets over market value:		
Stocks, $30,707.50; bonds, $28,047.49	58,754 99	
Real estate	1,681 89	
Agents' balances, $18,128.92; advanced to adjusters and special agents, $1,073.17	19,202 09	
Sundry ledger accounts	17,402 20	
Total		206,414 68
Total admitted assets		$1,148,566 23

LIABILITIES.

Losses and claims:		
Accident—Adjusted, $1,100.00; resisted, $2,812.80; deduct reinsurance, $1,000.00; net unpaid claims except liability claims		$2,912 80
Health—Resisted, $507.14; deduct reinsurance, $250.00; net unpaid claims except liability claims		257 14
Fidelity—Adjusted, $344.07; reported or in process of adjustment, $33,661.92; resisted, $15,431.80; net unpaid claims except liability claims		49,437 79
Surety—Adjusted, $3,784.00; reported or in process of adjustment, $40,476.82; resisted, $67,588.69; deduct reinsurance, $7,500.00; net unpaid claims except liability claims		104,349 51
Plate glass—Net unpaid claims except liability claims		44 37
Burglary and theft—Adjusted, $956.38; reported or in process of adjustment, $6,193.43; resisted, $2,500.00; deduct reinsurance, $457.46; net unpaid claims except liability claims		9,192 25
Sprinkler—Net unpaid claims except liability claims		500 00
Net unpaid claims, except liability claims		$166,693 96
Special reserve for unpaid liability losses		61,825 00
Total unpaid claims and expenses of settlement		$228,518 96
Unearned premiums at 50 per cent on risks running one year or less	$242,524 34	
Unearned premiums, pro rata on risks running more than one year	55,363 19	
Total unearned premiums		297,887 53
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Liability, $12.50; fidelity, $3,407.97; surety, $17,097.07; burglary and theft, $8,752.57		29,268 11
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		2,450 33
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		6,000 00
Due and to become due for borrowed money		30,000 00
Reinsurance and company insurance		6,605 02
Total amount of all liabilities except capital		$600,729 95

Amount brought forward		$690,729 95
Capital actually paid up in cash	$500,000 00	
Surplus over all liabilities	47,836 28	
Surplus as regards policyholders		547,836 28
Total liabilities		$1,148,566 23

EXHIBIT OF PREMIUMS.

	Surety.	Fidelity.	Burglary and Theft.
In force December 31, 1910	$377,311 71	$122,859 45	$132,925 56
Written or renewed during the year	468,617 94	148,880 15	160,778 76
Totals	$845,929 65	$271,739 60	$293,704 32
Deduct expirations and cancellations	453,171 57	144,368 91	153,705 53
Balance	$392,758 08	$127,370 69	$139,998 79
Deduct reinsurance policies	38,407 84	12,980 45	16,010 85
Net in force December 31, 1911	$354,350 24	$114,390 24	$123,987 94
Amount at risk December 31, 1911	$71,578,748 48	$52,047,559 20	

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Accident	$913 31	$30 00
Health	345 34	
Liability	2,528 78	1,418 50
Fidelity	5,770 25	671 20
Surety	24,397 68	19,433 86
Plate glass	50 27	3 50
Burglary and theft	1,937 23	890 73
Totals	$35,842 32	$22,447 79

UNITED STATES BRANCH OF THE EMPLOYER'S LIABILITY ASSURANCE CORPORATION, LTD.,

London, England.

No. 33 Broad Street, Boston, Massachusetts.

(Incorporated October 25, 1880. Commenced business in California, 1886.)

SAMUEL APPLETON, United States Manager.

Agent for service in California: CHAS. J. O'KELL, San Francisco.

CAPITAL.

Statutory deposit	$250,000 00	
Amount of ledger assets December 31st of previous year		$5,648,792 37

INCOME.

Accident—Gross premiums written and renewed during the year, $308,883.83; deduct reinsurance, $403.00; return premiums on policies canceled, $20,729.99; premiums on policies not taken, $23,332.41: Total deductions, $44,465.40	$264,418 43
Health—Gross premiums written and renewed during the year, $103,452.72; deduct reinsurance, $84.00; return premiums on policies canceled, $8,954.22; premiums on policies not taken, $12,882.22: Total deductions, $21,920.44	81,532 28

Liability—Gross premiums written and renewed during the year, $4,758,777.35; deduct reinsurance, $363.97; return premiums on policies canceled, $536,078.51; premiums on policies not taken, $240,949.72: Total deductions, $777,392.20	$3,981,385 15
Fidelity—Gross premiums written and renewed during the year, $115,425.48; deduct reinsurance, $403.12; return premiums on policies canceled, $25,013.36; premiums on policies not taken, $4,248.52: Total deductions, $29,665.00	85,760 48
Steam boiler—Gross premiums written and renewed during the year, $14,688.72; deduct return premiums on policies canceled, $1,144.82; premiums on policies not taken, $1,330.88: Total deductions, $2,475.70	12,213 02
Burglary and theft—Gross premiums written and renewed during the year, $121,815.97; deduct reinsurance, $1,342.00; return premiums on policies canceled, $8,867.93; premiums on policies not taken, $8,319.97: Total deductions, $18,529.90	103,286 07
Automobile property damage—Gross premiums written and renewed during the year, $496,796.35; deduct return premiums on policies canceled, $80,882.15; premiums on policies not taken, $61,003.48: Total deductions, $141,885.63	354,910 72
Workmen's collective—Gross premiums written and renewed during the year, $95,287.61; deduct return premiums on policies canceled, $15,454.15; premiums on policies not taken, $2,601.09: Total deductions, $18,055.24	77,232 37
Total net premiums	$4,960,738 52
Bonds and dividends on stocks, $184,355.93; from other sources, $1,670.22	186,026 15
Agents' balances previously charged off	38 63
Increase in book value of ledger assets	32,806 25
Total income	$5,179,609 55
Sum	$10,828,401 92

DISBURSEMENTS.

Accident—Gross amount paid for losses, $137,324.30; deduct reinsurance, $500.00	$136,824 30
Health—Gross amount paid for losses	38,851 97
Liability—Gross amount paid for losses	1,711,328 88
Fidelity—Gross amount paid for losses, $56,179.52; deduct salvage, $10,686.29	45,493 23
Steam boiler—Gross amount paid for losses	914 20
Burglary and theft—Gross amount paid for losses	23,479 35
Automobile property damage—Gross amount paid for losses	134,552 80
Workmen's collective—Gross amount paid for losses	30,665 27
Total net amount paid policyholders for losses	$2,122,110 00
Investigation and adjustment of claims	401,057 32
Commissions or brokerage to agents (less amount received on return premiums and reinsurance)	1,309,271 49
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	102,994 00
Salaries, traveling and all other expenses of agents not paid by commissions	39,559 72
Medical examiners' fees and salaries	124 00
Inspections (other than medical and claim)	50,415 72
Rents	30,304 52
State taxes on premiums	77,278 06
Insurance Department licenses and fees	7,289 48
All other licenses, fees and taxes	8,125 82
Legal expenses	4,858 13
Advertising	9,944 89
Printing, stationery and supplies	38,579 88
Postage, telegraph, telephone and express	29,156 11
Furniture and fixtures	5,924 88

Amount brought forward	$4,236,094 02
Remitted to head office	565,883 46
Other disbursements: Investment expenses, $860.75; miscellaneous expenses, $9,382.27	10,243 02
Agents' balances charged off	1,697 51
Decrease in book value of ledger assets	17,064 37
Total disbursements	$4,831,882 38
Balance	$5,996,519 54

LEDGER ASSETS.

Book value of bonds and stocks			$4,984,702 50
Cash in office			2,422 58
Deposits in trust companies and banks not on interest			877 42
Cash deposited by trustees with Kidder, Peabody & Co. on interest			36,392 29
Deposits in trust companies and banks on interest			1,184 45
Gross premiums in course of collection on policies or renewals:	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Accident	$45,896 84	$1,116 03	
Health	15,923 39	692 25	
Liability	758,702 92	28,770 78	
Fidelity	14,050 05	52 82	
Steam boiler	2,810 01	----------	
Burglary and theft	21,543 42	104 18	
Automobile property damage	62,756 92	586 14	
Workmen's collective	14,986 72	2,947 83	
Totals	$936,670 27	$34,270 03	970,940 30
Ledger assets as per balance			$5,996,519 54

Non-Ledger Assets.

Interest due and accrued on bonds	65,412 06
Gross assets	$6,061,931 60

Deduct Assets Not Admitted.

Premiums in course of collection written prior to October 1, 1911	34,270 03
Total admitted assets	$6,027,661 57

LIABILITIES.

Losses and claims:	
Accident—Reported or in process of adjustment, $46,028; resisted, $16,397; net unpaid claims, except liability claims, $62,425; estimated expense of investigation and adjustment of unpaid claims, $3,285	$65,710 00
Health—Reported or in process of adjustment, $10,113; estimated expense of investigation and adjustment of unpaid claims, $532	10,645 00
Fidelity—Reported or in process of adjustment, $7,580; resisted, $21,940; net unpaid claims, except liability claims, $29,520; estimated expense of investigation and adjustment of unpaid claims, $1,550	31,070 00
Burglary and theft—Reported or in process of adjustment, $6,303; resisted, $4,750; net unpaid claims, except liability claims, $11,053; estimated expense of investigation and adjustment of unpaid claims, $582	11,635 00
Automobile property damage—Reported or in process of adjustment, $25,883; resisted, $2,493; net unpaid claims, except liability claims, $28,376; estimated expense of investigation and adjustment of unpaid claims, $1,494	29,870 00
Workmen's collective—Reported or in process of adjustment, $10,648; resisted, $50; net unpaid claims, except liability claims, $10,698; estimated expense of investigation and adjustment of unpaid claims, $562	11,260 00
Net unpaid claims, except liability claims	$160,190 00

Special reserve for unpaid liability losses		$1,508,191 00
Unearned premiums at 50 per cent on risks running one year or less ($3,936,607.40)	$1,968,303 70	
Unearned premiums, pro rata on risks running more than one year ($491,879.10)	253,298 51	
Total unearned premiums		2,221,602 21
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident, $17,450.29; health, $5,646.82; liability, $222,387.71; fidelity, $3,877.12; steam boiler, $835.39; burglary and theft, $7,317.71; automobile property damage, $18,609.69; workmen's collective, $3,286.05		279,410 78
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		40,000 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		60,000 00
Total		$4,269,393 99
Statutory deposit	$250,000 00	
Surplus over all liabilities	1,508,267 58	
Surplus as regards policyholders		1,758,267 58
Total liabilities		$6,027,661 57

EXHIBIT OF PREMIUMS.

	Accident.	Health.
In force December 31, 1910	$246,224 85	$70,862 56
Written or renewed during the year	308,883 83	103,452 72
Totals	$555,108 68	$174,315 28
Deduct expirations and cancellations	297,466 16	96,608 60
Balance	$257,642 52	$77,706 68
Deduct reinsured policies	397 00	84 00
Net in force December 31, 1911	$257,245 52	$77,622 68

	Liability.	Fidelity.
In force December 31, 1910	$3,123,482 20	$115,091 54
Written or renewed during the year	4,758,777 35	115,425 48
Totals	$7,882,259 55	$230,517 02
Deduct expirations and cancellations	4,433,339 81	149,235 40
Balance	$3,448,919 74	$81,281 62
Deduct reinsured policies	1,120 02	403 12
Net in force December 31, 1911	$3,447,799 72	$80,878 50
Amount at risk December 31, 1911		$23,870,555 00

	Steam boiler.	Burglary and theft.
In force December 31, 1910	$25,554 36	$119,290 82
Written or renewed during the year	14,688 72	121,815 97
Totals	$40,243 08	$241,106 79
Deduct expirations and cancellations	8,220 97	98,026 98
Balance	$32,022 11	$143,079 81
Deduct reinsured policies	----------	1,726 38
Net in force December 31, 1911	$32,022 11	$141,353 43

	Automobile property damage.	Workmen's collective.
In force December 31, 1910	$284,941 51	$35,260 07
Written or renewed during the year	496,796 35	95,287 61
Totals	$781,737 86	$130,547 68
Deduct expirations and cancellations	430,537 95	90,183 05
Net in force December 31, 1911	$351,199 91	$40,364 63

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Accident	$27,950 91	$10,944 23
Health	4,657 92	2,252 28
Liability	117,185 96	21,471 19
Fidelity	2,178 80	700 20
Burglary and theft	3,132 66	1,217 20
Automobile property damage	13,009 08	8,295 69
Workmen's collective	1,461 99	208 45
Totals	$169,577 32	$45,089 24

EQUITABLE SURETY COMPANY.

St. Louis, Missouri.

(Incorporated March 28, 1911. Commenced business in California June, 1911.)

James E. Smith, President. Walter H. West, Secretary.

Agent for service in California: Jos. D. Redding, San Francisco.

CAPITAL.

Capital stock paid up in cash	$1,000,000 00	
Surplus paid in by stockholders	250,000 00	
Extended at		$1,250,000 00

INCOME.

Fidelity—Gross premiums written and renewed during the year, $105,019.81; deduct reinsurance, $2,523.36; return premiums on policies canceled, $5,788.13	$96,708 32
Surety—Gross premiums written and renewed during the year, $154,368.84; deduct reinsurance, $12,265.92; return premiums on policies canceled, $7,529.11	134,573 81
Total net premiums	$231,282 13
Interest on mortgage loans, $978.08; collateral loans, $861.11; bonds and dividends on stocks, $24,570.07; from other sources, $3,377.70	29,786 96
Accrued interest between purchase and sale of $50,000 Western Maryland Railroad bonds	594 45
Subscription of stockholders to capital	1,000,000 00
Premiums paid by stockholders on capital	250,000 00
Profit on sale or maturity of ledger assets	656 25
Total income	$1,512,319 79

DISBURSEMENTS.

Fidelity—Gross amount paid for losses, $176.32; deduct salvage, $5.15	$171 17
Surety—Net amount paid policyholders for losses	131 00
Total net amount paid policyholders for losses	$302 17
Investigation and adjustment of claims	188 46
Commissions or brokerage to agents (less amount received on return premiums and reinsurance)	28,827 91
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	40,119 83
Salaries, traveling and all other expenses of agents not paid by commissions	40,225 30
Rents	2,250 00

State taxes on premiums	$12 17
Insurance Department licenses and fees	4,688 68
All other licenses, fees and taxes	435 00
Legal expenses	325 00
Advertising	1,579 53
Printing and stationery	9,758 91
Postage, telegraph, telephone and express	2,905 29
Furniture and fixtures	4,196 77
Organization expenses	26,062 80
General expense	3,778 75
Total disbursements	$165,656 57
Balance	$1,346,663 22

LEDGER ASSETS.

Mortgage loans on real estate, first liens			$40,000 00
Book value of bonds and stocks			1,081,406 19
Cash in office			2,978 67
Deposits in trust companies and banks not on interest			27,847 11
Deposits in trust companies and banks on interest			119,740 24
Gross premiums in course of collection on policies or renewals:			
	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Fidelity	$20,836 12	$318 29	
Surety	45,938 41	529 01	
Totals	$66,774 53	$847 30	67,621 83
New York excise current loss fund		1,912 18	
New York excise reserve fund		5,157 00	
			7,069 18
Ledger assets as per balance			$1,346,663 22

Non-Ledger Assets.

Interest accrued on:		
Mortgages	$472 24	
Bonds	9,813 67	
		10,285 91
Market value of bonds and stocks over book value		1,867 59
Gross assets		$1,358,816 72

Deduct Assets Not Admitted.

Premiums in course of collection written prior to October 1, 1911	847 30
Total admitted assets	$1,357,969 42

LIABILITIES.

Losses and claims:		
Fidelity—Reported or in process of adjustment		$1,053 74
Surety—Reported or in process of adjustment		1,758 28
Net unpaid claims, except liability claims		$2,812 02
Unearned premiums, New York excise, 75 per cent on risks running one year or less	$22,174 36	
Unearned premiums at 50 per cent on risks running one year or less	82,744 94	
Unearned premiums, pro rata on risks running more than one year	14,003 19	
Total unearned premiums		118,922 49
Commissions—Fidelity, $3,961.27; surety, $9,761.70		13,722 97
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		2,337 45
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		4,464 33
Reinsurance		8,065 50
Total		$150,324 76

Amount brought forward		$150,324 76
Capital actually paid up in cash	$1,000,000 00	
Surplus over all liabilities	207,644 66	
Surplus as regards policyholders		1,207,644 66
Total liabilities		$1,357,969 42

EXHIBIT OF PREMIUMS.

	Surety.	Fidelity.
Written or renewed during the year	$154,368 84	$105,019 81
Deduct expirations and cancellations	21,562 78	7,605 62
Balance	$132,806 16	$97,414 19
Deduct reinsured policies	4,416 29	18,449 86
Net in force December 31, 1911	$128,389 87	$78,964 33
Amount at risk December 31, 1911	$22,298,432 34	$17,937,779 72

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.
Fidelity	$1,378 60
Surety	1,497 56
Total	$2,876 16

FEDERAL CASUALTY COMPANY.

533 Majestic Building, Detroit, Michigan.

(Incorporated March 19, 1906. Commenced business in California, 1906.)

V. D. CLIFF, President. PETER PATTERSON, Secretary.

Agent for service in California: W. E. LOWER, Los Angeles.

CAPITAL.

Capital stock paid up in cash	$200,000 00	
Amount of ledger assets December 31st of previous year		$288,886 07

INCOME.

Accident and health—Gross premiums written and renewed during the year, $351,330.27; deduct return premiums on policies canceled, $479.34	$350,850 93
Policy fees required or represented by applications (estimated)	44,021 00
Bonds and dividends on stocks, $11,925.65; from other sources, $291.39	12,217 04
Profit on sale or maturity of ledger assets	446 28
Increase in book value of ledger assets: Bonds, $450.00; stocks, $11,737.50	12,187 50
Total income	$419,722 75
Sum	$708,608 82

DISBURSEMENTS.

Accident and health—Gross amount paid for losses	$145,026 02
Policy fees retained by agents	43,828 39
Commissions or brokerage to agents (less amount received on return premiums and reinsurance), accident and health	64,873 52

Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	$23,080 59
Salaries, traveling and all other expenses of agents not paid by commissions	32,767 58
Medical examiners' fees and salaries	1,207 08
Rents	7,173 66
State taxes on premiums	6,628 10
Insurance Department licenses and fees	3,218 41
Legal expenses	667 22
Advertising	2,315 01
Printing and stationery	5,078 53
Postage, telegraph, telephone and express	7,039 27
Furniture and fixtures	307 91
Stockholders for interest or dividends	25,000 00
Funds in suspended bank	316 40
Agents' balances charged off	191 52
Loss on sale or maturity of ledger assets: Bonds, $2,682.63; stocks, $2,050.00	4,732 63
Decrease in book value of ledger assets (premium paid)	1,955 80
Total disbursements	$377,477 15
Balance	$331,131 67

LEDGER ASSETS.

Book value of bonds and stocks: Bonds, $298,000.00; stocks, $25,000.00	$323,000 00
Cash in office	1,781 13
Deposits in trust companies and banks not on interest	6,350 54
Ledger assets as per balance	$331,131 67

Non-Ledger Assets.

Bonds	5,752 89
Gross assets	$336,884 56

Deduct Assets Not Admitted.

Book value of ledger assets over market value, per schedule "D"	604 10
Total admited assets	$336,280 46

LIABILITIES.

Losses and claims:		
Accident and health—Reported or in process of adjustment, $448.00; resisted, $10.00		458 00
Claims pending at close of year 1910 averaged $40.10, so we estimate 458 claims		18,445 80
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident and health		3,000 00
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		500 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		6,500 00
Dividends declared and unpaid to stockholders		10,000 00
Advance premiums (100 per cent)		6,434 15
Total		$44,879 95
Capital actually paid up in cash	$200,000 00	
Surplus over all liabilities	91,400 51	
Surplus as regards policyholders		291,400 51
Total liabilities		$336,280 46

EXHIBIT OF POLICIES.

	Accident and health.
In force December 31, 1910	$4,901 75
Written or renewed during the year	350,850 93
Totals	$355,752 68
Deduct expirations and cancellations	349,318 53
Net in force December 31, 1911	$6,434 15
Total dividends declared from organization: Cash, $111,000.00; stock, $100,000.00	$210,000 00
Total losses incurred during the year (less reinsurance)	145,026 02

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

Gross premiums less return premiums on risks written or renewed during the year: Accident and health	$7,359 05
Gross losses paid	1,311 10

FIDELITY ACCIDENT COMPANY.

Merrill Building, Saginaw, Michigan.

(Incorporated June 21, 1909. Commenced business in California July 16, 1909.)

J. W. Fordney, President. W. H. Howland, Secretary.

Agent for service in California: Chas. A. Bartlett, Los Angeles.

CAPITAL.

Capital stock paid up in cash	$100,000 00	
Amount of ledger assets December 31st of previous year		$120,940 26

INCOME.

Accident and health—Gross premiums written and renewed during the year, $107,001.34; deduct return premiums on policies canceled, $284.38	$106,716 96
Policy fees required or represented by applications	27,801 00
Collateral loans, $487.09; bonds and dividends on stocks, $5,198.66; from other sources, $16.08	5,701 83
Premiums on bonds sold	27 25
Total income	$140,247 04
Sum	$261,187 30

DISBURSEMENTS.

Accident and health—Gross amount paid for losses	$45,986 58
Investigation and adjustment of claims	1,217 84
Policy fees retained by agents	27,801 00
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	12,100 09
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	10,292 28
Salaries, traveling and all other expenses of agents not paid by commissions	22,235 88
Rents	840 00
State taxes on premiums	855 22
Insurance Department licenses and fees	1,757 43
All other licenses, fees and taxes	53 62
Legal expenses	8 50
Advertising	241 57

Printing and stationery	$2,128 12
Postage, telegraph, telephone and express	3,469 93
Stockholders for interest or dividends	5,000 00
Miscellaneous office expense	2,295 52
Premiums on bonds	689 10
Total disbursements	$137,072 68
Balance	$124,114 62

LEDGER ASSETS.

Book value of bonds and stocks	$111,700 00
Deposits in trust companies and banks on interest	12,414 62
Ledger assets as per balance	$124,114 62

Non-Ledger Assets.

Interest due and accrued on bonds	2,038 28
Market value of bonds and stocks over book value	1,667 50
Gross assets	$127,820 40

LIABILITIES.

Accident and health—Reported or in process of adjustment, $5,800; estimated expense of investigation and adjustment of unpaid claims, $15,000		$5,950 00
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911—Accident and health		600 00
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		400 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		600 00
Advance premiums (100 per cent)		5,991 45
Total		$13,541 45
Capital actually paid up in cash	$100,000 00	
Surplus over all liabilities	14,278 95	
Surplus as regards policyholders		114,278 95
Total liabilities		$127,820 40

EXHIBIT OF PREMIUMS.

	Accident and health.
Written during 1910	$106,716 00
Deduct expirations and cancellations	106,716 00

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

Gross premiums less return premiums on risks written or renewed during the year: Accident and health	$958 15
Gross losses paid	310 60

FIDELITY AND CASUALTY COMPANY.

92 Liberty street and 97 Cedar street, New York City, New York.

(Incorporated March 20, 1876. Commenced business in California March 4, 1881.)

Robert J. Hillas, President. Theodore E. Gaty, Secretary.

Agent for service in California: Chas. J. Bosworth, San Francisco.

CAPITAL.

Capital stock paid up in cash	$1,000,000 00	
Amount of ledger assets December 31st of previous year		$9,779,775 95

INCOME.

Accident—Gross premiums written and renewed during the year. $2.823.036.91; deduct reinsurance, $204,164.16; return premiums on policies canceled. $63,111.02: premiums on policies not taken, $644,305.91: Total deductions, $911,581.09		$1.911.455.82
Health—Gross premiums written during the year, $1.744.801.56; deduct reinsurance, $38,378.48; return premiums on policies canceled. $34.244.10; premiums on policies not taken, $448.991.85: Total deductions. $521.614.43		1.223.187 13
Liability—Gross premiums written and renewed during the year, $3.831,439.62; deduct reinsurance, $451.57; return premiums on policies canceled, $160,666.82; premiums on policies not taken. $630.132.09: Total deductions, $791.250.48		3.040.189 14
Fidelity—Gross premiums written and renewed during the year. $383.054.01; deduct reinsurance, $35,292.41; return premiums on policies canceled. $28,101.46; premiums on policies not taken. $61.688.01: Total deductions. $125.081.88		257,972 13
Surety—Gross premiums written and renewed during the year, $270.162.76; deduct reinsurance, $18.906.53; return premiums on policies canceled. $4.226.57; premiums on policies not taken. $18.850.80: Total deductions, $41,983.90		228.178 86
Plate glass—Gross premiums written and renewed during the year. $625,830.62; deduct reinsurance, $511.24; return premiums on policies canceled. $14.328.16; premiums on policies not taken. $140.467.82: Total deductions, $155,307.22		470.523 40
Steam boiler—Gross premiums written and renewed during the year. $589,017.17; deduct reinsurance. $40.058.21; return premiums on policies canceled, $44.933.47; premiums on policies not taken. $110,604.38: Total deductions, $195,596.06		393.421 11
Burglary and theft—Gross premiums written and renewed during the year, $715,088.23; deduct reinsurance, $46,879.83; return premiums on policies canceled, $26,718.57; premiums on policies not taken, $108,057.60: Total deductions, $181,656.00		533,432 23
Fly wheel—Gross premiums written and renewed during the year. $116.869.34; deduct return premiums on policies canceled. $8.230.69; premiums on policies not taken, $19.310.93: Total deductions. $27.541.62		89.327 72
Workmen's collective—Gross premiums written and renewed during the year, $36,159.63; deduct return premiums on policies canceled. $6,805.14; premiums on policies not taken. $6.289.93: Total deductions, $13,095.07		23.064.56
Total net premiums		$8.170.752 10
Collateral loans	$115 82	
Bonds and dividends on stocks, $329,435.73; from other sources, $3,366.15	332,801 88	
Rents	115,933 03	
Total interest and rents		448.850 73
Suspense account	$35 83	
Profit and loss account	2 38	
Fidelity insurance fund (subscriptions from agents and employees)	1.441 61	
		1,479 82
Agents' balances previously charged off		50 00
Total income		$8.621.132 65
Sum		$18,400.908 60

DISBURSEMENTS.

Accident—Gross amount paid for losses, $980,738.44; deduct reinsurance, $136.302.19		$844.436 25
Health—Gross amount paid for losses, $608,955.95; deduct reinsurance, $21,179.20		587.776 75
Liability—Gross amount paid for losses. $1.198,779.94; deduct reinsurance, $387.40; salvage, $23,847.63: Total deductions. $24.235.03		1.174.544 91
Fidelity—Gross amount paid for losses. $90,007.54; deduct reinsurance, $825.00; salvage, $44.850.08: Total deductions. $45.675.08		44.332 46
Surety—Gross amount paid for losses, $83.348.36; deduct reinsurance. $26,250.00: salvage. $13.127.65: Total deductions, $39,377.65		43.970 71
Plate glass—Gross amount paid for losses. $183.440.41; deduct reinsurance. $125.82; salvage. $6,460.79: Total deductions, $6.586.61		176.853 80
Steam boiler—Gross amount paid for losses, $45.967.59; Deduct reinsurance, $4.761.82; salvage, $269.59: Total deductions, $5.031.41		40.936 18
Burglary and theft—Gross amount paid for losses. $170.878.24: rereinsurance, $5.528.48; salvage, $3.081.52: Total deductions. $8,609.69		162.268 55
Fly wheel—Gross amount paid for losses. $29.925.42; salvage, $160.00: Total deductions. $160.00		29.765 42
Workmen's collective—Gross amount paid for losses. $9.925.36; salvage. $15.57: Total deductions. $15.57		9,909 79
Total net amount paid for losses		$3.114.794 82
Investigation and adjustment of claims		585,063 15
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)		2,185.026 99
Salaries. fees and all other compensation of officers, directors, trustees, and home office employees		588.188 06
Salaries. traveling and all other expenses of agents not paid by commissions		509.123 10
Medical examiners' fees and salaries		10.349 99
Inspections (other than medical and claim)		237.281 27
Rents		80.339 76
Repairs and expenses (other than taxes) on real estate		45.696 86
Taxes on real estate		22.481 71
State taxes on premiums		117.236 68
Insurance Department licenses and fees		16.251 81
All other licenses, fees and taxes		8.513 49
Legal expenses		4.445 01
Advertising		5.683 16
Printing and stationery		128.920 17
Postage. telegraph. telephone and express		41.881 89
Furniture and fixtures		13.790 30
Stockholders for interest or dividends		190.000 00
Exchange and collection fees. $2.647.74; subscription, $577.80	$3,225 54	
Interest, $3,094.01: trustees' premiums, $1.120.04: premiums paid in advance December 31. 1910. $3.000.00	7.214 05	
Payments on account of Munich Reinsurance Co., $12,500.00	10.759 78	
Profit and loss account. $1.126.42; sundries. $15.054.39	16.180 81	
		37.380 18
Decrease in book value of ledger assets		26 51
Total disbursements		$7.949.070 53
Balance		$10.451.838 07

LEDGER ASSETS.

Book value of real estate			$1,404,656 02
Book value of bonds and stocks			7,123,400 97
Cash in office			7,466 12
Deposits in trust companies and banks not on interest			204,365 18
Deposits in trust companies and banks on interest			162,366 42
Gross premiums in course of collection on policies or renewals:			
	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Accident	$157,489 68	$42,735 15	
Health	310,579 82	28,351 72	
Liability	444,034 77	89,924 38	
Fidelity	32,661 15	38,875 70	
Surety	18,327 78	18,024 22	
Plate glass	73,620 97	4,085 64	
Steam boiler	76,487 84	3,164 98	
Burglary and theft	73,853 37	4,536 82	
Fly wheel	15,710 19	2,378 91	
Workmen's collective	7,589 73	323 69	
Totals	$1,210,355 30	$232,401 21	1,442,756 51
Bills receivable			7,250 00
Agents' balances and sundry ledger assets			99,576 85
Ledger assets as per balance			$10,451,838 07

Non-Ledger Assets.

Interest due and accrued on:		
Bonds	$48,069 97	
Other assets	621 20	
Rents due and accrued	318 97	
		49,009 94
Market value of bonds and stocks over book value		321,042 53
Gross assets		$10,821,890 54

Deduct Assets Not Admitted.

Bills receivable	$7,250 00	
Premiums in course of collection written prior to October 1, 1911	232,401 21	
Book value of ledger assets over market value	99,576 85	
Total		339,228 06
Total admitted assets		$10,482,662 48

LIABILITIES.

Losses and claims:	
Accident—Reported or in process of adjustment, $275,587.72; resisted, $173,300.00; net unpaid claims except liability claims, $448,887.72; estimated expense of investigation and adjustment of unpaid claims, $11,000.00	$459,887 72
Health—Reported or in process of adjustment, $156,837.17; resisted, $15,825.00; net unpaid claims except liability claims, $172,662.17; estimated expense of investigation and adjustment of unpaid claims, $5,000.00	177,662 17
Fidelity—Reported or in process of adjustment, $60,500.19; resisted, $32,959.39; deduct reinsurance, $7,000.00; net unpaid claims except liability claims, $86,459.58; estimated expense of investigation and adjustment of unpaid claims, $3,000.00	89,459 58
Surety—Reported or in process of adjustment, $17,938.89; net unpaid claims except liability claims, $17,938.89; estimated expense of investigation and adjustment of unpaid claims, $2,000.00	19,938 89
Plate glass—Reported or in process of adjustment, $17,757 08; resisted, $800.00; net unpaid claims except liability claims, $18,557.08; estimated expense of investigation and adjustment of unpaid claims, $1,500.00	20,057 08

Steam boiler—Reported or in process of adjustment. $12,359.00; resisted, $11,150.00; net unpaid claims except liability claims, $23,509.00; estimated expense of investigation and adjustment of unpaid claims, $1,000.00		$24,509 00
Burglary and theft—Reported or in process of adjustment, $89,391.00; resisted, $14,430.00; deduct reinsurance, $428.58; net unpaid claims except liability claims, $103,392.42; estimated expense of investigation and adjustment of unpaid claims, $3,500.00		106,892 42
Fly wheel—Reported or in process of adjustment, $835,00; estimated expense of investigation and adjustment of unpaid claims, $25.00		1,085 00
Workmen's collective—Reported or in process of adjustment, $790.40; estimated expense of investigation and adjustment of unpaid claims, $150.00		940 40
Net unpaid claims, except liability claims		$900,432 26
Special reserve for unpaid liability losses		1,312,435 95
Total unpaid claims and expenses of settlement		$2,212,868 21
Unearned premiums at 50 per cent on risks running one year or less	$3,550,402 66	
Unearned premiums at 75 per cent on New York excise risks	68,979 28	
Unearned premiums, pro rata on risks running more than one year	1,023,294 48	
Total unearned premiums		4,642,676 42
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident, $54,979.65; health, $103,516.25; liability, $99,526.24; surety, $3,016.75; fidelity, $5,692.84; plate glass, $21,725.55; steam boiler, $15,825.33; burglary and theft, $19,128.02; fly wheel, $3,047.78; workmen's collective, $1,468.61		327,927 02
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		5,994 67
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		121,426 46
Reinsurance		17,716 27
Reserve for contingencies	$175,000 00	
Fidelity insurance fund	7,518 85	
Unearned premiums returned under contract with Munich Reinsurance Company	42,103 98	
Suspense account	3,709 21	
All other liabilities	284 40	
		228,616 44
Total amount of all liabilities except capital		$7,557,225 49
Capital actually paid up in cash	$1,000,000 00	
Surplus over all liabilities	1,925,436 99	
Surplus as regards policyholders		2,925,436 99
Total liabilities		$10,482,662 48

EXHIBIT OF PREMIUMS.

	Accident.	Health.
In force December 31, 1910	$2,027,657 57	$1,198,197 12
Written or renewed during the year	2,823,036 91	1,744,801 56
Totals	$4,850,694 48	$2,942,998 68
Deduct expirations and cancellations	2,746,568 49	1,689,381 04
Balance	$2,104,125 99	$1,253,617 64
Deduct reinsured policies	3,659 06	777 43
Net in force December 31, 1911	$2,100,466 93	$1,252,840 21

	Liability.	Plate glass.
In force December 31, 1910	$2,303,634 35	$417,938 63
Written or renewed during the year	3,831,439 62	625,830 62
Totals	$6,135,073 97	$1,043,769 25
Deduct expirations and cancellations	3,194,038 90	569,486 17
Balance	$2,941,035 07	$474,238 08
Deduct reinsured policies	346 79	381 17
Net in force December 31, 1911	$2,940,688 28	$473,901 91
	Fly wheel.	Steam boiler.
In force December 31, 1910	$187,919 76	$786,583 13
Written or renewed during the year	116,869 34	589,017 17
Totals	$304,789 10	$1,375,600 30
Deduct expirations and cancellations	99,086 31	548,027 69
Balance	$205,702 79	$827,572 61
Deduct reinsured policies	----------	150 00
Net in force December 31, 1911	$205,702 79	$827,422 61
	Surety.	Fidelity.
In force December 31, 1910	$196,737 03	$290,519 96
Written or renewed during the year	270,162 76	383,054 01
Totals	$466,899 79	$673,573 97
Deduct expirations and cancellations	233,729 71	360,628 25
Balance	$233,170 08	$312,945 72
Deduct reinsured policies	20,621 01	4,826 96
Net in force December 31, 1911	$213,149 07	$308,118 76
Amount at risk December 31, 1911	$36,434,405 00	$79,273,453 00
	Burglary and theft.	Workmen's collective.
In force December 31, 1910	$747,943 92	$22,192 89
Written or renewed during the year	715,088 23	36,159 63
Totals	$1,463,032 15	$58,352 52
Deduct expirations and cancellations	730,997 68	35,207 54
Balance	$732,034 47	$23,144 98
Deduct reinsured policies	5,166 54	----------
Net in force December 31, 1911	$726,867 93	$23,144 98

Total dividends declared from organization: Cash, $1,903,750; stock, $750,000	$2,653,750 00

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Accident	$69,305 97	$25,188 74
Health	22,458 37	9,353 62
Liability	106,059 64	33,590 62
Fidelity	3,596 07	270 70
Surety	302 98	----------
Plate glass	20,781 79	5,583 48
Steam boiler	7,519 63	949 27
Burglary and theft	17,396 98	9,806 48
Fly wheel	960 88	----------
Workmen's collective	191 67	----------
Totals	$248,573 98	$84,742 31

FIDELITY AND DEPOSIT COMPANY.

Charles and Lexington streets, Baltimore, Maryland.

(Incorporated February, 1890. Commenced business in California June, 1890.)

EDWIN WARFIELD, President. HARRY NICODEMUS, Secretary and Treasurer.

Agent for service in California: JAMES W. MOYLES, San Francisco.

CAPITAL.

Capital stock paid up in cash		$2,000,000 00	
Amount of ledger assets December 31st of previous year			$6,948,024 35

INCOME.

Accident—Gross premiums written and renewed during the year, $149,864.58; deduct reinsurance, $6,684.29; return premiums on policies canceled, $1,825.02; premiums on policies not taken, $27,567.48: Total deductions, $36,076.79			$113,787 79
Health—Gross premiums written and renewed during the year, $70,077.96; deduct reinsurance, $2,558.77; return premiums on policies canceled, $1,360.36; premiums on policies not taken, $13,764.36: Total deductions, $17,683.48			52,394 48
Liability—Gross premiums written and renewed during the year, $1,314,733.07; deduct reinsurance, $673.60; return premiums on policies canceled, $35,991.95; premiums on policies not taken, $298,374.94: Total deductions, $335,040.49			979,692 58
Fidelity and surety—Gross premiums written and renewed during the year, $2,792,602.37; deduct reinsurance, $107,913.74; return premiums on policies canceled, $144,544.52; premiums on policies not taken, $133,697.09: Total deductions, $386,155.35			2,406,447 02
Plate glass—Gross premiums written and renewed during the year, $271,912.00; deduct return premiums on policies canceled, $3,198.54; premiums on policies not taken, $59,809.92: Total deductions, $63,008.46			208,903 54
Burglary and theft—Gross premiums written and renewed during the year, $82,842.37; deduct reinsurance, $11,814.38; return premiums on policies canceled, $2,556.88; premiums on policies not taken, $10,638.10: Total deductions, $25,009.36			57,833 01
Automobile property damage—Gross premiums written and renewed during the year, $127,653.78; deduct return premiums on policies canceled, $5,386.16; premiums on policies not taken, $31,414.04: Total deductions, $36,800.20			90,853 58
Workmen's collective—Gross premiums written and renewed during the year, $8,408.35; deduct return premiums on policies canceled, $31.30; premiums on policies not taken, $1,564.17: Total deductions, $1,595.47			6,812 88
Total net premiums			$3,916,724 88
Inspections			1,317 57
Bonds and dividends on stocks, $175,221.13; from other sources, $7,193.06		$182,414 19	
Rents		55,288 61	
Total interest and rents			239,702 80
New York excise current losses fund	$538 14		
New York excise reserve fund	840 53		
New York excise premiums undistributed	151 74		
Various notes, etc.	141 52		
		$1,671 93	
Returned premiums (allowed not claimed) December 31, 1911	$73,247 63		
Returned premiums (allowed not claimed) December 31, 1910	18,576 98		
		54,670 65	
Advance premiums, December 31, 1911	$138,848 01		
Advance premiums, December 31, 1910	25,082 01		
		113,766 00	

Amount brought forward			$4,157,745 25
Premiums due for reinsurance, December 31, 1911	$18,045 01		
Premiums due for reinsurance, December 31, 1910	13,265 43		
		$4,779 58	
Amount received for liquidation Philadelphia Casualty Company		275,000 00	
			449,888 16
Agents' balances previously charged off			129 35
Profit on sale or maturity of ledger assets			12,095 00
Increase in book value of ledger assets			128,320 00
Total income			$4,748,177 76
Sum			$11,696,202 11

DISBURSEMENTS.

Accident—Gross amount paid for losses, $25,098.73; deduct reinsurance, $660.88; salvage, $100.00: Total deductions, $760.88	$24,337 85
Health—Gross amount paid for losses, $13,759.94; deduct reinsurance, $551.75; salvage, $125.00: Total deductions, $676.75	13,083 19
Liability	106,827 13
Fidelity and surety—Gross amount paid for losses, $809,050.38; deduct reinsurance, $18,831.61; salvage, $256,991.81: Total deductions, $275,823.42	533,226 96
Plate glass—Gross amount paid for losses, $60,680.84; deduct reinsurance, $15.82; salvage, $674.79: Total deductions, $690.61	59,990 23
Burglary and theft—Gross amount paid for losses, $16,212.63; deduct reinsurance, $1,658.95; salvavge, $87.19: Total deductions, $1,746.14	14,466 49
Automobile property damage	23,607 77
Workmen's collective	1,180 59
Total net amount paid policyholders for losses	$776,720 21
Investigation and adjustment of claims	76,184 29
Collection expenses, salvage and recovery	14,460 32
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	896,240 06
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	331,608 46
Salaries, traveling and all other expenses of agents not paid by commissions	256,007 98
Medical examiners' fees and salaries	53 50
Inspections (other than medical and claim)	25,285 54
Rents	49,848 32
Repairs and expenses (other than taxes) on real estate	23,004 39
Taxes on real estate	19,849 86
State taxes on premiums	44,752 82
Insurance Department licenses and fees	8,734 59
All other licenses, fees and taxes	54,654 95
Legal expenses	54,553 63
Advertising	17,103 22
Printing and stationery	51,440 98
Postage, telegraph, telephone and express	43,570 73
Furniture and fixtures	22,752 82
Stockholders for interest or dividends	320,000 00
Other disbursements: Home office incidentals, $25,017.81; home office traveling expenses, $20,613.63; expenses, account liquidation Philadelphia Casualty Company, $190,535.44	236,166 88
Agents' balances charged off, $4,225.29; charged off as uncollectible, $4,873.06	9,098 35
Decrease in book value of ledger assets, $17,714.00; collateral loans per schedule "C," $1,300.00	19,014 00
Total disbursements	$3,351,105 90
Balance	$8,345,096 21

LEDGER ASSETS.

Book value of real estate		$2,129,946 28
Loans secured by pledge of bonds, stocks or other collaterals		104,600 00
Book value of bonds and stocks		4,114,025 00
Cash in office	$148 19	
Cash in hands of agents	31,500 00	
Deposits in trust companies and banks not on interest	208,141 30	
Deposits in trust companies and banks on interest	355,737 60	
		595,527 09

Gross premiums in course of collection on policies or renewals:

	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Accident	$42,574 75	$2,013 02	
Health	22,157 25	1,167 91	
Liability	232,254 24	20,172 06	
Fidelity and surety	429,212 65	232,405 60	
Plate glass	58,477 85	4,175 66	
Burglary and theft	16,615 60	714 13	
Automobile property damage	15,037 90	1,584 29	
Workmen's collective	3,433 94	---------	
Totals	$819,764 18	$262,232 67	1,081,996 85

New York excise current losses fund (held by joint committee), $12,703.35; New York excise reserve fund (held by joint committee), $30,617.88	43,321 39
Other ledger assets: Advance on contract, Amsterdam, N. Y., $114,404.21; advance on contract, Clyde, N. Y., $22,220.01; advance on contract, Baltimore, Md., $30,000.00; advance on contract, Baltimore, Md., $14,790.63; advance on contract, Baltimore, Md., $10,000.00; advance on contract, Baltimore, Md., $84,184.75	275,679 60
Ledger assets as per balance	$8,345,096 21

Deduct Assets Not Admitted.

Premiums in course of collection written prior to October 1, 1911	$262,232 67	
Special deposits	561,698 00	
Total		$23,930 67
Total admitted assets		$7,521,165 54

LIABILITIES.

Losses and Claims:

Accident—Adjusted, $267.14; reported or in process of adjustment, $17,265.46; net unpaid claims except liability claims	$17,532 60
Health—Adjusted, $458.74; reported or in process of adjustment, $2,942.78; net unpaid claims except liability claims	3,401 52
Surety—Adjusted, $4,526.02; reported or in process of adjustment, $338,448.38; resisted, $3,475.00; net unpaid claims, except liability claims	690,474 40
Plate glass—Reported or in process of adjustment	5,438 69
Burglary and theft—Reported or in process of adjustment	5,038 50
Automobile property damage—Adjusted, $738.98; reported or in process of adjustment, $7,306.20; resisted, $1,929.36; net unpaid claims except liability claims, $9,974.54; estimated expense of investigation and adjustment of unpaid claims, $913.34	10,887 88
Workmen's collective—Reported or in process of adjustment, $529.15; net unpaid claims except liability claims, $539.15; estimated expense of investigation and adjustment of unpaid claims, $27.78	566 93
Total	$733,340 52
Special reserve for unpaid liability losses	161,128 02
Total unpaid claims and expenses of settlement	$894,468 54

Amount brought forward		$894,468 54
Special reserve for liquidation expenses Philadelphia Casualty Company		119,464 56
Unearned premiums at 50 per cent on risks running one year or less	$1,660,568 67	
Unearned premiums, pro rata on risks running more than one year	312,520 61	
Total unearned premiums		1,973,089 28
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident, $11,794.17; health, $6,075.35; liability, $63,003.22; fidelity and surety, $91,443.77; plate glass, $16,457.53; burglary and theft, $4,883.99; automobile property damage, $3,746.27; workmen's collective, $1,028.18		198,432 48
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		10,000 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		75,000 00
Return premiums		73,247 63
Reinsurance		18,045 01
Advance premiums (100 per cent)		138,848 01
Total		$3,500,595 51
Less liabilities secured by special deposits: Unearned premiums, $196,056.78; unpaid losses, $174,909.25		370,966 03
Total amount of all liabilities except capital		$3,129,629 48
Capital actually paid up in cash	$2,000,000 00	
Surplus over all liabilities	2,391,536 06	
Surplus as regards policyholders		4,391,536 06
Total liabilities		$7,521,165 54

EXHIBIT OF PREMIUMS.

	Accident.	Health.
In force December 31, 1910	$58,445 35	$26,008 41
Written or renewed during the year	149,864 58	70,077 96
Totals	$208,309 93	$96,086 37
Deduct expirations and cancellations	98,560 39	46,238 44
Balance	$109,749 54	$49,847 93
Deduct reinsured policies	5,953 77	2,382 33
Net in force December 31, 1911	$103,795 77	$47,465 60
	Liability.	Plate glass.
In force December 31, 1910	----------	$95,259 07
Written or renewed during the year	1,314,733 07	271,912 00
Totals	$1,314,733 07	$367,171 07
Deduct expirations and cancellations	637,608 11	154,053 59
Balance	$677,124 96	$213,117 48
Deduct reinsured policies	673 60	----------
Net in force December 31, 1911	$676,451 36	$213,117 48
	Fidelity and surety.	Burglary and theft.
In force December 31, 1910	$2,642,057 03	$9,080 94
Written or renewed during the year	2,792,602 37	82,842 37
Totals	$5,434,659 40	$91,923 31
Deduct expirations and cancellations	2,734,617 12	21,637 54
Balance	$2,700,042 28	$70,285 77
Deduct reinsured policies	125,233 13	11,670 42
Net in force December 31, 1911*	$2,574,809 15	$58,615 35

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*Amount at risk December 31, 1911, $659,170,611.42.

	Automobile property damage.	Workmen's collective.
Written or renewed during the year	$127,653 78	$8,408 35
Deduct expirations and cancellations	44,497 72	3,959 00
Net in force December 31, 1911	$83,156 06	$4,449 35

Total dividends declared from organization: Cash	$3,904,888 00
Total losses incurred during the year (less reinsurance)	7,998,221 01

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Accident	$5,147 09	$483 67
Health	1,990 36	176 63
Liability	41,640 08	3,855 10
Fidelity and surety	94,614 19	9,028 95
Plate glass	16,118 50	1,453 43
Burglary and theft	5,382 84	2,026 25
Automobile property damage	2,650 56	113 01
Workmen's collective	1,700 00	2 50
Totals	$169,243 62	$17,139 54

UNITED STATES BRANCH OF THE FRANKFORT MARINE ACCIDENT AND PLATE GLASS INSURANCE COMPANY OF FRANKFORT-ON-THE-MAIN, GERMANY.

123 William street, New York City, New York.

(Incorporated March, 1865. Commenced business in California, 1896.)

C. H. Franklin, United States Manager and Attorney. J. M. Smith, Secretary.

Agent for service in California: D. Duncan, San Francisco.

CAPITAL.

Capital stock paid up in cash	$250,000 00	
Amount of ledger assets December 31st of previous year		$1,510,581 88

INCOME.

Accident and health—Gross premiums written and renewed during the year, $150,860.05; deduct reinsurance, $8,044.45; return premiums on policies canceled, $1,344.07; premiums on policies not taken, $24,506.58: Total deductions, $33,895.10	$116,964 95
Liability—Gross premiums written and renewed during the year, $1,207,617.34; deduct reinsurance, $757.24; return premiums on policies canceled, $82,259.94; premiums on policies not taken, $112,913.16: Total deductions, $195,930.34	1,011,687 00
Burglary and theft—Gross premiums written and renewed during the year, $48,869.16; deduct reinsurance, $7,283.71; return premiums on policies canceled, $2,812.41; premiums on policies not taken, $7,513.81: Total deductions, $17,609.93	31,259 23
Workmen's collective—Gross premiums written and renewed during the year, $73,551.73; return premiums on policies canceled, $2,058.94; premiums on policies not taken, $606: Total deductions, $2,664.94	70,886 79
Total net premiums	$1,230,079 97
Policy fees required or represented by applications	21,231 78
Bonds and dividends on stocks, $47,390.51; from other sources, $1,183.22	48,573 73
Remittance from home office	20,275 34
Profit on sale or maturity of ledger assets: Bonds as per schedule D	1 83
Total income	$1,320,880 65
Sum	$2,831,462 53

DISBURSEMENTS.

Accident and health—Gross amount paid for losses, $67,214.65; deduct reinsurance, $4,865.10	$62,349 55
Liability—Gross amount paid for losses	576,644 52
Burglary and theft—Gross amount paid for losses, $19,599.07; deduct reinsurance, $3,320.03; salvage, $35: Total deductions, $3,355.03	16,244 04
Workmen's collective—Gross amount paid for losses	25,465 35
Total net amount paid policyholders for losses	$680,703 46
Investigation and adjustment of claims	102,458 62
Policy fees retained by agents	21,231 78
Commissions or brokerage to agents (less amount received on return premiums and reinsurance)	314,792 88
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	50,079 47
Salaries, traveling and all other expenses of agents not paid by commissions	38,681 23
Inspections (other than medical and claim)	18,603 49
Rents	7,909 79
State taxes on premiums	18,021 29
Insurance Department licenses and fees	3,997 11
All other licenses, fees and taxes	1,479 29
Legal expenses	2,071 96
Advertising	6,587 98
Printing and stationery	13,763 47
Postage, telegraph, telephone and express	7,095 56
Furniture and fixtures	408 20
Other disbursements: Remittance to home office, $935.73; miscellaneous, $5,954.39	6,890 12
Decrease in book value of ledger assets: Bonds as per schedule D	820 56
Total disbursements	$1,295,610 21
Balance	$1,535,852 32

LEDGER ASSETS.

Book value of bonds and stocks		$1,271,767 39
Cash in office	$650 00	
Deposits in trust companies and banks not on interest	1,482 26	
Deposits in trust companies and banks on interest	29,693 52	
		31,825 78

Gross premiums in course of collection on policies or renewals:

	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Accident and health	$7,707 97	$493 72	
Liability	182,789 84	7,460 58	
Burglary and theft	4,778 67	61 72	
Workmen's collective	27,486 62		
Totals	$222,763 10	$8,016 02	230,779 12
Cash in hands of trustees			1,480 03
Ledger assets as per balance			$1,535,852 32

Non-Ledger Assets.

Interest due and accrued on bonds, $13,857.08; bank deposits, $86.78	13,943 86
Gross assets	$1,549,796 18

Deduct Assets Not Admitted.

Premiums in course of collection written prior to October 1, 1911	$8,016 02	
Bonds	51,212 39	
Total		59,228 41
Total admitted assets		$1,490,567 77

LIABILITIES.

Losses and claims:		
Accident and health—Adjusted, $190; reported or in process of adjustment, $12,440.71; resisted, $9,072.50; deduct reinsurance, $625; net unpaid claims except liability claims, $21,078.21; estimated expense of investigation and adjustment of unpaid claims, $1,109.38		$22,187 59
Burglary and theft—Reported or in process of adjustment, $2,232; resisted, $1,764; deduct reinsurance, $1,125; net unpaid claims except liability claims, $2,871; estimated expense of investigation and adjustment of unpaid claims, $319		3,190 00
Marine—Resisted, $3,000; net unpaid claims except liability claims		3,000 00
Workmen's collective—Reported or in process of adjustment, $16,297.78; net unpaid claims except liability claims, $16,297.78; estimated expense of investigation and adjustment of unpaid claims, $417.89		16,715 67
Net unpaid claims, except liability claims		$45,093 26
Special reserve for unpaid liability losses		432,971 00
Contingent reserve		31,536 29
Total unpaid claims and expenses of settlement		$509,600 55
Unearned premiums at 50 per cent on risks running one year or less	$411,917 98	
Unearned premiums, pro rata on risks running more than one year	25,617 27	
Total unearned premiums		437,535 25
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident and health, $2,771.66; liability, $48,022.72; burglary and theft, $1,527.97; workmen's collective, $5,273.78		57,596 13
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		1,500 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		11,800 00
Advance premiums (100 per cent)		2,239 43
Total amount of all liabilities except capital		$1,020,271 36
Capital actually paid up in cash	$250,000 00	
Surplus over all liabilities	220,296 41	
Surplus as regards policyholders		470,296 41
Total liabilities		$1,490,567 77

EXHIBIT OF PREMIUMS.

	Accident and health.	Liabilities.
In force December 31, 1910	$51,973 03	$682,967 99
Written or renewed during the year	150,860 05	1,207,617 34
Totals	$202,833 08	$1,890,585 33
Deduct expirations and cancellations	143,288 48	1,125,237 79
Balance	$59,544 60	$765,347 54
Deduct reinsured policies	8,058 49	757 47
Net in force December 31, 1911	$51,486 11	$764,590 07

	Burglary and theft.	Workmen's collective.
In force December 31, 1910	$33,066 72	$39,467 76
Written or renewed during the year	48,869 16	73,551 73
Totals	$81,935 88	$113,019 49
Deduct expirations and cancellations	36,105 54	82,717 69
Balance	$45,830 34	$30,301 80
Deduct reinsured policies	8,323 25	----------
Net in force December 31, 1911	$37,507 09	$30,301 80

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Accident and health	$9,178 58	$4,089 30
Liability	74,380 34	47,753 80
Burglary and theft	2,296 62	4,179 48
Workmen's collective	25,953 45	12,440 75
Totals	$11,808 99	$68,463 33

GERMAN COMMERCIAL ACCIDENT INSURANCE COMPANY.

No. 1011 Chestnut street, Philadelphia, Pennsylvania.

(Incorporated April 19, 1907. Commenced business in California, 1911.)

ALBERT LADNER, JR., President. HORACE G. MEININGER, Secretary.

Agent for service in California: HARRY W. OVERMAN, San Francisco.

CAPITAL.

Capital stock paid up in cash	$100,000 00	
Amount of ledger assets December 31st of previous year		$179,131 30

INCOME.

Accident—Gross premiums written and renewed during the year, $79,116.22; deduct reinsurance, $50; return premiums on policies canceled, $976.49		$78,089 73
Health—Gross premiums written and renewed during the year, $68,562.16; deduct return premiums on policies canceled, $604.61		67,957 55
Total net premiums		$146,047 28
Policy fees required or represented by applications		135 55
Interest on bank deposits	$219 36	
Bonds and dividends on stocks, less accrued interest, $157.60	5,429 90	
Rents	352 50	
Total interest and rents		5,991 76
From all other sources: Sale of industrial department, $2,000; remitted by agents for licenses, $1,684.01; miscellaneous items, $41.19; supplies, $651.88		4,377 08
Profit on sale or maturity of ledger assets: Bonds, $22.50; stocks, $35.62		58 12
Total income		$156,609 79
Sum		$335,741 09

DISBURSEMENTS.

Accident—Gross amount paid for losses, $27,465.64; deduct salvage, $175.00	$27,290 64
Health—Gross amount paid for losses, $23,947.57; deduct salvage, $74.66	238,872.91
Total net amount paid policyholders for losses	$51,163 55
Investigation and adjustment of claims	2,076 74
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	57,262 99
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	21,334 08
Salaries, traveling and all other expenses of agents not paid by commissions	2,266 95
Medical examiners' fees and salaries	1,639 87

Rents	$3,906 03
State taxes on premiums	1,541 49
Insurance Department licenses and fees	3,362 21
Legal expenses	940 71
Advertising	2,016 13
Printing and stationery	5,368 48
Postage, telegraph, telephone and express	4,056 98
Stockholders for interest or dividends	2,500 00
Other disbursements: Protest fees, $135.74; miscellaneous tax on capital stock and examiners' fees, $5,288.76	5,424 50
Total disbursements	$164,859 71
Balance	$170,881 38

LEDGER ASSETS.

Book value of bonds and stocks	$143,635 33
Cash in office	1,726 20
Deposits in trust companies and banks on interest	5,660 76
Total	$151,022 29
Gross premiums in course of collection on policies or renewals:	Issued on or after October 1, 1911.
Accident	$6,708 76
Health	6,440 77
Total	$13,149 53
Other ledger assets: Balance due by American Assurance Company on sale industrial department, $1,000; furniture and fixtures, $3,057.68; printed matter and stationery, $2,651.88	6,709 56
Ledger assets as per balance	$170,881 38

Non-Ledger Assets.

Interest due and accrued on bonds, $503.11; loans, $50.00	553 11
Market value of bonds and stocks over book value	1,726 67
Gross assets	$173,161 16

Deduct Assets Not Admitted.

Furniture and fixtures	$3,057 68	
Supplies, printed matter and stationery	2,651 88	
Total		5,709 56
Total admitted assets		$167,451 60

LIABILITIES.

Losses and claims:	
Accident—Reported or in process of adjustment, $4,859.08; resisted, $7,166.60; net unpaid claims, except liability claims, $12,025.68; estimated expense of investigation and adjustment of unpaid claims, $200.00	$12,225 68
Health—Reported or in process of adjustment, $4,204.57; resisted, $281.28; net unpaid claims, except liability claims, $4,485.85; estimated expense of investigation and adjustment of unpaid claims, $200.00	4,685 85
Net unpaid claims, except liability claims	$16,911 53
Special reserve for accrued losses on credit policies in force December 31, 1911, being 50 per cent of $117,665.36 earned premiums on said policies	58,832 68
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident, $388.29; health, $277.44	665 73
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued	2,116 95
Advance premiums (100 per cent)	507 00
Commissions	91 78
Total	$79,125 67

Amount brought forward		$79,125 67
Capital actually paid up in cash	$100,000 00	
Impairment	11,674 07	
Surplus as regards policyholders		88,325 93
Total liabilities		$167,451 60

EXHIBIT OF PREMIUMS.

	Accident.	Health.
In force December 31, 1910	$59,618 79	$7,048 54
Written or renewed during the year	54,831 81	50,435 81
Totals	$114,450 60	$57,484 35
Deduct expirations and cancellations	29,825 24	24,243 74
Balance	$84,625 36	$33,240 61
Deduct reinsured policies	200 61	
Net in force December 31, 1911	$84,424 75	$33,240 61

Total dividends declared from organization: Cash	$2,500 00
Total losses incurred during the year (less reinsurance)	51,163 55

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Accident	$909 38	$202 78
Health	1,196 80	
Totals	$2,106 18	$202 78

GREAT EASTERN CASUALTY COMPANY.

No. 55 John street, New York City, New York.

(Incorporated December, 1892. Commenced business in California, 1910.)

LOUIS H. FIBEL, President. THOMAS H. DARLING, Secretary.

Agent for service in California: JAMES C. HAYBURN, San Francisco.

CAPITAL.

Capital stock paid up in cash	$250,000 00	
Amount of ledger assets December 31st of previous year		$733,276 41

INCOME.

Accident—Gross premiums written and renewed during the year, $463,761.88; deduct reinsurance, $17,197.01; return premiums on policies canceled, $5,754.28; premiums on policies not taken, $91,029.09: Total deductions, $113,980.38	$349,781 50
Health—Gross premiums written and renewed during the year, $212,907.66; deduct reinsurance, $100.00; return premiums on policies canceled, $2,340.07; premiums on policies not taken, $47,206.53: Total deductions, $49,646.60	163,261 06
Plate glass—Gross premiums written and renewed during the year, $64,341.36; deduct reinsurance, $630.96; return premiums on policies canceled, $1,393.02; premiums on policies not taken, $19,139.38: Total deductions, $21,163.36	43,178 00
Burglary and theft—Gross premiums written and renewed during the year, $109,089.29; deduct reinsurance, $7,829.85; return premiums on policies canceled, $2,886.67; premiums on policies not taken, $24,073.02: Total deductions, $34,789.54	74,299 75
Workmen's collective	668 97
Total net premiums	$631,189 28

Policy fees required or represented by applications	$27,172 16
Interest on mortgage loans	6,263 20
Bonds and dividends on stocks	17,936 11
Banks	787 26
Total income	$683,348 01
Sum	$1,416,624 42

DISBURSEMENTS.

Accident—Gross amount paid for losses, $106,433.24; deduct reinsurance, $3,901.79	$102,531 45
Health—Gross amount paid for losses	58,165 05
Plate glass—Gross amount paid for losses, $26,589.52; deduct reinsurance, $29.45; salvage, $5,172.05: Total deductions, $5,201.50	21,388 02
Burglary and theft—Gross amount paid for losses, $21,355.19; deduct reinsurance, $473.26	20,881 93
Workmen's collective	65 62
Total net amount paid policyholders for losses	$203,032 07
Investigation and adjustment of claims	3,870 79
Policy fees retained by agents	27,172 16
Commissions or brokerage to agents (less amount received on return premiums and reinsurance)	218,010 08
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	68,616 68
Salaries, traveling and all other expenses of agents not paid by commissions	8,795 86
Medical examiners' fees and salaries	1,481 70
Inspections (other than medical and claim)	166 96
Rents	7,310 00
State taxes on premiums	8,926 24
Insurance Department licenses and fees	3,507 07
Legal expenses	3,559 65
Advertising	2,958 59
Printing and stationery	14,020 10
Postage, telegraph, telephone and express	6,980 36
Furniture and fixtures	4,325 23
Stockholders for interest or dividends	20,000 00
Other disbursements: General expense, $4,725.11; journal subscription, $247.15; traveling expense, $6,214.60	11,186 86
Agents' balances charged off	1,116 22
Total disbursements	$615,036 62
Balance	$801,587 80

LEDGER ASSETS.

Mortgage loans on real estate, first liens			$169,000 00
Book value of bonds and stocks			476,548 75
Cash in office			8,479 63
Deposits in trust companies and banks on interest			46,751 68
Gross premiums in course of collection on policies or renewals:			
	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Accident	$42,184 19	$2,835 62	
Health	29,322 72	1,829 78	
Plate glass	7,102 91	798 37	
Burglary and theft	14,980 42	1,753 73	
Totals	$93,590 24	$7,217 50	100,807 74
Ledger assets as per balance			$801,587 80

Amount brought forward		$801,587 80

Non-Ledger Assets.

Interest due and accrued on:		
Mortgages	$2,293 87	
Bonds	3,818 75	
Bank deposits	83 21	
		6,195 83
Other non-ledger assets		2,046 25
Gross assets		$809,829 88

Deduct Assets Not Admitted.

Premiums in course of collection written prior to October 1, 1911	$7,217 50	
Book value of ledger assets over market value: Bonds	17,870 00	
		25,087 50
Total admitted assets		$784,742 38

LIABILITIES.

Losses and claims:		
Accident—Reported or in process of adjustment, $15,364.55; resisted, $8,848.00; deduct reinsurance, $292.84; net unpaid claims except liability claims, $23,917.71; estimated expense of investigation and adjustment of unpaid claims, $350.00		$24,269 71
Health—Reported or in process of adjustment, $10,772.53; resisted, $330.00; net unpaid claims except liability claims		11,102 53
Plate glass—Reported or in process of adjustment, $1,015.08; deduct reinsurance, $11.67; net unpaid claims except liability claims		1,003 41
Burglary and theft—Reported or in process of adjustment, $4,936.00; resisted, $4,516.00; net unpaid claims except liability claims, $9,452.00; estimated expense of investigation and adjustment of unpaid claims, $200.00		9,652 00
Net unpaid claims, except liability claims		$46,027 65
Unearned premiums at 50 per cent on risks running one year or less	$219,150 28	
Unearned premiums, pro rata on risks running more than one year	13,936 78	
Total unearned premiums		233,087 06
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident, $15,045.69; health, $10,458.44; plate glass, $2,367.63; burglary and theft, $5,093.34		37,754 38
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		1,300 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		10,000 00
Reinsurance		4,203 27
Advance premiums (100 per cent)		11,516 48
Total amount of all liabilities except capital		$343,888 84
Capital actually paid up in cash	$250,000 00	
Surplus over all liabilities	190,853 54	
Surplus as regards policyholders		440,853 54
Total liabilities		$784,742 38

EXHIBIT OF PREMIUMS.

	Accident.	Health.
In force December 31, 1910	$219,655 53	$92,358 34
Written or renewed during the year	463,761 88	212,907 66
Totals	$683,417 41	$305,266 00
Deduct expirations and cancellations	418,399 34	213,814 22
Balance	$265,018 07	$91,451 78
Deduct reinsured policies	15,921 61	130 00
Net in force December 31, 1911	$249,096 46	$91,321 78

	Plate glass.	Burglary and theft.
In force December 31, 1910	$24,020 51	$56,741 91
Written or renewed during the year	64,341 36	109,089 29
Totals	$88,361 87	$165,831 20
Deduct expirations and cancellations	45,198 70	82,967 66
Balance	$43,163 17	$82,863 54
Deduct reinsured policies	959 13	7,910 12
Net in force December 31, 1911	$42,204 04	$74,953 42

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Accident	$1,830 61	$525 15
Health	1,198 74	133 16
Plate glass	1,839 32	399 64
Burglary and theft	91 53	
Totals	$4,960 20	$1,057 95

HARTFORD STEAM BOILER INSPECTION AND INSURANCE COMPANY.

No. 56 Prospect street, Hartford, Connecticut.

(Incorporated June, 1866. Commenced business in California October, 1866.)

LYMAN B. BRAINERD, President. CHAS. S. BLAKE, Secretary.

Agent for service in California: H. R. MANN & Co., San Francisco.

CAPITAL.

Capital stock paid up in cash	$1.000,000 00	
Amount of ledger assets December 31st of previous year		$4.904.972 20

INCOME.

Steam boiler—Gross premiums written and renewed during the year, $1,513,716.71; deduct reinsurance, $886.78; return premiums on policies canceled, $130,543.17; premiums on policies not taken, $65,084.75: Total deductions, $196,514.70		$1.317.202 01
Fly wheel—Gross premiums written and renewed during the year, $51.817.72; deduct reinsurance, $80.00; return premiums on policies canceled, $3.208.66; premiums on policies not taken, $3,047.89: Total deductions, $6.336.55		45.481 17
Total net premiums		$1.362.683 18
Inspections		20.514 52
Interest on mortgage loans	$59,687 80	
Bonds and dividends on stocks, $171,347.44; from other sources, $1,829.78	173.177 22	
Rents	8.246 26	
Total interest and rents		241.111 28
Profit on sale or maturity of ledger assets		1.100 00
Total income		$1,625,408 98
Sum		$6.530.381 18

DISBURSEMENTS.

Steam boiler—Gross amount paid for losses	$173,109 21
Fly wheel—Gross amount paid for losses	2,424 97
Net amount paid policyholders for losses	$175,534 18
Investigation and adjustment of claims	1,642 73
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	178,441 68
Salaries, fees and all other compensation of officers, directors, trustees and home office employees	65,348 96
Salaries, traveling and all other expenses of agents not paid by commissions	290,703 59
Inspections (other than medical and claim)	515,374 95
Rents	5,000 00
Repairs and expenses (other than taxes) on real estate	7,134 57
Taxes on real estate	1,850 00
State taxes on premiums	22,300 46
Insurance Department licenses and fees	7,065 18
All other licenses, fees and taxes	24,338 85
Legal expenses	907 52
Advertising	1,431 84
Printing and stationery	16,766 14
Postage, telegraph, telephone and express	20,507 67
Furniture and fixtures	3,183 40
Stockholders for interest or dividends	120,000 00
Other disbursements: Office expenses, $596.51; exchange, $583.24	1,179 75
Loss on sale or maturity of ledger assets	2,875 78
Total disbursements	$1,461,587 25
Balance	$5,068,793 93

LEDGER ASSETS.

Book value of real estate			$91,100 00
Mortgage loans on real estate			1,166,360 00
Book value of bonds and stocks			3,215,719 94
Cash in office			1,782 96
Deposits in trust companies and banks on interest			159,113 68
Gross premiums in course of collections on policies or renewals:			
	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Steam boiler	$256,009 19	$125,090 26	
Fly wheel	7,444 14	2,377 15	
Totals	$263,453 33	$127,467 41	390,920 74
Cash in course of transmission			43,796 61

Non-Ledger Assets.

Interest due and accrued on:		
Mortgages	$32,411 22	
Bonds	38,640 80	
		71,052 02
Market value of bonds and stocks over book value		33,496 06
Gross assets		$5,173,342 01

Deduct Assets Not Admitted.

Premiums in course of collection written prior to October 1, 1911	127,467 41
Total admitted assets	$5,045,874 60

LIABILITIES.

Losses and claims:	
Steam boiler—Reported or in process of adjustment	$102,072 53
Fly wheel—Reported or in process of adjustment	400 00
Net unpaid claims, except liability claims	$102,472 53

Unearned premiums at 50 per cent on risks running one year or less	$56,360 92	
Unearned premiums, pro rata on risks running more than one year	1,985,857 29	
Total unearned premiums		$2,042,218 21
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911, viz.: Steam boiler. $51,201.84; fly wheel, $1,488.83		52,690 67
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		25,000 00
Other liabilities, special and contingent		22,191 65
Total amount of all liabilities except capital		$2,244,573 06
Capital actually paid up in cash	$1,000,000 00	
Surplus over all liabilities	1,801,301 54	
Surplus as regards policyholders		2,801,301 54
Total liabilities		$5,045,874 60

EXHIBIT OF PREMIUMS.

	Steam boiler.	Fly wheel.
In force December 31, 1910	$3,778,411 73	$38,671 92
Written or renewed during the year	1,513,716 71	51,817 72
Totals	$5,292,128 44	$90,489 64
Deduct expirations and cancellations	1,459,056 31	8,355 57
Balance	$3,833,072 13	$82,134 07
Deduct reinsured policies	966 78	80 00
Net in force December 31, 1911	$3,832,072 35	$82,054 07

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Steam boiler	$38,099 03	$250 00
Fly wheel	159 90	------------
Totals	$38,258 93	$250 00

ILLINOIS SURETY COMPANY.

No. 134 South La Salle street, Chicago, Illinois.

(Incorporated April 13, 1905. Commenced business in California Dec. 13, 1910.)

A. J. Hopkins, President. Chas. E. Schick, Secretary.

Agent for service in California: C. T. Hughes, San Francisco.

CAPITAL.

Capital stock paid up in cash	$250,000 00	
Amount of ledger assets December 31st of previous year		$611,549 57

INCOME.

Fidelity—Gross premiums written and renewed during the year, $127,009.07; deduct reinsurance, $6,214.27; return premiums on policies canceled, $11,173.15; premiums on policies not taken, $18,766.80: Total deductions, $36,154.22	$90,854 85
Surety—Gross premiums written and renewed during the year, $315,096.61; deduct reinsurance, $12,196.59; return premiums on policies canceled, $16,663.26; premiums on policies not taken, $23,549.78: Total deductions, $52,409.63	262,686 98
Total net premiums	$353,541 83

Amount brought forward	$353,541 83
Bonds and dividends on stocks, $10,370.00; from other sources, $2,784.67	13,154 67
Brokerage	6,929 17
Increase in book value of ledger assets	96 48
Total income	$373,722 15
Sum	$985,271 72

DISBURSEMENTS.

Fidelity—Gross amount paid for losses, $30,856.99; deduct salvage, $17,680.24	$13,176 75
Surety—Gross amount paid for losses, $100,913.27; deduct reinsurance, $6,817.44; salvage, $9,388.50: Total deductions, $16,205.94	84,707 33
Total net amount paid policyholders for losses	$97,884 08
Investigation and adjustment of claims	1,472 43
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	66,925 41
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	39,069 35
Rents	4,812 50
State taxes on premiums	3,631 88
Insurance Department licenses and fees	2,951 91
All other licenses, fees and taxes	1,159 96
Legal expenses	18,008 13
Advertising	2,933 94
Printing and stationery	8,421 06
Postage, telegraph, telephone and express	6,271 00
Furniture and fixtures	1,057 52
Stockholders for interest or dividends	15,000 00
Other disbursements: Agency expense, $2,146.11; development expense, $4,284.81; exchange, $104.13; general expense, $6,720.91; premium bond expense, $706.34; excise commission and expense, $15,651.04; advance for expense, $600.00; traveling expense, $250.00; interest returned on collateral deposits, $46.10	30,509 44
Decrease in book value of ledger assets	220 72
Total disbursements	$300,379 33
Balance	$684,942 39

LEDGER ASSETS.

	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Book value of bonds and stocks			$432,249 41
Cash in office			64 25
Deposits in trust companies and banks on interest			52,772 44
Gross premiums in course of collection on policies or renewals:			
Fidelity	$17,497 65	$11,791 58	
Surety	67,454 60	38,079 35	
Totals	$84,952 25	$49,870 93	134,823 18
Bills receivable		$3,082 31	
Other ledger assets: Advances on contracts, $23,672.25; suspense, $462.52; due from excise committee, $36,704.71; personal ledger accounts, $1,111.32		61,950 80	
			65,033 11
Ledger assets as per balance			$684,942 39

Non-Ledger Assets.

Interest due and accrued on bonds	6,467 10
Gross assets	$691,409 49

Deduct Assets Not Admitted.

Bills receivable	$3,082 31	
Suspense, $462.52; personal ledger accounts, $1,111.43	1,573 84	
Premiums in course of collection written prior to October 1, 1911	49,870 93	
Advances on contracts	23,672 25	
Book value of ledger assets over market value	8,379 41	
Special deposits to secure liabilities in Virginia and Canal zone, market value	22,120 00	
Total		$108,698 74
Total admitted assets		$582,710 75

LIABILITIES.

Losses and claims:		
Fidelity—Reported or in process of adjustment, $2,338.06; resisted, $6,075; net unpaid claims except liability claims, $8,413.06; estimated expense of investigation and adjustment of unpaid claims, $934.79		$9,347 85
Surety—Reported or in process of adjustment, $15,936.79; resisted, $23,890.50; net unpaid claims except liability claims, $39,827.29; estimated expense of investigation and adjustment of unpaid claims, $4,425.25		44,252 54
Total		$53,600 39
New York excise 75 per cent on risks running one year or less	$39,531 74	
Unearned premiums at 50 per cent on risks running one year or less	128,458 91	
Unearned premiums, pro rata on risks running more than one year	7,456 99	
Total unearned premiums		175,447 64
Fidelity, $5,249.30; surety, $20,236.38		25,485 68
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		9,462 23
Reinsurance		9,120 92
Total		$264,600 86
Less liabilities secured by special deposits, unearned premiums		2,823 17
Total amount of all liabilities except capital		$261,777 69
Capital actually paid up in cash	$250,000 00	
Surplus over all liabilities	70,933 06	
Surplus as regards policyholders		320,933 06
Total liabilities		$582,710 75

EXHIBIT OF PREMIUMS.

	Surety.	Fidelity.
In force December 31, 1910	$196,760 51	$102,822 78
Written or renewed during the year	315,096 61	127,009 07
Totals	$511,857 12	$229,831 85
Deduct expirations and cancellations	284,326 11	114,611 08
Balance	$227,531 01	$115,220 77
Deduct reinsured policies	15,610 09	8,694 32
Net in force December 31, 1911	$211,920 92	$106,526 45
Amount at risk December 31, 1911	$29,523,547 95	$35,065,751 98

Total dividends declared from organization: Cash	$70,000 00
Total losses incurred during the year (less reinsurance) net	97,884 08

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

Gross premiums less return premiums on risks written or renewed during the year:	
Fidelity	$1,646 62
Surety	4,395 61
Total	$6,042 23

INDIANA AND OHIO LIVE STOCK INSURANCE COMPANY.

No. 132½ E. Main street, Crawfordsville, Indiana.

(Incorporated, 1893. Commenced business in California October, 1907.)

JOHN R. BENNELL, President. CHAS. L. GOODBAR, Secretary.

Agent for service in California: SAMUEL T. CURSON, Los Angeles.

CAPITAL.

Capital stock paid up in cash	$200,000 00	
Amount of ledger assets December 31st of previous year		$414,977 38

INCOME.

Live stock—Gross premiums written and renewed during the year, $354,361.10: deduct return premiums on policies canceled, $21,739.69; premiums on policies not taken, $23,944.17: Total deductions, $45,683.86		$308,677 24
Interest on mortgage loans	$5,086 92	
Bonds and dividends on stocks, $11,607.73; from other sources, $251.15	11,858 88	
Total interest		16,945 80
Transfer fees		7 25
Agents' balances previously charged off		238 23
Profit on sale or maturity of ledger assets		512 80
Total income		$326,381 32
Sum		$741,358 70

DISBURSEMENTS.

Live stock—Gross amount paid for losses, $185,743.58; deduct salvage, $6,515	$179,228 58
Investigation and adjustment of claims	647 19
Commissions or brokerage to agents (less amount received on return premiums and reinsurance)	83,308 90
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	18,999 44
Salaries, traveling and all other expenses of agents not paid by commissions	4,188 14
Medical examiners' fees and salaries	210 10
Inspections (other than medical and claim)	295 00
Rents	583 00
State taxes on premiums	5,043 42
Insurance Department licenses and fees	6,363 71
All other licenses, fees and taxes	3,003 00
Legal expenses	2,519 61
Advertising	5,628 72
Printing and stationery	3,092 12
Postage, telegraph, telephone and express	3,993 58
Furniture and fixtures	443 54
Stockholders for interest or dividends	12,000 00
Miscellaneous expense	1,448 39

Agents' balances charged off	$9,149 09
Decrease in book value of ledger assets	245 40
Total disbursements	$340,391 33
Balance	$400,967 37

LEDGER ASSETS.

Book value of real estate	$2,942 90
Mortgage loans on real estate, first liens	124,100 00
Book value of bonds and stocks	231,096 65
Cash in office	848 56
Deposits in trust companies and banks not on interest	10,175 01
Gross premiums in course of collection on policies or renewals:	
Live stock—Issued on or after October 1, 1911, $25,181.73; issued prior to October 1, 1911, $3,427.53	28,609 26
Bills receivable	3,194 99
Ledger assets as per balance	$400,967 37

Non-Ledger Assets.

Interest due and accrued on:		
Mortgages	$2,137 17	
Bonds	1,532 74	
		3,669 91
Gross assets		$404,637 28

Deduct Assets Not Admitted.

Premiums in course of collection written prior to October 1, 1911	$3,427 53	
Book value of ledger assets over market value	2,360 50	
		5,788 03
Total admitted assets		$398,849 25

LIABILITIES.

Losses and claims:		
Live stock—Reported or in process of adjustment, $17,357.50; resisted, $6,673.50		$24,031 00
Unearned premiums at 50 per cent on risks running one year or less		148,289 44
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Live stock		486 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		6,000 00
Total amount of all liabilities, except capital		$178,806 44
Capital actually paid up in cash	$200,000 00	
Surplus over all liabilities	20,042 81	
Surplus as regards policyholders		220,042 81
Total liabilities		$398,849 25

EXHIBIT OF PREMIUMS.

	Live stock.
In force December 31, 1910	$370,726 74
Written or renewed during the year	354,361 10
Totals	$725,087 84
Deduct expirations and cancellations	428,508 96
Net in force December 31, 1911	$296,578 88

Total dividends declared from organization: Cash	$168,500 00
Total losses incurred during the year (less reinsurance)	180,813 83

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

Gross premiums less return premiums on risks written or renewed during the year: Live stock	$14,258 19
Gross losses paid	9,915 00

INTER-OCEAN LIFE AND CASUALTY COMPANY.

No. 711 Lemcke Building, Indianapolis, Indiana.

(Incorporated February 2, 1907. Commenced business in California August 28, 1911.)

W. A. Northcott, President. W. A. Orr, Secretary.

Agent for service in California: O. F. Scherer, Los Angeles.

CAPITAL.

Capital stock paid up in cash, December 31, 1910	$100,000 00	
Amount of ledger assets December 31st of previous year		$172,958 06
Increase of paid up capital during the year		100,000 00
Extended at		$272,958 06

INCOME.

Accident and health—Gross premiums written and renewed during the year, $262,412.38; deduct return premiums on policies canceled, $1,397.66	$261,014 72
Policy fees required or represented by applications	88 61
Interest on mortgage loans	10,218 95
Bonds and dividends on stocks	84 44
Total income	$271,406 72
Sum	$544,364 78

DISBURSEMENTS.

Accident and health—Gross amount paid for losses	$101,652 26
Investigation and adjustment of claims	382 48
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	104,949 25
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	26,616 85
Salaries, traveling and all other expenses of agents not paid by commissions	3,183 55
Rents	1,740 00
State taxes on premiums	4,796 09
Insurance Department licenses and fees	2,739 97
All other licenses, fees and taxes	677 58
Legal expenses	270 40
Advertising	2,189 31
Printing and stationery	8,022 98
Postage, telegraph, telephone and express	4,719 78
Furniture and fixtures	418 25
Stockholders for interest or dividend, cash, $10,000.00; stock, $35,000.00	45,000 00
Paid interest on mortgages purchased	315 92
Total disbursements	$307,674 67
Balance	$236,690 11

LEDGER ASSETS.

Mortgage loans on real estate, first liens	$230,400 00
Cash in office	1,934 54
Deposits in trust companies and banks not on interest	659 74
Other ledger assets: Furniture and fixtures, $2,921.05; agents' loans, $774.78	3,695 83
Ledger assets as per balance	$236,690 11

Amount brought forward		$236,690 00

Non-Ledger Assets.

Interest due and accrued on mortgages		4,145 65
Gross assets		$240,835 76

Deduct Assets Not Admitted.

Furniture and fixtures, $2,921.05; loans on personal security, $774.78		3,695 83
Total admitted assets		$237,139 93

LIABILITIES.

Losses and claims:		
Accident and health—Reported or in process of adjustment		$8,325 00
Unearned premiums at 50 per cent on risks running one year or less	$9,221 85	
Unearned premiums, pro rata on risks running more than one year	149 55	
Total unearned premiums		9,371 41
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		5,408 32
Advance premiums: (100 per cent) Received in December, 1911, for January, 1912; monthly premiums on policies issued between December 16, 1911, and December 31, 1911		2,153 95
Total amount of all liabilities except capital		$25,258 67
Capital actually paid up in cash	$200,000 00	
Surplus over all liabilities	11,881 26	
Surplus as regards policyholders		211,881 26
Total liabilities		$237,139 93

EXHIBIT OF PREMIUMS.

	Accident.
In force December 31, 1910	$37,414 35
Written or renewed during the year	262,412 38
Totals	$299,826 73
Deduct expirations and cancellations	281,233 48
Net in force December 31, 1911	$18,593 25

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

Gross premiums less return premiums on risks written or renewed during the year: Accident and health, $794.60; gross losses paid	$160 56

LLOYDS PLATE GLASS INSURANCE COMPANY.

No. 61 William street, New York City, New York.

(Incorporated August, 1882. Commenced business in California, 1887.)

William T. Woods, President. Charles E. W. Chambers, Secretary.

Agent for service in California: Christensen & Goodwin, San Francisco.

CAPITAL.

Capital stock paid up in cash	$250,000 00	
Amount of ledger assets December 31st of previous year		$979,328 18

INCOME.

Plate glass—Gross premiums written and renewed during the year, $761,663.01; deduct rebates, $813.93; return premiums on policies canceled, $50,167.43; return premiums on policies not taken, $44,838.22: Total deductions, $95,819.58		$665,843 43
Interest on mortgage loans	$675 00	
Bonds and dividends on stocks, $24,349.66; from other sources, $102.93	24,452 59	
Rents	19,590 04	
Total interest and rents		44,717 63
Borrowed money		65,000 00
Agents' balances previously charged off		15 79
Profit on sale or maturity of ledger assets		15,210 30
Total income		$790,787 15
Sum		$1,770,115 33

DISBURSEMENTS.

Plate glass—Gross amount paid for losses, $255,117.04; deduct salvage, $9,149.07	$245,967 97
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	303,630 28
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	61,732 89
Salaries, traveling and all other expenses of agents not paid by commissions	1,337 11
Rents	11,039 92
Repairs and expenses (other than taxes on real estate	6,444 10
Taxes on real estate	6,717 66
State taxes on premiums	6,363 41
Insurance Department licenses and fees	8,503 47
All other licenses, fees and taxes	1,542 19
Legal expenses	1,624 83
Advertising	3,357 84
Printing and stationery	4,800 87
Postage, telegraph, telephone and express	6,994 90
Furniture and fixtures	737 95
Stockholders for interest or dividends	50,000 00
Other disbursements: Borrowed money, $65,000; interest thereon, $1,612.98; sundries, $6,988.81	73,601 79
Agents' balances charged off	13,644 38
Loss on sale or maturity of ledger assets	1,860 26
Decrease in book value of ledger assets	2,771 87
Total disbursements	$812,673 69
Balance	$957,441 64

LEDGER ASSETS.

Book value of real estate	$245,763 18
Mortgage loans on real estate, first liens	15,000 00
Book value of bonds and stocks	559,400 67
Cash in office	4,931 49
Deposits in trust companies and banks not on interest	29,528 62
Gross premiums in course of collection on policies or renewals:	
Plate glass—Issued on or after October 1, 1911, $85,856.17; issued prior to October 1, 1911, $16,961.51	102,817 68
Ledger assets as per balance	$957,441 64

Non-Ledger Assets.

Interest due and accrued on:		
Mortgages	$337 50	
Bonds	2,824 05	
Other assets	32 17	
Rents due and accrued	300 00	
		$3,493 72
Market value of real estate over book value		19,236 82
Other non-ledger assets: Salvage glass on hand, $6,726.95; *sundry accounts, $145		6,871 95
Gross assets		$987,044 13

Deduct Assets Not Admitted.

Furniture and fixtures	$6,726 95	
Supplies, printed matter and stationery	145 00	
Premiums in course of collection written prior to October 1, 1911	16,961 51	
Book value of ledger assets over market value	52,606 67	
Special deposits to secure liabilities in Canada and Virginia	126,038 00	
		202,478 13
Total admitted assets		$784,566 00

LIABILITIES.

Losses and claims: Plate glass—Adjusted, $17,732.74; reported or in process of adjustment, $15,397.65; net unpaid claims except liability claims		$33,130 39
Unearned premiums at 50 per cent on risks running one year or less	$259,006 93	
Unearned premiums, pro rata on risks running more than one year	91,124 28	
Total unearned premiums		350,131 21
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Plate glass		28,618 72
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		14 32
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		8,000 00
Return premiums		281 43
Total		$420,176 07
Less liabilities secured by special deposits: Unearned premiums		98,067 68
Total amount of all liabilities, except capital		$322,108 39
Capital actually paid up in cash	$250,000 00	
Surplus over all liabilities	212,457 61	
Surplus as regards policyholders		462,457 61
Total liabilities		$784,566 00

EXHIBIT OF PREMIUMS.

	Plate glass.
In force December 31, 1910	$567,695 92
Written or renewed during the year	761,663 01
Totals	$1,329,358 93
Deduct expirations and cancellations	628,340 27
Balance	$701,018 66

Total dividends declared from organization: Cash	$1,069,500 00
Total losses incurred during the year (less reinsurance)	242,489 65

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

Gross premiums less return premiums on risks written or renewed during the year: Plate glass	$12,262 42
Gross losses paid	2,953 53

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*Tariff association deposits.

UNITED STATES BRANCH OF THE LONDON GUARANTEE AND ACCIDENT COMPANY, LTD., OF LONDON, ENGLAND.

No. 134 South La Salle street, Chicago, Illinois.

(Incorporated, 1869. Commenced business in California October 17, 1892.)

F. W. LAWSON, President.

Agent for service in California: E. C. LANDIS, San Francisco.

CAPITAL.

Statutory deposit	$500,000 00	
Amount of ledger assets December 31st of previous year		$3,307,808 71

INCOME.

Accident—Gross premiums written and renewed during the year, $109.176.36; deduct reinsurance, $13,027 05; return premiums on policies canceled, $1,871.33; premiums on policies not taken, $12.300.72: Total deductions, $27,199.10	$81,977 26
Health—Gross premiums written and renewed during the year, $16,685.61; deduct reinsurance, $1,677.99; return premiums on policies canceled, $504.60; premiums on policies not taken, $2,879.96: Total deductions, $5,062.55	11,623 06
Liability—Gross premiums written and renewed during the year, $2,943.224.58; deduct reinsurance, $5,907.40; return premiums on policies canceled, $192,782.34; premiums on policies not taken, $264,326.40: Total deductions, $463,016.14	2,480,208 44
Steam boiler—Gross premiums written and renewed during the year, $39,743.38; deduct reinsurance, $10,289.67; return premiums on policies canceled, $3,098.09; premiums on policies not taken, $3,910.50: Total deductions, $17,298.26	22,445 12
Burglary and theft—Gross premiums written and renewed during the year, $124,534.52; deduct reinsurance, $12,738.22; return premiums on policies canceled, $4,277.30; premiums on policies not taken, $14,538.55: Total deductions, $31,554.07	92,980 45
Credit—Gross premiums written and renewed during the year, $392,665.67: deduct return premiums on policies canceled, $135.25; premiums on policies not taken, $7.340.00: Total deductions, $7,475.25	385,190 42
Automobile property damage—Gross premiums written and renewed during the year, $134,361.42; deduct return premiums on policies canceled, $10,465.93; premiums on policies not taken, $18,431.07: Total deductions, $28,897.00	105,464 42
Workmen's collective—Gross premiums written and renewed during the year, $132,487.79; deduct return premiums on policies canceled, $10,561.02; premiums on policies not taken, $8,364.33: Total deductions, $18,925.35	113,562 44
Total net premiums	$3,293,451 61
Bonds and dividends on stocks, $94,493.66; from other sources, $1,835.93	96,329 59
Agents' balances previously charged off	2,763 67
Total income	$3,392,544 87
Sum	$6,700,353 58

DISBURSEMENTS.

Accident—Gross amount paid for losses, $40,276.32; deduct reinsurance, $11,145.46	$29,130 86
Health—Gross amount paid for losses, $5,857.57; deduct reinsurance, $615.36	5,242 21
Liability—Gross amount paid for losses, $1,041,833.53; deduct reinsurance, $45.31	1,041,788 22

Steam boiler—Gross amount paid for losses	$2,161 43
Burglary and theft—Gross amount paid for losses, $36,504.06; deduct reinsurance, $2,004.91; salvage, $712.50; Total deductions, $2,717.41	33,786 65
Credit—Gross amount paid for losses, $313,190.59; deduct salvage, $59,963.55	253,227 04
Automobile property damage—Gross amount paid for losses	26,317 46
Workmen's collective—Gross amount paid for losses	59,281 34
Total net amount paid policyholders for losses	$1,450,935 21
Investigation and adjustment of claims	395,316 50
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	877,255 09
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	93,352 73
Salaries, traveling and all other expenses of agents not paid by commissions	78,351 20
Inspections (other than medical and claim)	31,222 35
Rents	8,588 81
State taxes on premiums	45,407 29
Insurance Department licenses and fees	4,446 04
All other licenses, fees and taxes	3,968 40
Legal expenses	3,755 52
Advertising	10,576 18
Printing and stationery	18,540 64
Postage, telegraph, telephone and express	4,975 34
Furniture and fixtures	3,090 06
Remitted home office	96,329 59
Other disbursements: Office and general, $8,913.10; exchange, $623.66; bureau subscriptions, $4,602.31	14,139 07
Total disbursements	$3,140,250 03
Balance	$3,560,103 55

LEDGER ASSETS.

Book value of bonds and stocks	$2,507,773 96
Cash in office	9,140 06
Deposits in trust companies and banks on interest	300,336 92

Gross premiums in course of collection on policies or renewals:

	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Accident	$14,446 87	$2,923 08	
Health	3,632 89	628 55	
Liability	510,756 47	97,793 42	
Steam boiler	7,535 97	1,305 55	
Burglary and theft	25,213 61	1,241 36	
Automobile property damage	24,084 71	3,767 90	
Workmen's collective	19,352 41	1,178 88	
Totals	$605,022 93	$108,838 74	713,861 67

Other ledger assets: Sundry debtors, $121.29; agents' balances subject to adjustment, $22,437.01; cash in hands of branch claim departments, $5,943.99; traveling expense, $488.65	28,990 94
Ledger assets as per balance	$3,560,103 55

Non-Ledger Assets.

Interest due and accrued on bonds	32,279 47
Gross assets	$3,592,383 02

Deduct Assets Not Admitted.

Premiums in course of collection written prior to October 1, 1911	$108,838 74	
Book value of ledger assets over market value	142,049 61	
Agents' balance subject to adjustment, $22,437.01; traveling expense, $488.65	22,925 66	
Total		273,814 01
Total admitted assets		$3,318,569 01

LIABILITIES.

Losses and claims:		
Accident—Reported or in process of adjustment, $35,727; resisted, $26,250; deduct reinsurance, $13,469; net unpaid claims, except liability claims		$48,508 00
Health—Reported or in process of adjustment, $1,725; deduct reinsurance, $25; net unpaid claims, except liability claims		1,700 00
Steam boiler—Reported or in process of adjustment		625 00
Burglary and theft—Reported or in process of adjustment, $8,581; resisted, $1,000; deduct reinsurance, $1,248; net unpaid claims, except liability claims		8,333 00
Credit—Reported or in process of adjustment, $12,100; resisted, $35,800; net unpaid claims, except liability claims, $47,900; estimated expense of investigation and adjustment of unpaid claims, $2,000		49,900 00
Automobile property damage—Reported or in process of adjustment		3,650 00
Workmen's collective—Reported or in process of adjustment		8,488 00
Net unpaid claims, except liability claims		$121,204 00
Special reserve for unpaid liability losses		997,518 00
Special reserve for credit losses on policies in October, November and December, 1911, being 50 per cent of $113,673.75, gross premiums received on said policies, less $12,876.02 paid during said months on losses under said policies		43,960 00
Special reserve for accrued losses on credit policies in force December 31, 1911, being 50 per cent of $163,382.84, earned premiums on said policies		81,691 00
Total unpaid claims and expenses of settlement		$1,244,373 00
Unearned premiums at 50 per cent on risks running one year or less	$1,090,588 22	
Unearned premiums pro rata on risks running more than one year	133,098 68	
Total unearned premiums		1,223,686 90
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident, $5,056.40; health, $1,271.50; liability, $140,458.03; steam boiler, $2,260.78; burglary and theft, $8,824.76; automobile property damage, $6,623.30; workmen's collective, $4,838.10		169,332 87
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		1,323 51
Estimated amount hereafter payable for federal, state and other taxes, based upon the business of the year of this statement		30,000 00
Advance premiums (100 per cent)		1,120 00
Total		$2,669,836 28
Total amount of all liabilities except capital		$2,669,836 28
Statutory deposit	$500,000 00	
Surplus over all liabilities	148,732 73	
Surplus as regards policyholders		648,732 73
Total liabilities		$3,318,569 01
Surplus as above	$148,732 73	
Received from home office, January	150,000 00	
Total net surplus		$298,732 73

EXHIBIT OF PREMIUMS.

	Accident.	Health.
In force December 31, 1910	$83,046 00	$10,151 00
Written or renewed during the year	109,176 00	16,685 00
Totals	$192,222 00	$26,836 00
Deduct expirations and cancellations	103,445 00	14,331 00
Balance	$88,777 00	$12,505 00
Deduct reinsured policies	5,843 00	976 00
Net in force December 31, 1911	$82,934 00	$11,529 00

	Steam boiler.	Liability.
In force December 31, 1910	$56,045 00	$1,437,461 00
Written or renewed during the year	39,743 00	2,943,224 00
Totals	$95,788 00	$4,380,685 00
Deduct expirations and cancellations	17,437 00	2,688,520 00
Balance	$78,351 00	$1,692,165 00
Deduct reinsured policies	----------	5,907 00
Net in force December 31, 1911	$78,351 00	$1,686,258 00

	Burglary and theft.	Automobile property damage.
In force December 31, 1910	$97,704 00	$35,798 00
Written or renewed during the year	124,534 00	134,361 00
Totals	$222,238 00	$170,159 00
Deduct expirations and cancellations	89,533 00	66,739 00
Balance	$132,705 00	$103,420 00
Deduct reinsured policies	16,242 00	----------
Net in force December 31, 1911	$116,463 00	$103,420 00

	Credit.	Workmen's collective.
In force December 31, 1910	$302,321 00	$41,067 00
Written or renewed during the year	392,665 00	132,487 00
Totals	$694,986 00	$173,554 00
Deduct expirations and cancellations	368,221 00	145,270 00

Total losses incurred during the year (less reinsurance)	$1,450,935 21

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Accident	$6,260 86	$2,241 05
Health	445 89	28 58
Liability	160,919 75	48,010 04
Steam boiler	593 00	----------
Burglary and theft	3,639 81	387 00
Automobile property damage	7,371 83	1,016 26
Totals	$179,231 14	$51,682 93

LOYAL PROTECTIVE INSURANCE COMPANY.

No. 585 Boylston street, Boston, Massachusetts.

(Incorporated as Mutual Association, June 12, 1895; as stock company, July 23, 1909. Commenced business in California November 4, 1910.)

S. AUGUSTUS ALLEN, President. FRANCIS R. PARKS, Secretary.

Agent for service in California: H. J. STANLEY, Santa Monica.

CAPITAL.

Capital stock paid up in cash	$100,000 00	
Amount of ledger assets December 31st of previous year		$327,275 85

INCOME.

Accident and health—Gross premiums written and renewed during the year, $493,712.84; deduct return premiums on policies canceled, $1,607.80		$492,105 04
Policy fees required or represented by applications		47,278 00
Bonds and dividends on stocks, $9,570; from other sources,	$11,179 85	
Rents	120 00	
Total interest and rents		11,299 85
Agents' balances previously charged off		181 76
Total income		$550,864 65
Sum		$878,140 50

DISBURSEMENTS.

Accident and health—Gross amount paid for losses	$290,301 21
Investigation and adjustment of claims	6,775 48
Policy fees retained by agents	46,957 50
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	25,914 33
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	77,441 97
Salaries, traveling and all other expenses of agents not paid by commissions	4,847 50
Medical examiners' fees and salaries	620 50
Rents	130 04
State taxes on premiums	7,940 90
All other licenses, fees and taxes	1,810 67
Insurance Department licenses and fees	341 15
Legal expenses	5,737 31
Advertising	1,314 88
Printing and stationery	8,771 64
Postage, telegraph, telephone and express	7,327 09
Furniture and fixtures	429 10
Stockholders for interest or dividends	10,000 00
Other disbursements: Insurance and bonding companies, $207.25; exchange, $184.19; subscription to insurance journals, $927.56; traveling expense, $506.30; office supplies, $1,134.34; badges, $426.84; premiums collections, $21,197.25; consulting actuary, $300.00; safe depost box, $10.00; petty cash, $194.29	25,088 02
Agents' balances charged off	133 98
Decrease in book value of ledger assets	1,050 00
Total disbursements	$526,933 27
Balance	$351,207 23

LEDGER ASSETS.

Book value of bonds and stocks (Schedule "D")	$253,965 39
Cash in office	926 39
Deposits in trust companies and banks on interest	96,315 45
Ledger assets as per balance	$351,207 23

Non-Ledger Assets.

Interest due and accrued on bonds and stocks	3,084 06
Market value of bonds and stocks over book value	284 61
Gross assets	$354,575 90

LIABILITIES.

Losses and claims:		
Accident and health—Reported or in process of adjustment, $61,877.92; estimated expense of investigation and adjustment of unpaid claims, $638.10		$62,516 02
Unearned premiums, pro rata on risks running one year or less		88,971 67
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		300 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		8,195 80
Advance premium (100 per cent)		3,661 00
Care and custody of funds, $50.35; excess of special deposits over liabilities in states holding deposits, $116.10		166 45
Total amount of all liabilities except capital		$163,810 94
Capital actually paid up in cash	$100,000 00	
Surplus over all liabilities	90,764 96	
Surplus as regards policyholders		190,764 96
Total liabilities		$354,575 90

EXHIBIT OF PREMIUMS.

	Accident and health.
In force December 31, 1910	$127,554 00
Written or renewed during the year	493,712 84
Totals	$621,266 84
Deduct expirations and cancellations	487,809 34
Net in force December 31, 1911	*$133,457 50

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*Amount of premiums due and payable quarterly.

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

Gross premiums less return premiums on risks written or renewed during the year: Accident and health	$9,652 00
Gross losses paid	5,192 35

MARYLAND CASUALTY COMPANY.

Maryland Casualty Building, Baltimore, Maryland.

(Incorporated February 4, 1898. Commenced business in California December 6, 1898.)

JOHN T. STONE, President. JAMES F. MITCHELL, Secretary.

Agent for service in California: W. B. WENTZ, San Francisco.

CAPITAL.

Capital stock paid up in cash	$1,000,000 00	
Amount of ledger assets December 31st of previous year		$5,768,583 83

INCOME.

Accident—Gross premiums written and renewed during the year, $960.875.22 ; deduct reinsurance, $39.569.16 ; return premiums on policies canceled, $2.386.25 ; premiums on policies not taken, $148.530.00 : Total deductions, $190.485.41		$770.389 81
Health—Gross premiums written and renewed during the year, $373.826.68 ; deduct reinsurance, $13.133.74 ; return premiums on policies canceled, $922.60 ; premiums on policies not taken, $73.085.87 : Total deductions, $87.142.21		286.684 47
Liability—Gross premiums written and renewed during the year, $3.065.239.64 ; deduct reinsurance, $420.69 ; return premiums on policies canceled, $162.527.62 ; premiums on policies not taken, $508.015.86 : Total deductions, $670,964.17		2,394.275 47
Fidelity—Gross premiums written and renewed during the year, $139.381.36 ; deduct reinsurance, $11,290.06 ; return premiums on policies canceled, $1,966.79 ; premiums on policies not taken, $16.867.88 : Total deductions, $30,124.73		109,256 63
Surety—Gross premiums written and renewed during the year, $274.291.48 ; deduct reinsurance, $4,950.77 ; return premiums on policies canceled, $4.091.61 ; premiums on policies not taken, $12,297.39 : Total deductions, $21,339.77		252,951 71
Plate glass—Gross premiums written and renewed during the year, $383.971.18 ; deduct reinsurance, $23.71 ; return premiums on policies canceled, $3,344.54 ; premiums on policies not taken, $76,565.80 : Total deductions, $79,934.05		304.037 13
Steam boiler—Gross premiums written and renewed during the year, $317,622.14 ; deduct return premiums on policies canceled, $5.398.64 ; premiums on policies not taken, $60,976.38 : Total deductions, $66.375.02		251.247 12
Burglary and theft—Gross premiums written and renewed during the year, $382.254.28 ; deduct reinsurance, $6.242.04 ; return premiums on policies canceled, $1,650.25 ; premiums on policies not taken, $76.558.86 : Total deductions, $84.451.15		297.803 13
Sprinkler—Gross premiums written and renewed during the year, $210.288.88 ; deduct reinsurance, $884.54 ; return premiums on policies canceled, $2,269.44 : premiums on policies not taken, $67.298.98 : Total deductions, $70.452.96		139.835 92
Fly wheel—Gross premiums written and renewed during the year, $33,454.37 : deduct return premiums on policies canceled, $328.66 : premiums on policies not taken, $7,587.90 : Total deductions, $7,916.56		25.537 81
Automobile property damage—Gross premiums written and renewed during the year, $126,384.34 ; deduct return premiums on policies canceled, $9.889.93 : premiums on policies not taken, $17,540.18 : Total deductions, $27.430.11		98.954 23
Workmen's collective—Gross premiums written during the year, $73.280.03 : deduct return premiums on policies canceled, $5.741.41 : premiums on policies not taken, $1.989.62 : Total deductions, $7.731.03		65.549 00
Physical defense—Gross premiums written and renewed during the year, $41.742.71 ; deduct return premiums on policies canceled, $60.38 : premiums on policies not taken, $6,394.73 : Total deductions, $6.455.11		35.287 60
Total net premiums		$5.031.810 03
Bonds and dividends on stocks, $183.382.40 ; from other sources, $5.976.24	$189.358 64	
Rents	40.117 80	
Total interest and rents		229.476 44
Profit on sale or maturity of ledger assets		6.472 50
Increase in book value of ledger assets		42.562 80
Total income		$5.310.321 77
Sum		$11.078.905 60

DISBURSEMENTS.

Accident—Gross amount paid for losses, $393,464.42; deduct reinsurance, $25,820.66	$367,643 76
Health—Gross amount paid for losses, $163,034.38; deduct reinsurance, $8,168.33	154,866 05
Liability—Gross amount paid for losses	957,113 78
Fidelity—Gross amount paid for losses, $1,293.64; deduct salvage, $642.74	650 90
Surety—Gross amount paid for losses, $22,873.76; deduct salvage, $9,250.56	13,623 20
Plate glass—Gross amount paid for losses, $130,045.72; deduct salvage, $5,042.31	125,003 41
Steam boiler—Gross amount paid for losses, $20,302.23; deduct salvage, $17.33	20,284 90
Burglary and theft—Gross amount paid for losses, $107,546.81; deduct reinsurance, $6,264.17	101,282 64
Sprinkler—Gross amount paid for losses, $66,638.70; deduct salvage, $3,305.30	63,333 40
Fly wheel—Gross amount paid for losses	19,552 00
Automobile property damage—Gross amount paid for losses	21,972 46
Workmen's collective—Gross amount paid for losses	35,242 63
Physical defense—Gross amount paid for losses	8,692 40
Total net amount paid policyholders for losses	$1,889,261 53
Investigation and adjustment of claims	420,787 57
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	1,329,193 01
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	262,047 85
Salaries, traveling and all other expenses of agents not paid by commissions	161,066 66
Medical examiners' fees and salaries	3,716 70
Inspection (other than medical and claim)	129,638 88
Rents	23,987 85
Repairs and expenses (other than taxes) on real estate	11,565 76
Taxes on real estate	7,984 61
State taxes on premiums	77,341 01
Insurance Department licenses and fees	16,529 73
All other licenses, fees and taxes	46,066 62
Legal expenses	7,502 60
Advertising	31,590 44
Printing and stationery	45,966 79
Postage, telegraph, telephone and express	11,841 08
Furniture and fixtures	6,030 90
Stockholders for interest or dividends	175,000 00
Other disbursements: Miscellaneous, $3,705.36; traveling, $10,833.68; various bureaus and associations, $8,258.73; exchange, $1,206.78	24,004 55
Loss on sale or maturity of ledger assets	42 50
Decrease in book value of ledger assets	13,799 43
Total disbursements	$4,694,966 07
Balance	$6,383,939 53

LEDGER ASSETS.

Book value of real estate	$837.599 42
Mortgage loans on real estate	8.000 00
Book value of bonds and stocks	4.478.406 76
Cash in office	30,076 19
Deposits in trust companies and banks not on interest	20,089 98
Deposits in trust companies and banks on interest	65.053 83

Gross premiums in course of collection on policies or renewals:

	Issued on or after October 1. 1911.	Issued prior to October 1. 1911.	
Accident	$110.680 70	$1.147 84	
Health	37.361 73	760 01	
Liability	411.408 31	31.519 56	
Fidelity	16.177 60	464 83	
Surety	58.515 33	7.152 30	
Plate glass	47.419 37	809 38	
Steam boiler	60.335 85		
Burglary and theft	58.239 13	641 33	
Sprinkler	18.858 56	375 53	
Fly wheel	2.078 12		
Automobile property damage	15.832 67	680 80	
Workmen's collective	6.358 20	823 44	
Physical defense	5.054 67	59 91	
Totals	$848.320 24	$44,434 93	892,755 17
Bills receivable		$11,463 33	
Other ledger assets: Reinsured losses due from other companies, $1.356.38; salvage, $1,170.29; advanced on contract, $6.042.47; agents' balances, $31,925.71		40.494 85	51,958 18
Ledger assets as per balance			$6,383,839 53

Non-Ledger Assets.

Interest due and accrued on bonds	29,680 71
Gross assets	$6,413,620 24

Deduct Assets Not Admitted.

Bills receivable	$11,463 33	
Premiums in course of collection written prior to October 1, 1911	44.434 93	
Agents' balances, $31,927.71; advance, $6,042.47	37.968 18	
		93,866 44
Total admitted assets		$6.319,753 80

LIABILITIES.

Losses and claims:

Accident—Reported or in process of adjustment, $71.616.00; resisted, $298.30; net unpaid claims except liability claims, $101,446.90; estimated expense of investigation and adjustment of unpaid claims, $5.114.97	$106.561 87
Health—Reported or in process of adjustment, $27.020.04; estimated expense of investigation and adjustment of unpaid claims, $355.89	27.375 93
Fidelity—Reported or in process of adjustment	7,536 38
Surety—Resisted for policyholders, $1,565; reported or in process of adjustment, $28,350.00; net unpaid claims except liability claims	29.915 00
Plate glass—Reported or in process of adjustment, $20,467.44; resisted, $1,931.40; net unpaid claims except liability claims, $22,398.84; estimated expense of investigation and adjustment of unpaid claims, $33.65	22,432 49

Steam boiler—Resisted for policyholders, $3,575.00; reported or in process of adjustment, $7,672.62; resisted, $3,150.00; net unpaid claims except liability claims, $14,397.62; estimated expense of investigation and adjustment of unpaid claims, $1,167.38		15,565 00
Burglary and theft—Reported or in process of adjustment, $20,720.32; resisted, $17,800.00; net unpaid claims except liability claims, $38,520.32; estimated expense of investigation and adjustment of unpaid claims, $2,502.38		41,022 70
Sprinkler—Reported or in process of adjustment, $5,088.03; resisted, $1,250; net unpaid claims except liability claims, $6,338.03; estimated expense of investigation and adjustment of unpaid claims, $319.56		6,657 59
Fly wheel—Net unpaid claims except liability claims		750 00
Automobile property damage—Resisted for policyholders, $3,452; reported or in process of adjustment, $3,112.15; net unpaid claims except liability claims, $6,564.15; estimated expense of investigation and adjustment of unpaid claims, $980.85		7,545 00
Workmen's collective—Reported or in process of adjustment, $6,366.08; estimated expense of investigation and adjustment of unpaid claims, $1,753.92		8,120 00
Physicians' defense—Resisted for policyholders, $17,825.00; reported or in process of adjustment, $3,725; net unpaid claims except liability claims		21,550 00
Net unpaid claims, except liability claims		$295,031 96
Special reserve for unpaid liability losses		967,815 00
Unearned premiums at 50 per cent on risks running one year or less	$1,836,749 38	
Unearned premiums, pro rata on risks running more than one year	518,982 84	
Total unearned premiums		2,355,732 22
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident, $38,738.24; health, $11,955.75; liability, $98,960.70; fidelity, $4,044.40; surety, $14,628.83; plate glass, $16,596.78; steam boiler, $15,083.96; burglary and theft, $16,658.39; sprinkler, $4,714.64; fly wheel, $602.65; automobile property damage, $3,958.17; workmen's collective, $1,589.55; physicians' defense, $1,516.40		229,046 46
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		8,052 77
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		85,321 14
Reinsurance		2,116 25
Other liabilities: Contingent reserve for unadjusted claims		100,000 00
Total		$4,043,115 80
Total amount of all liabilities except capital		$4,043,115 80
Capital actually paid up in cash	$1,000,000 00	
Surplus over all liabilities	1,276,638 00	
Surplus as regards policyholders		2,276,638 00
Total liabilities		$6,319,753 80

EXHIBIT OF PREMIUMS.

	Accident.	Health.	Liability.
In force December 31, 1910	$690.880 54	$253.474 40	$1.641.234 97
Written or renewed during the year	960.875 22	373.826 68	3,065.239 64
Totals	$1.651.755 76	$627.301 08	$4.706.474 61
Deduct expirations and cancellations	926.222 75	347.587 42	3.035.265 14
Balance	$725.533 01	$279.713 66	$1.671.209 47
Deduct reinsured policies	39.569 16	13.133 74	420 69
Net in force December 31, 1911	$685.963 85	$266.579 92	$1.670.788 78

	Plate glass.	Fly wheel.
In force December 31, 1910	$293.097 47	$43.152 55
Written or renewed during the year	383.971 18	33.454 37
Totals	$667.068 65	$76.606 92
Deduct expirations and cancellations	363.625 80	30.409 30
Balance	$313,442 85	$46.197 62
Deduct reinsured policies	23 71	----------
Net in force December 31, 1911	$313.419 14	$46.197 62

	Surety.	Fidelity.
In force December 31, 1910	$56.320 25	$13.184 41
Written or renewed during the year	274.291 48	139.381 36
Totals	$330.611 73	$152.565 77
Deduct expirations and cancellations	105,079 57	39.335 38
Balance	$225.532 16	$113.230 39
Deduct reinsured policies	4.950 77	11.290 06
Net in force December 31, 1911	$220.581 39	$101.940 33
Amount at risk December 31, 1911	$38,429,170 71	$26,458.127 77

	Steam boiler.	Burglary and theft.	Automobile property damage.
In force December 31, 1910	$485.022 93	$428.111 79	$44.051 01
Written or renewed during the year	317,622 14	382.254 28	126.384 34
Totals	$802,645 07	$810.366 07	$170.435 35
Deduct expirations and cancellations	266,601 12	373.328 32	71,481 12
Balance	$536.043 95	$437.037 75	$98.954 23
Deduct reinsured policies	----------	6.242 04	----------
Net in force December 31, 1911	$536.043 95	$430.795 71	$98.954 23

	Sprinkler.	Physicians' defense.	Workmen's collective.
In force December 31, 1910	$203.309 42	$32.472 84	$17.154 63
Written or renewed during the year	210.288 88	41.742 71	73.280 03
Totals	$413,598 30	$74.215 55	$90.434 66
Deduct expirations and cancellations	208.179 14	38.306 63	75.242 05
Balance	$205.419 16	$35.908 92	$15.192 61
Deduct reinsured policies	884 54	----------	----------
Net in force December 31, 1911	$204.534 62	$35.908 92	$15.192 61

Total dividends declared from organization: Cash, $1.279.500.00; stock, $250.000	$1.529.500 00
Total losses incurred during the year (less reinsurance)	197.358 67

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Accident	$20,740 07	$6,734 59
Health	3,605 33	1,577 32
Liability	86,412 56	14,399 54
Fidelity	3,741 57	----------
Surety	15,193 88	----------
Plate glass	11,390 89	2,920 68
Steam boiler	4,142 03	----------
Burglary and theft	12,289 81	3,897 02
Sprinkler	9,862 75	958 86
Fly wheel	248 82	----------
Automobile property damage	5,438 85	474 12
Physicians' defense	2,159 12	124 55
Totals	$175,225 68	$31,086 68

MASSACHUSETTS BONDING AND INSURANCE COMPANY.

No. 77 State street, Boston, Massachusetts.

(Incorporated July 29, 1907. Commenced business November 26, 1907.)

T. J. FALVEY, President. JOHN T. BURNETT, Secretary.

Agent for service in California: ROBERTSON & HALL, San Francisco.

CAPITAL.

Capital stock paid up in cash	$1,000,000 00	
Amount of ledger assets December 31st of previous year		$1,349,260 44
Increase of paid up capital during the year		500,000 00
Extended at		$1,849,260 44

INCOME.

Accident—Gross premiums written and renewed during the year	$115 00
Health—Gross premiums written and renewed during the year	56 00
Liability—Gross premiums written and renewed during the year	3,317 76
Fidelity—Gross premiums written and renewed during the year, $288,988.07; deduct reinsurance, $19,044.73; return premiums on policies canceled, $23,266.65; premiums on policies not taken, $20,291.37: Total deductions, $62,602.75	226,385 32
Surety—Gross premiums written and renewed during the year, $597,574.33; deduct reinsurance, $33,883.53; return premiums on policies canceled, $49,193.65; premiums on policies not taken, $35,312.95: Total deductions, $118,390.13	479,184 20
Plate glass—Gross premiums written and renewed during the year	6 41
Burglary and theft—Gross premiums written and renewed during the year, $173,985.62; deduct reinsurance, $21,990.50; return premiums on policies canceled, $9,619.53; premiums on policies not taken, $32,286.00: Total deductions, $63,896.03	110,089 59
Total net premiums	$819,154 28
Bonds and dividends on stocks, $40,220.24; from other sources, $4,284.59	44,504 83
Premium on sale of increase of capital stock	250,000 00
Total income	$1,113,659 11
Sum	$2,962,919 55

DISBURSEMENTS.

Fidelity—Gross amount paid for losses, $19,000.42; deduct reinsurance, $1,458.85; salvage, $642.43; Total deductions, $816.42	$18,184 00
Surety—Gross amount paid for losses, $151,076.27; deduct salvage, $79,932.12	71,144 15
Burglary and theft—Gross amount paid for losses, $46,668.10; deduct reinsurance, $4,701.48; salvage, $1,094.69; Total deductions, $5,796.17	40,871 93
Total net amount paid policyholders for losses	$130,020 08
Investigation and adjustment of claims	12,266 16
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	188,789 00
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	93,894 05
Salaries, traveling and all other expenses of agents not paid by commissions	86,267 20
Rents	14,203 25
Repairs and expenses (other than taxes) on real estate	15 00
State taxes on premiums	9,195 22
Insurance Department licenses and fees	5,827 83
All other licenses, fees and taxes	3,683 42
Legal expenses	3,731 31
Advertising	11,278 49
Printing and stationery	13,703 26
Postage, telegraph, telephone and express	14,861 39
Furniture and fixtures	8,058 38
Stockholders for interest or dividends	52,500 00
All other disbursements	24,843 93
Agents' balances charged off	1,318 50
Total disbursements	$674,636 47
Balance	$2,288,283 08

LEDGER ASSETS.

Book value of real estate			$2,000 00
Mortgage loans on real estate			12,000 00
Book value of bonds and stocks			1,805,038 28
Cash in office			3,357 47
Deposits in trust companies and banks not on interest			10,877 43
Deposits in trust companies and banks on interest			167,582 03
Gross premiums in course of collection on policies or renewals:			
	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Accident	$115 00		
Health	56 00		
Liability	2,782 76		
Fidelity	54,264 56	$19,084 28	
Surety	114,860 45	40,395 22	
Plate glass	6 41		
Burglary and theft	26,398 18	9,278 00	
Totals	$198,483 36	$68,757 50	267,240 86
Other ledger assets			20,187 01
Ledger assets as per balance			$2,288,283 08

Non-Ledger Assets.

Interest due and accrued on:		
Bonds	$18,505 78	
Other assets	350 04	
		18,855 82
Gross assets		$2,307,138 90

Amount brought forward		$2,307,138 90

Deduct Assets Not Admitted.

Premiums in course of collection written prior to October 1, 1911	$68,757 50	
Book value of ledger assets over market value	29,331 13	
		98,088 63
Total admitted assets		$2,209,050 27

LIABILITIES.

Losses and claims:		
Fidelity—Reported or in process of adjustment, $15,217.29; resisted, $11,400.00; deduct reinsurance, $1,250.00; net unpaid claims, except liability claims, $25,367.29; estimated expense of investigation and adjustment of unpaid claims, $1,750.00		$27,117 29
Surety—Reported or in process of adjustment, $46,534.42; resisted, $38,295.72; net unpaid claims, except liability claims, $84,830.14; estimated expense of investigation and adjustment of unpaid claims, $6,000.00		90,830 14
Burglary and theft—Reported or in process of adjustment, $12,204.00; resisted, $5,750.00; deduct reinsurance, $2,835.82; net unpaid claims, except liability claims		15,118 18
Total		$133,065 61
Special reserve for unpaid liability losses		129 38
Total unpaid claims and expenses of settlement		$133,194 99
Unearned premiums on risks running one year or less (fidelity, surety, and burglary, 50 per cent; accident, health, liability, and plate glass, pro rata)	$318,222 19	
Unearned premiums, pro rata on risks running more than one year	87,212 27	
Total unearned premiums		405,435 46
Commissions, brokerage and other charges due or to became due on policies issued subsequent to October 1, 1911: Accident, $26.45; health, $12.88; liability, $640.03; fidelity, $12,480.84; surety, $26,417.90; burglary and theft, $6,071.58		45,649 68
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		9,009 40
Estimated amount hereafter payable for federal, state and other taxes, based upon the business of the year of this statement		12,287 31
Reinsurance		9,424 51
Advance premiums (100 per cent)		4,481 06
Other liabilities		10,000 00
Total		$629,482 41
Capital actually paid up in cash	$1,000,000 00	
Surplus over all liabilities	579,567 86	
Surplus as regards policyholders		1,579,567 86
Total liabilities		$2,209,050 27

EXHIBIT OF PREMIUMS.

	Accident.	Health.	Plate glass.	Liability.
Written or renewed during the year	$115 00	$56 00	$6 41	$3,317 76

	Burglary and theft.	Surety.	Fidelity.
In force December 31, 1910	$147,370 26	$208,604 18	$405,971 95
Written or renewed during the year	173,985 62	288,988 07	597,574 33
Totals	$321,355 88	$497,592 25	$1,003,546 28
Deduct expirations and cancellations	156,020 45	247,841 85	574,710 37
Balance	$165,335 43	$249,750 40	$428,835 91
Deduct reinsured policies	27,845 85	18,984 72	32,558 95
Net in force December 31, 1911	$137,489 58	$230,765 68	$396,276 96

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Fidelity	$2,717 90	$117 45
Surety	20,207 54	----------
Burglary and theft	1,639 28	----------
Totals	$24,564 72	$117 45

THE MEDICAL PROTECTIVE INSURANCE COMPANY.

No. 901 Shoaff Building, Fort Wayne, Indiana.

(Incorporated December 2, 1909. Commenced business in California January 1, 1910.)

Louis Fox, President. Byron H. Somers, Secretary.

Agent for service in California: Ira Van Slyke, Oakland.

CAPITAL.

Capital stock paid up in cash	$100,000 00	
Amount of ledger assets December 31st of previous year		$128,692 88

INCOME.

Physicians' defense—Gross premiums written and renewed during the year, $61,682.50; deduct premiums on policies not taken, $5,116.31	$56,566 19
Interest on mortgage loans, $6,319.50; bonds and dividends on stocks, $142.62; from other sources, $76.53	6,538 65
Overpaid by agents, $54.79; profit and loss, $3.33	58 12
Total income	$63,162 96
Sum	$191,855 84

DISBURSEMENTS.

Investigation and adjustment of claims	$10,011 62
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	14,963 67
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	7,041 34
Salaries, traveling and all other expenses of agents not paid by commissions	877 91
Rents	1,014 90
State taxes on premiums	692 88
Insurance Department licenses and fees	942 97
Local taxes	266 76
Legal expenses	500 00
Advertising	1,313 16
Printing and stationery	2,323 28
Postage, telegraph, telephone and express	3,712 06
Furniture and fixtures	438 10
Discount and collections	3 41
Loss on sale or maturity of ledger assets	137 46
Total disbursements	$44,239 52
Balance	$147,616 32

LEDGER ASSETS.

Mortgage loans on real estate, first liens	$126,151 64
Book value of bonds and stocks	100 00
Cash in office	1,683 20
Deposits in trust companies and banks not on interest	5,291 61
Deposits in trust companies and banks on interest	5,500 00
Gross premiums in course of collection on policies or renewals: Physicians' defense—Issued on or after October 1, 1911, $7,902.87; issued prior to October 1, 1911, $987	8,889 87
Ledger assets as per balance	$147,616 32

Non-Ledger Assets.

Interest due and accrued on:		
Mortgages	$2,004 54	
Bonds	2 50	
Bank savings accounts	79 01	
		2,086 05
Furniture and fixtures, $2,719.45; postage, $120.04; supplies, $751.20		3,509 69
Gross assets		$153,293 06

Deduct Assets Not Admitted.

Furniture and fixtures	$2,719 45	
Supplies, printed matter and stationery	751 20	
Premiums in course of collection written prior to October 1, 1911	987 00	
		4,457 65
Total admitted assets		$148,835 41

LIABILITIES.

Losses and claims:		
Physicians' defense—Resisted for policyholders		$1,875 39
Unearned premiums at 50 per cent on risks running one year or less		26,627 22
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Physicians' defense		1,534 21
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		819 00
Advance premiums (100 per cent)		187 50
Total amount of all liabilities except capital		$31,043 32
Capital actually paid up in cash	$100,000 00	
Surplus over all liabilities	17,792 09	
Surplus as regards policyholders		117,792 09
Total liabilities		$148,835 41

EXHIBIT OF PREMIUMS.

	Physicians' defense.
In force December 31, 1910	$43,373 10
Written or renewed during the year	61,682 50
Totals	$105,055 60
Deduct expirations and cancellations	51,801 16
Net in force December 31, 1911	$53,254 44
Total dividends declared from organization	$7,100 00
Total losses incurred during the year (less reinsurance)	18,106 03

BUSINESS IN CALIFORNIA DURING 1911.

THE METROPOLITAN CASUALTY.

No. 47 Cedar street, New York City, New York.

(Incorporated 1874. Commenced business in California May 8, 1879.)

Eugene H. Winslow, President. S. Wm. Burton, Secretary.

Agent for service in California: H. R. Mann & Co., San Francisco.

CAPITAL.

Capital stock paid up in cash	$200,000 00	
Amount of ledger assets December 31st of previous year		$824,284 41

INCOME.

Accident—Gross premiums written and renewed during the year, $150,941.02; deduct reinsurance, $5,276.69; return premiums on policies canceled, $4,240.17; premiums on policies not taken, $23,655.05: Total deductions, $33,171.91	$117,769 11
Health—Gross premiums written and renewed during the year, $45,053.56; deduct reinsurance, $218.07; return premiums on policies canceled, $1,482.69; premiums on policies not taken, $11,318.65: Total deductions, $13,019.41	32,034 15
Plate glass—Gross premiums written and renewed during the year, $686,522.89; deduct return premiums on policies canceled, $13,561.74; premiums on policies not taken, $105,494.70: Total deductions, $119,056.44	567,466 45
Total net premiums	$717,269 71
Bonds and dividends on stocks, $25,489.75; from other sources, $538.04	26,027 79
Agents' balances previously charged off	6 24
Total income	$743,303 74
Sum	$1,567,588 15

DISBURSEMENTS.

Accident—Gross amount paid for losses, $57,691.06; deduct reinsurance, $6,719.72	$50,971 34
Health—Gross amount paid for losses, $19,661.01; deduct reinsurance, $546.40	19,114 61
Plate glass—Gross amount paid for losses, $261,724.25; deduct salvage, $3,368.15	258,356 10
Total net amount paid policyholders for losses	$328,442 05
Investigation and adjustment of claims	825 25
Commissions or brokerage to agents (less amount received on return premiums and reinsurance)	224,653 59
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	79,971 25
Salaries, traveling and all other expenses of agents not paid by commissions	20,031 76
Medical examiners' fees and salaries	1,813 90
Inspection (other than medical and claim)	8 50
Rents	7,475 04
State taxes on premiums	7,800 19
Insurance Department licenses and fees	3,475 59
All other licenses, fees and taxes	5,170 27
Legal expenses	1,215 75
Advertising	2,305 77
Printing and stationery	10,691 67
Postage, telegraph, telephone and express	6,330 14
Furniture and fixtures	992 11
Stockholders for interest or dividends	20,000 00

Other disbursements: Auditor, $385.00; commercial agencies and underwriters' associations, $3,239.13; exchange on bank checks, $254.87; home office expenses for toilet supplies, ice, drinking water and rubber stamps, $415.90	$4,294 90
Agents' balances charged off	208 46
Total disbursements	$725,706 19
Balance	$841,881 96

LEDGER ASSETS.

Book value of bonds and stocks			$630,307 70
Cash in office			1,871 50
Deposits in trust companies and banks not on interest			1,000 00
Deposits in trust companies and banks on interest			56,652 44
Gross premiums in course of collection on policies or renewals:			
	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Accident	$19,278 92	$220 28	
Health	9,124 87	154 00	
Plate glass	120,025 29	2,264 66	
Totals	$148,429 08	$2,638 94	151,068 02
Reinsurance loss account			982 30
Ledger assets as per balance			$841,881 96

Non-Ledger Assets.

Interest due and accrued on bonds	4,824 14
Market value of bonds and stocks over book value	7,949 80
Gross assets	$854,655 90

Deduct Assets Not Admitted.

Premiums in course of collection written prior to October 1, 1911	2,638 94
Total admitted assets	$852,016 96

LIABILITIES.

Losses and claims:		
Accident—Reported or in process of adjustment, $3,720.20; resisted, $5,550		$9,270 20
Health—Reported or in process of adjustment, $2,640.76; resisted, $350		2,990 76
Plate glass—Reported or in process of adjustment, $10,042.54; resisted, $1,000		11,042 54
Net unpaid claims, except liability claims		$23,303 50
Unearned premiums at 50 per cent on risks running one year or less		363,398 37
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident, $6,499.73; health, $3,092.96; plate glass, $39,101.04		48,693 73
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		1,373 86
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		6,619 60
Reinsurance		743 64
Total amount of all liabilities except capital		$444,132 70
Capital actually paid up in cash	$200,000 00	
Surplus over all liabilities	207,884 26	
Surplus as regards policyholders		407,884 26
Total liabilities		$852,016 96

EXHIBIT OF PREMIUMS.

	Accident.	Health.	Plate glass.
In force December 31, 1910	$138,517 91	$47,412 59	$617,050 20
Written or renewed during the year	150,941 02	45,053 56	686,522 89
Totals	$289,458 93	$92,466 15	$1,303,573 09
Deduct expirations and cancellations	175,294 44	59,164 56	723,274 68
Balance	$114,164 49	$33,301 59	$580,298 41
Deduct reinsured policies	782 75	185 00	------------
Net in force December 31, 1911	$113,381 74	$33,116 59	$580,298 41

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Accident	$6,455 41	$5,721 66
Health	390 20	1,210 70
Plate glass	10,047 53	4,968 63
Totals	$16,893 14	$11,900 99

NATIONAL CASUALTY OF DETROIT, MICHIGAN.

No. 422 Majestic Building, Detroit, Michigan.

(Incorporated December 19, 1904. Commenced business in California, 1905.)

W. G. CURTIS, President. FRANKLIN S. DEWEY, Secretary.

Agent for service in California: A. E. NASH, San Francisco.

CAPITAL.

Capital stock paid up in cash	$200,000 00	
Amount of ledger assets December 31st of previous year		$298,149 25

INCOME.

Accident and health—Gross premiums written and renewed during the year, $736,913.00; deduct reinsurance, $7,663.88; return premiums on policies canceled, $1,277.50; premiums on policies not taken, $17,058.85: Total deductions, $26,000.23	$710,912 77
Policy fees required or represented by applications	43,200 00
Interest on mortgage loans, $46.66; collateral loans, $345.00	391 66
Bonds and dividends on stocks, $11,097.85; from other sources, $273.87	11,371 72
Increase in book value of ledger assets	2,350 00
Total income	$768,226 15
Sum	$1,066,375 40

DISBURSEMENTS.

Accident and health—Gross amount paid for losses, $287,360.26; deduct reinsurance, $3,169.49	$284,190 77
Investigation and adjustment of claims	4,791 47
Policy fees retained by agents	43,010 30
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	249,970 87
Salaries, fees and all other compensation of officers, directors, trustees and home office employees	50,037 31
Salaries, traveling and all other expenses of agents not paid by commissions	23,679 31

Rents	$11,235 53
State taxes on premiums	12,363 53
Insurance Department licenses and fees	2,806 07
All other licenses, fees and taxes	2,643 11
Legal expenses	2,555 82
Advertising	4,606 59
Printing and stationery	10,065 60
Postage, telegraph, telephone and express	9,754 22
Furniture and fixtures	1,489 36
Stockholders for interest or dividends	16,000 00
Other disbursements	10,069 72
Agents' balances charged off	3,841 21
Loss on sale or maturity of ledger assets	203 73
Decrease in book value of ledger assets	651 69
Total disbursements	$743,966 21
Balance	$322,409 19

LEDGER ASSETS.

Mortgage loans on real estate, first liens	$7,100 00
Loans secured by pledge of bonds, stocks or other collaterals	6,550 00
Book value of bonds and stocks (Schedule "D")	256,351 78
Cash in office	1,145 04
Deposits in trust companies and banks not on interest	39,253 81
Deposits in trust companies and banks on interest	5,000 00
Gross premiums in course of collection on policies or renewals:	
Accident and health, issued on or after October 1, 1911	4,022 00
Agents' balances secured	2,986 56
Ledger assets as per balance	$322,409 19

Non-Ledger Assets.

Interest due and accrued on:		
Mortgages	$390 20	
Bonds	3,924 29	
Collateral loans	101 00	
Other assets	175 00	
		4,590 49
Furniture and supplies		30,000 00
Gross assets		$356,999 68

Deduct Assets Not Admitted.

Supplies, printed matter and stationery, and furniture and fixtures	30,000 00
Total admitted assets	$326,999 68

LIABILITIES.

Losses and claims: Accident and health—Reported in process of adjustment, $18,758.00; resisted, $1,549.00; deduct reinsurance, $750.00; net unpaid claims except liability claims, $19,557.00; estimated expense of investigation and adjustment of unpaid claims, $500.00		$20,057 00
Unearned premiums at 50 per cent on risks running one year or less		8,673 15
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident and health		1,005 00
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		200 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		11,150 00
Advance premiums (100 per cent)		5,533 85
Total amount of all liabilities except capital		$46,619 00
Capital actually paid up in cash	$200,000 00	
Surplus over all liabilities	80,380 68	

EXHIBIT OF PREMIUMS.

	Accident and health.
In force December 31, 1910	$10,480 00
Written or renewed during the year	736,913 00
Totals	$747,393 00
Deduct expirations and cancellations	730,046 70
Net in force December 31, 1911	$17,346 30

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

Gross premiums less return premiums on risks written or renewed during the year: Accident and health	$34,742 99
Gross losses paid	11,255 13

NATIONAL SURETY COMPANY.

No. 115 Broadway, New York City, New York.

(Incorporated February 24, 1897. Commenced business in California about March 4, 1902.)

Wm. B. Joyce, President. Hubert J. Hewitt, Secretary.

Agent for service in California: Frank L. Gilbert, San Francisco, Cal.

CAPITAL.

Capital stock paid up in cash	$1,500,000 00	
Amount of ledger assets December 31st of previous year		$5,619,727 82

INCOME.

Fidelity—Gross premiums written and renewed during the year, $1,624,331.04; deduct reinsurance, $34,476.00; return premiums on policies canceled, $144,285.39; premiums on policies not taken, $186,861.60: Total deductions, $365,622.99		$1,258,708 05
Surety—Gross premiums written and renewed during the year, $2,278,035.01; deduct reinsurance, $151,277.87; return premiums on policies canceled, $52,821.04; premiums on policies not taken, $375,834.88: Total deductions, $579,933.79		1,698,101 22
Burglary and theft—Gross premiums written and renewed during the year, $632,101.56; deduct reinsurance, $79,181.80; return premiums on policies canceled, $20,176.93; premiums on policies not taken, $80,583.71: Total deductions, $179,942.44		452,159 12
Total net premiums		$3,408,968.39
Interest on mortgage loans	$923 83	
Bonds and dividends on stocks, $162,117.97; from other sources, $14,749.75	176,867 72	
Rents	7,155 35	
Total interest and rents		184,946 90
From all other sources: Miscellaneous income, $1,738.19; miscellaneous suspense items, $2,026.16		3,764 35
Agents' balances previously charged off		20 00
Profit on sale or maturity of ledger assets		10,989 98
Total income		$3,608,689 62
Sum		$9,228,417 44

DISBURSEMENTS.

Fidelity—Gross amount paid for losses, $681,311.68; deduct reinsurance, $157,779.71; salvage, $120,725.87: Total deductions, $278,505.58	$402,806 10

Surety—Gross amount paid for losses, $590,204.98; deduct reinsurance, $14,992.31; salvage, $238,784.36: Total deductions, $253,776.67	$336,428 31
Burglary and theft—Gross amount paid for losses, $182,681.39; deduct reinsurance, $31,807.37; salvage, $1,627.65: Total deductions, $33,435.02	149,246 37
Total net amount paid policyholders for losses	$888,480 78
Investigation and adjustment of claims	88,756 45
Commissions or brokerage to agents (less amount received on return premiums and reinsurance)	778,298 96
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	390,552 76
Salaries, traveling and all other expenses of agents not paid by commissions	150,694 60
Consulting attorney, resident vice-president and attorney in fact fees	22,218 18
Inspections (other than medical and claim)	15,570 95
Rents	36,589 46
Repairs and expenses (other than taxes) on real estate	2,766 52
Taxes on real estate	1,741 59
State taxes on premiums	52,049 58
Insurance Department licenses and fees	17,534 96
All other licenses, fees and taxes	6,647 28
Legal expenses	2,684 44
Advertising	19,823 14
Printing and stationery	30,979 20
Postage, telegraph, telephone and express	42,960 66
Furniture and fixtures	7,563 00
Stockholders for interest or dividends	149,953 00
Other disbursements: Incidentals, $29,947.96; insurance, $738.99; exchange, $165.08; traveling expenses, $16,025.97; development, $8,889.24; Surety Association of America, $2,467.29; bonded attorneys, $549.18; bills of lading, $257.15	59,040 86
Agents' balances charged off	526 53
Loss on sale or maturity of ledger assets	5,452 19
Total disbursements	$2,770,885 09
Balance	$6,457,532 35

LEDGER ASSETS.

Book value of real estate	$163,553 70
Mortgage loans on real estate, first liens, $9,700.00; other than first, $3,615.60	13,315 60
Book value of bonds and stocks (Schedule "D"): Bonds, $3,135,797.79; stocks, $1,342,531.38	4,478,329 17
Cash in offices	48,261 18
Deposits in trust companies and banks not on interest	76,212 71
Deposits in trust companies and banks on interest	463,401 26

Gross premiums in course of collection, on policies or renewals:

	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Fidelity	$138,010 99	$61,655 19	
Surety	323,784 52	225,426 12	
Burglary and theft	94,646 60	10,466 00	
Totals	$556,442 11	$297,547 31	853,989 42

Bills receivable		$14,202 87
Accounts receivable, $12,122.17; reinsurance due on losses paid, $67,684.51	$79,806 68	
Advance on contracts, $84,576.80; advance, railroad inspection, $13,981.89	98,558 69	
Cash in City Chamberlain's office	15,000 00	
Cash in suspended banks, $94,296.79; excise rein-		

Amount brought forward		$6,457,532 35

Non-Ledger Assets.

Interest due and accrued on:		
Mortgages	$499 07	
Bonds	35,600 50	
Bank balances (see Schedule "N")	2,920 41	
		39,019 98
Tax exemption on bonds ½ of 1 per cent on $300,000		1,500 00
Gross assets		$6,498,052 33

Deduct Assets Not Admitted.

Accounts receivable, $11,622.17; reinsurance due on losses paid, $48,645.42	$60,267 59	
Bills receivable, $14,202.87; suspended items, $14,929.71	29,132 58	
Advance on contracts, $13,674.36; cash in suspended banks, $34,296.79	47,971 15	
Premiums in course of collection written prior to October 1, 1911	297,547 31	
Cash in company's office, $7,567.65; stocks and bonds, $66,985.00	74,552 65	
		509,471 28
Total admited assets		$5,988,581 05

LIABILITIES.

Losses and claims:		
Fidelity—Reported or in process of adjustment, $104,046.51; resisted, $128,897.15; deduct reinsurance, $50,184.58; net unpaid claims except liability claims, $182,759.08; estimated expense of investigation and adjustment of unpaid claims, $7,310.36		$190,069 44
Surety—Reported or in process of adjustment, $399,469.96; resisted, $268,211.65; deduct reinsurance, $36,318.73; net unpaid claims except liability claims, $631,362.88; estimated expense of investigation and adjustment of unpaid claims, $35,254.52		656,617 40
Burglary and theft—Reported or in process of adjustment, $15,021.72; resisted, $16,507.43; deduct reinsurance, $2,409.30; net unpaid claims except liability claims, $29,119.85; estimated expense of investigation and adjustment of unpaid claims, $1,164.79		30,284 64
Total unpaid claims and expenses of settlement		$876,971 48
Unearned premiums at 50 per cent on risks running one year or less	$1,421,791 01	
Unearned premiums, pro rata on risks running more than one year	421,278 01	
Total unearned premiums		1,843,069 02
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Fidelity, $27,602.20; surety, $64,756.90; burglary and theft, $18,929.32		111,288 42
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		8,509 91
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		50,000 00
Dividends declared and unpaid to stockholders		45,065 00
Return premiums		8,412 02
Reinsurance		16,653 91
Advance premiums (100 per cent)		7,240 22
Other liabilities: Empire State Surety Company, $5,000.00; bond and mortgage account, $8,500.00; Munich Reinsurance Company (real estate account), $189.90		13,689 90
Less liabilities secured by special deposits: Unearned premiums, $66,558.67; unpaid losses, $16,227.95.		
Total amount of all liabilities except capital		$2,980,899 88

Capital actually paid up in cash	$1,500,000 00	
Surplus over all liabilities	1,507,681 17	
Surplus as regards policyholders		3,007,681 17
Total liabilities		$5,988,581 05

EXHIBIT OF PREMIUMS.

	Surety.	Fidelity.	Burglary and theft.
In force December 31, 1910	$1,686,957 76	$1,027,016 45	$564,955 02
Written or renewed during the year	2,278,035 01	1,624 331 04	632,101 56
Totals	$3,964,992 77	$2,651,347 49	$1,197,056 58
Deduct expirations and cancellations	1,927,168 06	1,512,736 49	527,461 21
Balance	$2,037,824 71	$1,138,611 00	$669,595 37
Deduct reinsured policies	205,999 67	31,427 22	90,741 11
Net in force December 31, 1911	$1,831,825 04	$1,107,183 78	$578,854 26
Amount at risk December 31, 1911	347,039,708 00	353,661,444 00	

Total dividends declared from organization: Cash, $695,000.00; stock, $500,000.00	$1,195,000 00
Total losses incurred during the year (less reinsurance)	949,703 47

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Fidelity	$70,779 07	$14,229 32
Surety	85,693 52	8,497 39
Burglary and theft	13,692 26	3,859 10
Totals	$170,164 85	$26,585 81

NEW AMSTERDAM CASUALTY COMPANY.

No. 1 Liberty street, New York City, New York.

(Incorporated December 31, 1898. Commenced business in California, 1899.)

W. F. Moore, President. Geo. E. Taylor, Secretary.

Agent for service in California: Ashley R. Faull, San Francisco.

CAPITAL.

Capital stock paid up in cash	$314,400 00	
Amount of ledger assets December 31st of previous year		$1,154,368 42

INCOME.

Accident—Gross premiums written and renewed during the year, $210,380.04; deduct reinsurance, $7,729.72; return premiums on policies canceled, $6,529.87; premiums on policies not taken, $42,334.14: Total deductions, $56,593.73	$153,786 31
Health—Gross premiums written and renewed during the year, $80,122.87; deduct return premiums on policies canceled, $2,622.70; premiums on policies not taken, $18,944.51: Total deductions, $21,567.21	58,555 66
Liability—Gross premiums written and renewed during the year, $793,033.81; deduct reinsurance, $7,096.86; return premiums on policies canceled, $31,183.74; premiums on policies not taken, $229,828.15: Total deductions, $268,108.75	524,925 06

Amount brought forward		$847,267 03
Plate glass—Gross premiums written and renewed during the year, $183,352.79; deduct return premiums on policies canceled. $4,696.08; premiums on policies not taken, $49,365.37: Total deductions, $54,061.45		129,291 34
Burglary and theft—Gross premiums written and renewed during the year, $182,852.94; deduct reinsurance, $13,920.12; return premiums on policies canceled, $13,771.66; premiums on policies not taken, $32,940.51: Total deductions, $60,632.29		122,220 65
Workmen's collective—Gross premiums written and renewed during the year, $3,524.06; deduct premiums on policies not taken, $273.61		3,250 45
Total net premiums		$992,029 47
Interest on mortgage loans	$7,961 94	
Bonds and dividends on stocks, $31,113.67; from other sources, $1,359.93	32,473 60	
Total interest and rents		40,435 54
Profit on sale or maturity of ledger assets: Stocks		675 00
Total income		$1,033,140 01
Sum		$2,187,508 43

DISBURSEMENTS.

Accident—Gross amount paid for losses, $62,174.42; deduct reinsurance, $1,292.96	$60,881 46
Health	27,450 88
Liability	253,236 69
Plate glass—Gross amount paid for losses, $91,918.82; deduct salvage, $22,231.94	69,686 88
Burglary and theft—Gross amount paid for losses, $45,465.66; deduct reinsurance, $2,387.79; salvage, $1,334.98: Total deductions, $3,722.27	41,742 89
Workmen's collective	1,190 14
Total net amount paid policyholders for losses	$454,188 94
Investigation and adjustment of claims	39,315 13
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	261,683 43
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	77,108 91
Salaries, traveling and all other expenses of agents not paid by commissions	57,470 33
Medical examiners' fees and salaries	725 00
Inspections (other than medical and claim)	9,447 55
Rents	11,725 84
State taxes on premiums	11,827 18
Insurance Department licenses and fees	3,824 43
All other licenses, fees and taxes	454 76
Legal expenses	6,323 73
Advertising	996 38
Printing and stationery	17,028 20
Postage, telegraph, telephone and express	9,489 88
Furniture and fixtures	2,178 73
Stockholders for interest or dividends	25,152 00
Other disbursements: Salaries and traveling expenses of pay roll auditors, $9,829.07; exchange, $519.67; miscellaneous, $6,682.94; profit and loss, $19.88	17,051 56
Total disbursements	$1,005,991 79
Balance	$1,181,516 64

LEDGER ASSETS.

Mortgage loans on real estate, first liens			$160,500 00
Book value of bonds and stocks			778,229 70
Cash in office			5,281 00
Deposits in trust companies and banks not on interest			4,626 01
Deposits in trust companies and banks on interest			42,359 54
Gross premiums in course of collection on policies or renewals:			
	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Accident	$25,737 54	$14 00	
Health	11,860 64		
Liability	101,350 58		
Plate glass	25,841 10		
Burglary and theft	24,124 26		
Workmen's collective	81 25		
Totals	$188,995 37	$14 00	189,009 37
Agents' balances			1,511 02
Ledger assets as per balance			$1,181,516 64

Non-Ledger Assets.

Interest due and accrued on:		
Mortgages	$2,031 70	
Bonds	5,518 32	
Bank balances	8 34	
		7,558 36
Gross assets		$1,189,075 00

Deduct Assets Not Admitted.

Premiums in course of collection written prior to October 1, 1911	$14 00	
Book value of ledger assets over market value: Stocks and bonds, $48,130.95; agents' balances, $1,511.02	49,641 97	
Total		49,655 97
Total admitted assets		$1,139,419 03

LIABILITIES.

Losses and claims:		
Accident—Reported or in process of adjustment, $13,285 47; resisted, $2,377.50; deduct reinsurance, $520.00; net unpaid claims, except liability claims, $15,142.97; estimated expense of investigation and adjustment of unpaid claims, $807.03		$15,950 00
Health—Reported or in process of adjustment, $5,128.48; net unpaid claims except liability claims, $5,128.48; estimated expense of investigation and adjustment of unpaid claims. $191.52		5,320 00
Plate glass—Reported or in process of adjustment, $2,991.30; resisted, $195.00; net unpaid claims except liability claims. $3,186.30; estimated expense of investigation and adjustment of unpaid claims, $81.70		3,268 00
Burglary and theft—Reported or in process of adjustment, $9,541.12; resisted, $1,286.55; deduct reinsurance, $612.50; net unpaid claims except liability claims, $10,215.17; estimated expense of investigation and adjustment of unpaid claims, $522.33		10,737 50
Workmen's collective—Reported or in process of adjustment		680 00
Net unpaid claims, except liability claims		$35,955 50
Special reserve for unpaid liability losses		170,749 00
Total unpaid claims and expenses of settlement		$206,704 50
Unearned premiums at 50 per cent on risks running one year or less	$420,601 70	
Unearned premiums, pro rata on risks running more		

Amount brought forward		$206.704 50
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident, $8.228.60; health, $3.807.26; liability, $23.309.00; plate glass, $8,010.74; burglary and theft, $7,237.28; workmen's collective, $20.32		50,613 24
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		1,000 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		11,589 76
Reinsurance		2,847 40
Advance premiums (100 per cent)		541 46
Total amount of all liabilities except capital		$753,087 04
Capital actually paid up in cash	$314,400 00	
Surplus over all liabilities	71,931 99	
Surplus as regards policyholders		386,331 99
Total liabilities		$1,139,419 03

EXHIBIT OF PREMIUMS.

	Accident.	Health.
In force December 31, 1910	$140,404 90	$48,548 83
Written or renewed during the year	210,380 04	80,122 87
Totals	$350.784 94	$128.671 70
Deduct expirations and cancellations	196.825 72	72,654 57
Balance	$153,959 22	$56,017 13
Deduct reinsured policies	2,382 90	
Net in force December 31, 1911	$151,576 32	$56,017 13
	Liability..	Plate glass.
In force December 31, 1910	$411,683 15	$115,466 01
Written or renewed during the year	793,033 81	183,352 79
Totals	$1,204,716 96	$298,798 80
Deduct expirations and cancellations	750,974 44	167,309 29
Balance	$453,742 52	$131,489 51
Deduct reinsured policies	5,673 04	
Net in force December 31, 1911	$448,069 48	$131,489 51
	Burglary and theft.	Workmen's collective.
In force December 31, 1910	$184.820 37	$3,993 26
Written or renewed during the year	182,852 94	3,524 06
Totals	$367,673 31	$7,517 32
Deduct expirations and cancellations	163.523 43	5,570 93
Balance	$204.149 88	$1.946 39
Deduct reinsured policies	24,568 96	
Net in force December 31, 1911	$179,580 92	$1,946 39

BUSINESS IN CALIFORNIA DURING THE YEAR.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Accident	$4,485 92	$2,032 00
Health	846 53	420 79
Liability	65.242 98	31.759 99
Plate glass	5.614 27	1.410 84
Burglary and theft	4,574 06	4,565 18
Workmen's collective	716 23	71 00
Totals	$81,479 99	$40.259 80

NEW JERSEY FIDELITY AND PLATE GLASS INSURANCE COMPANY.

No. 271 Market street, Newark, New Jersey.

(Incorporated April 21, 1868. Commenced business in California April 10, 1905.)

Samuel C. Hoagland, President. Harry C. Hedden, Secretary.

Agent for service in California: C. H. Ward, San Francisco.

CAPITAL.

Capital stock paid up in cash	$300,000 00	
Amount of ledger assets December 31st of previous year		$649,553 37

INCOME.

Accident—Gross premiums written and renewed during the year, $20,932.73; deduct reinsurance, $1,739.45; return premiums on policies canceled, $1,062.81; premiums on policies not taken, $2,012.98: Total deductions, $4,815.24		$16,117 49
Health—Gross premiums writen and renewed during the year, $2,605.00; deduct reinsurance, $132.12; return premiums on policies canceled, $134.20; premiums on policies not taken, $310.53: Total deductions, $576.85		2,028 75
Plate glass—Gross premiums written and renewed during the year, $467,817.57; deduct reinsurance, $536.34; return premiums on policies canceled, $25,517.45; premiums on policies not taken, $43,953.54: Total deductions, $70,007.33		397,810 24
Burglary and theft—Gross premiums written and renewed during the year, $102,104.47; deduct reinsurance, $8,047.98; return premiums on policies canceled, $7,510.24; premiums on policies not taken, $12,331.58: Total deductions, $27,889.80		74,214 67
Total net premiums		$490,171 15
Policy fees required or represented by applications		1,092 00
Interest on mortgage loans	$19,016 60	
Bonds and dividends on stocks, $6,532.78; from other sources, $250.65	6,783 43	
Total interest and rents		25,800 03
Agents' balances previously charged off		49 82
Total income		$517,113 00
Sum		$1,166,666 37

DISBURSEMENTS.

Accident—Gross amount paid for losses, $1,866.27; deduct reinsurance, $254.49		$1,611 78
Health—Gross amount paid for losses, $190.30; deduct reinsurance, $55.42		134 88
Plate glass—Gross amount paid for losses, $172,282.49; deduct reinsurance, $1,337.06		170,945 43
Burglary and theft—Gross amount paid for losses, $31,957.50; deduct reinsurance, $5,436.90		26,520 60
Total net amount paid policyholders for losses		$199,212 69
Investigation and adjustment of claims		763 91
Policy fees retained by agents		1,092 00
Commissions or brokerage to agents (less amount received on return premiums and reinsurance)		163,800 27
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees		29,871 50

Salaries, traveling and all other expenses of agents not paid by

Amount brought forward	$407,681 20
Rents	3,842 56
Taxes on real estate	40 19
State taxes on premiums	7,193 20
Insurance Department licenses and fees	3,808 99
All other licenses, fees and taxes	2,030 16
Legal expenses	196 93
Advertising	1,185 00
Printing and stationery	3,258 86
Postage, telegraph, telephone and express	4,077 91
Furniture and fixtures	625 00
Stockholders for interest or dividends	18,000 00
General expenses	5,423 23
Total disbursements	$457,390 23
Balance	$709,376 14

LEDGER ASSETS.

Book value of real estate			$5,404 15
Mortgage loans on real estate, first liens			389,000 00
Book value of bonds and stocks			172,934 76
Cash in office			4,453 20
Deposits in trust companies and banks not on interest			13,788 26
Deposits in trust companies and banks on interest			17,179 10
Gross premiums in course of collection on policies or renewals:			
	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Accident	$3,253 57	$199 50	
Health	325 29		
Plate glass	75,789 02	9,188 91	
Burglary and theft	16,756 17	453 55	
Totals	$96,124 05	$9,841 96	105,966 01
Ledger assets as per balance			$708,725 48

Non-Ledger Assets.

Interest due and accrued on:		
Mortgages	$4,548 76	
Bonds	2,002 92	
		6,551 68
Gross assets		$715,277 16

Deduct Assets Not Admitted.

Premiums in course of collection written prior to October 1, 1911	$9,841 96	
Depreciation in bonds	5,584 76	
Depreciation in stock	350 00	
Total		15,776 72
Total admitted assets		$699,500 44

LIABILITIES.

Losses and claims:	
Accident—Adjusted, $140.00; reported or in process of adjustment, $9,155.00; deduct reinsurance, $4,212.50; net unpaid claims except liability claims, $5,082.50; estimated expense of investigation and adjustment of unpaid claims, $406.60	$5,489 10
Health—Adjusted, $17.14; reported or in process of adjustment, $435.00; net unpaid claims except liability claims, $452.14; estimated expense of investigation and adjustment of unpaid claims, $36.17	488 31

Plate glass—Reported or in process of adjustment		$3,462 39
Burglary and theft—Adjusted, $480.00; reported or in process of adjustment, $5,625.50; resisted, $5,756.49; deduct reinsurance. $2,688.48; net unpaid claims except liability claims, $9,173.51; estimated expense of investigation and adjustment of unpaid claims, $733.88		9,907 39
Net unpaid claims except liability claims		$19.347 19
Unearned premiums at 50 per cent on risks running one year or less	$241,525 45	
Unearned premiums, pro rata on risks running more than one year	10.131 88	
Total unearned premiums		251,657 33
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident, $1,130.69; health, $112.51; surety, $25,454.38; plate glass, $5,665.86		32,363 44
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		6,989 21
Total amount of all liabilities except capital		$310,357 17
Capital actually paid up in cash	$300,000 00	
Surplus over all liabilities	89.143 27	
Surplus as regards policyholders		389,143 27
Total liabilities		$699,500 44

EXHIBIT OF PREMIUMS.

	Accident.	Health.
In force December 31, 1910	$653 32	------------
Written or renewed during the year	20,932 73	$2,605 60
Totals	$21,586 05	$2,605 60
Deduct expirations and cancellations	5,591 43	448 72
Balance	$15,994 62	$2,156 88
Deduct reinsured policies	1,606 11	118 00
Net in force December 31, 1911	$14,388 51	$2,038 88

	Plate glass.	Burglary and theft.
In force December 31, 1910	$345,684 17	$82,259 96
Written or renewed during the year	467,817 57	102,104 47
Totals	$813,502 74	$184,364 43
Deduct expirations and cancellations	412,962 11	90,369 00
Balance	$400,540 63	$93,995 43
Deduct reinsured policies	525 90	8,911 80
Net in force December 31, 1911	$400,014 73	$85.083 63

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Accident	$732 10	------------
Health	39 00	------------
Plate glass	5,564 40	$1,581 54
Burglary and theft	1,780 42	882 70
Totals	$8,115 92	$2,464 24

NEW YORK PLATE GLASS INSURANCE COMPANY.

Maiden Lane and William street, New York City, New York.

(Incorporated, 1891. Commenced business in California May 6, 1891.)

MAJOR A. WHITE, President. G. CARROLL FRENCH, Secretary.

Agent for service in California: J. G. JOHNSTON, San Francisco.

CAPITAL.

Capital stock paid up in cash	$200,000 00	
Amount of ledger assets December 31st of previous year		$982,098 68

INCOME.

Plate glass—Gross premiums written or renewed during the year, $807,813.15; deduct reinsurance, $1,766.51; return premiums on policies canceled, $100,546.41; premiums on policies not taken, $72,886.44: Total deductions, $175,199.36	$632,613 79
Bonds and dividends on stocks, $31,468.84; from other sources, $918.03	32,386 87
Agents' balances previously charged off	257 29
Profit on sale or maturity of ledger assets	6,368 58
Total income	$671,626 53
Sum	$1,653,725 21

DISBURSEMENTS.

Plate glass—Gross amount paid for losses, $308,568.02; deduct salvage, $11,570.13	$296,997 89
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	217,115 01
Salaries, fees and all other compensation of officers, directors, trustees and home office employees	60,576 05
Salaries, traveling and all other expenses of agents not paid by commissions	4,717 11
Rents	10,092 41
State taxes on premiums	7,549 18
Insurance Department licenses and fees	7,549 18
All other licenses, fees and taxes	752 21
Legal expenses	330 86
Advertising	1,223 15
Printing and stationery	2,593 55
Postage, telegraph, telephone and express	3,254 22
Furniture and fixtures	2,767 44
Stockholders for interest or dividends	32,000 00
Traveling expenses	3,206 19
Underwriters' Association	2,292 10
Sundry office expenses	1,646 22
Agents' balances charged off	1,319 50
Loss on sale or maturity of ledger assets	3,878 25
Total disbursements	$659,383 07
Balance	$994,342 14

LEDGER ASSETS.

Book value of bonds and stocks	$792,198 97
Cash in office	4,056 04
Deposits in trust companies and banks on interest	49,935 14
Gross premiums in course of collection on policies or renewals: Plate glass—Issued on or after October 1, 1911, $145,758.49; issued prior to October 1, 1911, $2,393.50	148,151 99
Ledger assets as per balance	$994,342 14

Amount brought forward		$994,342 14

Non-Ledger Assets.

Interest due and accrued on bonds		2,291 50
Gross assets		$996,633 64

Deduct Assets Not Admitted.

Premiums in course of collection written prior to October 1, 1911	$2,393 50	
Book value of ledger assets over market value: Bonds and stocks	58,513 97	
		60,907 47
Total admitted assets		$935,726 17

LIABILITIES.

Losses and claims: Plate glass—Adjusted, $10,990.54; reported in process of adjustment, $5,211.00; net unpaid claims except liability claims		$16,201 54
Unearned premiums at 50 per cent on risks running one year or less	$310,691 22	
Unearned premiums, pro rata on risks running more than one year	22,160 20	
Total unearned premiums		332,851 42
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Plate glass		47,178 29
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		1,000 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		4,000 00
Dividends declared and unpaid to stockholders		8,000 00
Total amount of all liabilities except capital		$409,231 25
Capital actually paid up in cash	$200,000 00	
Surplus over all liabilities	326,494 92	
Surplus as regards policyholders		526,494 92
Total liabilities		$935,726 17

EXHIBIT OF PREMIUMS.

	Plate glass.
In force December 31, 1910	$630,268 90
Written or renewed during the year	807,813 15
Totals	$1,438,082 05
Deduct expirations and cancellations	771,463 68
Net in force December 31, 1911	$666,618 37

Total dividends declared from organization: Cash, $295,500.00; stock, $100,000.00	$395,500 00
Total losses incurred during the year (less reinsurance)	291,470 58

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

Gross premiums less return premiums on risks written or renewed during the year: Plate glass	$14,290 40
Gross losses paid	6,636 44

NORTH AMERICAN ACCIDENT INSURANCE COMPANY.

No. 209 South La Salle street, Chicago, Illinois.

(Incorporated May 13, 1886. Commenced business in California July 6, 1900.)

E. C. WALLER, President. A. E. FORREST, Secretary.

Agent for service in California: J. L. DUNSCOMB, San Francisco.

CAPITAL.

Capital stock paid up in cash	$200,000 00	
Amount of ledger assets December 31st of previous year		$724,501 50

INCOME.

Accident—Gross premiums written and renewed during the year, $1,129,295.99; deduct reinsurance, $6,898.22; return premiums on policies canceled, $5,146.45; premiums on policies not taken, $53,043.23: Total deductions, $65,087.90		$1,064,208 09
Interest on mortgage loans, $8,302.61; collateral loans, $2,690.89	$10,993 50	
Bonds and dividends on stocks, $20,667.36; from other sources, $840.21	21,507 57	
Total interest		32,501 07
Agents' balances previously charged off		1,017 20
Profit on sale or maturity of ledger assets		2,000 00
Total income		$1,352,046 36
Sum		$2,076,547 86

DISBURSEMENTS.

Accident—Gross amount paid for losses, $401,465.85; deduct reinsurance, $889.16		$400,576 69
Investigation and adjustment of claims		5,215 78
Policy fees waived or retained by agents		252,320 00
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)		394,884 02
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees		96,793 38
Salaries, traveling and all other expenses of agents not paid by commissions		41,412 57
Medical examiners' fees and salaries		2,896 00
Rents		19,319 69
State taxes on premiums		16,287 91
Insurance Department licenses and fees		14,183 71
All other licenses, fees and taxes		2,194 11
Legal expenses		1,281 08
Advertising		2,659 23
Printing and stationery		18,985 22
Postage, telegraph, telephone and express		16,461 00
Furniture and fixtures		3,199 56
Stockholders for interest or dividends		30,000 00
Traveling expense	$14,744 90	
Bank exchange	1,108 11	
Incidental expenses (statement attached)	5,773 10	
Hospital fees	4,934 54	
		26,560 65
Agents' balances charged off		2,487 77
Loss on sale or maturity of ledger assets		20 00
Total disbursements		$1,347,738 37
Balance		$728,809 49

LEDGER ASSETS.

Mortgage loans on real estate		$152,200 00
Loans secured by pledge of bonds, stocks or other collaterals		42,400 00
Book value of bonds and stocks		459,206 25
Cash in office		2,422 68
Deposits in trust companies and banks not on interest		10,942 44
Deposits in trust companies and banks on interest		27,843 49
Gross premiums in course of collection on policies or renewals: Accident—Issued on or after October 1, 1911, $24,545.28; issued prior to October 1, 1911, $1,964.56		26,509 84
Bills receivable	$6,200 58	
Cash in branch offices, for current use	1,084 21	
		7,284 79
Ledger assets as per balance		$728,809 49

Non-Ledger Assets.

Interest due and accrued on:		
Mortgages	$2,309 30	
Bonds	7,363 30	
Collateral loans	230 38	
		9,902 98
Furniture and fixtures		11,000 00
Gross assets		$749,712 47

Deduct Assets Not Admitted.

Bills receivable, $6,200.58; furniture and fixtures, $11,000.00	$17,200 58	
Premiums in course of collection written prior to October 1, 1911	1,964 56	
Overdue and accrued interest on bonds in default	3,500 00	
Book value of ledger assets over market value	1,723 75	
Total		24,388 89
Total admitted assets		$725,323 58

LIABILITIES.

Losses and claims: Accident—Reported or in process of adjustment, $40,941; resisted, $9,715; net unpaid claims except liability claims, $50,656; estimated expense of investigation and adjustment of unpaid claims, $500.00		$51,156 00
Unearned premiums at 50 per cent on risks running one year or less	$166,167 08	
Unearned premiums, pro rata on risks running more than one year	4,200 00	
Total unearned premiums		170,367 08
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident		7,363 58
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		4,005 87
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		16,000 00
Advance premiums (100 per cent)		30,624 43
Total amount of all liabilities except capital		$279,516 96
Capital actually paid up in cash	$200,000 00	
Surplus over all liabilities	245,806 62	
Surplus as regards policyholders		445,806 62
Total liabilities		$725,323 58

EXHIBIT OF PREMIUMS.

	Accident.
In force December 31, 1910	$221,693 00
Written or renewed during the year	1,130,293 00
Totals	$1,351,986 00
Deduct expirations and cancellations	1,008,760 00
Balance	$343,226 00
Deduct reinsured policies	6,317 00
Net in force December 31, 1911	$336,909 00

Total dividends declared from organization: Cash, $220,000.00; stock, $100,000.00	$320,090 00
Total losses incurred during the year (less reinsurance)	401,174 96

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

Gross premiums, less return premiums, on risks written or renewed during the year: Accident	$60,321 33
Gross losses paid	32,338 65

PACIFIC COAST CASUALTY COMPANY.

420 Merchants' Exchange Building, San Francisco, California.

(Incorporated Oct. 20, 1902. Commenced business in California Nov. 22, 1902.)

E. F. GREEN, President. JOY LICHTENSTEIN, Secretary.

CAPITAL.

Capital stock paid up in cash	$400,000 00	
Amount of ledger assets December 31st of previous year		$1,164,528 92

INCOME.

Accident and health—Gross premiums written and renewed during the year, $38,741.11; deduct reinsurance, $11.32; return premiums on policies canceled, $265.50; premiums on policies not taken, $27.25: Total deductions, $304.07	$38,437 04
Liability—Gross premiums written and renewed during the year, $652,434.59; deduct reinsurance, $1,803.84; return premiums on policies canceled, $70,108.76; premiums on policies not taken, $146,161.98: Total deductions, $218,074.58	434,360 01
Fidelity—Gross premiums written and renewed during the year, $16,959.88; deduct reinsurance, $297.50; return premiums on policies canceled, $368.01; return premiums on policies not taken, $881.58: Total deductions, $1,547.09	15,412 79
Surety—Gross premiums written and renewed during the year, $163,563.17; deduct reinsurance, $8,503.24; return premiums on policies canceled, $2,360.03; premiums on policies not taken, $5,145.82: Total deductions, $16,009.09	147,554 08
Plate glass—Gross premiums written and renewed during the year, $37,822.04; deduct return premiums on policies canceled, $1,877.78; premiums on policies not taken, $5,032.23: Total deductions, $6,910.01	30,812 03
Burglary and theft—Gross premiums written and renewed during the year, $29,972.92; deduct reinsurance, $1,145.11; return premiums on policies canceled, $2,163.72; premiums on policies not taken, $3,827.24: Total deductions, $7,136.07	22,836 85
Automobile property damage—Gross premiums written and renewed during the year, $57,194.77; deduct return premiums on policies canceled, $7,044.55; premiums on policies not taken, $9,419.49: Total deductions, $16,464.04	40,730 73

Workmen's collective—Gross premiums written and renewed during the year, $52,518.90; deduct return premiums on policies canceled, $354.16; premiums on policies not taken, $5,658.59: Total deductions, $6,012.75		$46,506 15
Total net premiums		$776,649 68
Interest on mortgage loans, $6,472.00; collateral loans, $40.83	$6,512 83	
Bonds, $33,472.50; from other sources, $2,329.54	35,802.04	
		42,314 87
Advance premiums		3,347 08
Agents' balances previously charged off		1,108 02
Increase in book value of ledger assets		458 18
Total income		$823,877 83
Sum		$1,988,406 75

DISBURSEMENTS.

Accident and health—Gross amount paid for losses	$9,186 92
Liability—Gross amount paid for losses, $159,949.53; deduct salvage, $3,072.50	156,877 03
Fidelity—Gross amount paid for losses, $417.43; deduct salvage, $371.00	46 43
Surety—Gross amount paid for losses, $11,827.70; deduct salvage, $1,927.04	9,900 66
Plate glass—Gross amount paid for losses, $14,001.56; deduct salvage, $32.77	13,968 79
Burglary and theft—Gross amount paid for losses, $10,289.29; deduct reinsurance, $584.65; salvage, $20.00: Total deductions, $604.65	9,684 64
Automobile property damage—Gross amount paid for losses, $17,517.75; deduct salvage, $269.70	17,248 05
Workmen's collective	13,417 09
Total net amount paid policyholders for losses	$230,329 61
Investigation and adjustment of claims	68,430 32
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	260,278 53
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	55,321 37
Salaries, traveling and all other expenses of agents not paid by commissions	12,709 87
Inspections (other than medical and claim)	2,476 05
Rents	4,315 00
State taxes on premiums	6,548 96
Insurance Department licenses and fees	2,417 10
All other licenses, fees and taxes	441 80
Legal expenses	2,032 20
Advertising	2,899 59
Printing and stationery	11,811 15
Postage, telegraph, telephone and express	4,911 12
Furniture and fixtures	4,064 95
Stockholders for interest or dividends	32,000 00
Home office expense	7,132 62
Office expense Excise Bureau, New York	1,301 31
Agents' balances charged off	9,292 15
Decrease in book value of ledger assets	564 02
Total disbursements	$719,277 72
Balance	$1,269,129 03

LEDGER ASSETS.

Mortgage loans on real estate, first liens			$116,000 00
Book value of bonds			712,559 46
Cash in office			29,109 23
Deposits in trust companies and banks not on interest			13,105 71
Deposits in trust companies and banks on interest			142,395 76
Gross premiums in course of collection on policies or renewals:			
	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Liability	$147,243 56	$16,859 52	
Fidelity	2,326 62	1,049 39	
Surety	17,071 59	12,064 42	
Plate glass	7,978 53		
Burglary and theft	3,552 14	2,624 79	
Automobile property damage	12,381 63		
Workmen's collective		13,954 59	2,015 41
Totals	$204,508 66	$34,613 53	239,122 19
Due by city of San Francisco under contract			16,736 68
Ledger assets as per balance			$1,269,129 03

Non-Ledger Assets.

Interest due and accrued on:		
Mortgages	$670 31	
Bonds	11,585 66	
Other assets	80 38	
		12,336 35
Furniture and fixtures, $4,155.42; printed matter and stationery, $8,290.58		12,446 00
Gross assets		$1,293,911 38

Deduct Assets Not Admitted.

Bills receivable, $100; furniture and fixtures, $4,155.42	$4,255 42	
Supplies, printed matter and stationery	8,290 58	
Premiums in course of collection written prior to October 1, 1911	34,613 53	
Book value of ledger assets over market value: Bonds, $12,842.28; deposit with Carnegie Trust Company, in hands of receiver, $2,396.47	15,238 75	
		62,398 28
Total admitted assets		$1,231,513 10

LIABILITIES.

Losses and claims:	
Fidelity—Estimated expense of investigation and adjustment of unpaid claims	$650 00
Surety—Reported or in process of adjustment, $11,760.17; estimated expense of investigation and adjustment of unpaid claims, $1,950.00	13,710 17
Plate glass—Adjusted, $1,806.17; reported or in process of adjustment, $1,837.60; net unpaid claims except liability claims, $3,643.77; estimated expense of investigation and adjustment of unpaid claims, $5.25	3,649 02
Burglary and theft—Adjusted, $2,698.12; reported or in process of adjustment, $900.00; net unpaid claims except liability claims, $3,598.12; estimated expense of investigation and adjustment of unpaid claims, $38.75	3,636 87
Automobile property damage—Adjusted, $3,820.40; reported or in process of adjustment, $2,122.50; resisted, $710.00; net unpaid claims except liability claims, $6,652.90; estimated expense of investigation and adjustment of unpaid claims, $69.67	6,722 57
Workmen's collective—Adjusted, $1,837.59; reported or in process of adjustment, $2,593.58; net unpaid claims except liability claims, $4,431.17; estimated expense of investigation and adjustment of unpaid claims, $96.82	4,527 99
Net unpaid claims, except liability claims	$32,896 62

Special reserve for unpaid liability losses	$105,288 23	
Voluntary reserve for unpaid liability losses	61,200 00	
Total unpaid claims and expenses of settlement		$199,384 85
Unearned premiums at 50 per cent on risks running one year or less	$267,394 52	
Unearned premiums, pro rata on risks running more than one year	22,212 91	
Total unearned premiums		289,607 43
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Liability, $49,604.77; fidelity, $781.16; surety, $5,916.87; plate glass, $3,143.58; burglary and theft, $1,353.44; automobile property damage, $3,988.19; workmen's collective, $4,864.13		69,652 14
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		5,122 07
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		12,551 47
Return premiums		4,000 21
Reinsurance		1,849 02
Advance premiums (100 per cent)		3,347 08
Interest paid in advance on mortgages Nos. 2 and 3		164 99
Total		$585,679 26
Capital actually paid up in cash	$400,000 00	
Surplus over all liabilities	245,833 84	
Surplus as regards policyholders		645,833 84
Total liabilities		$1,231,513 10

EXHIBIT OF PREMIUMS.

	Accident and health.	Liability.	Plate glass.
In force December 31, 1910	$1,524 60	$359,108 68	$30,827 35
Written or renewed during the year	38,741 11	652,434 59	37,722 04
Totals	$40,265 71	$1,011,543 27	$68,549 39
Deduct expirations and cancellations	35,936 73	677,366 74	37,744 03
Balance	$4,328 98	$334,176 53	$30,805 36
Deduct reinsured policies	11 32	2,501 30	
Net in force December 31, 1911	$4,317 66	$331,675 23	$30,805 36
	Surety.	Fidelity.	Burglary and theft.
In force December 31, 1910	$95,105 25	$5,063 31	$18,431 03
Written or renewed during the year	163,563 17	16,959 88	29,972 92
Totals	$258,668 42	$22,023 19	$48,403 95
Deduct expirations and cancellations	130,163 25	7,611 05	22,040 91
Balance	$128,505 17	$14,412 14	$26,363 04
Deduct reinsured policies	639 74	414 23	1,155 76
Net in force December 31, 1911	$116,865 43	$13,997 91	$25,207 28
		Automobile property.	Workmen's collective.
In force December 31, 1910		$21,066 87	$18,537 41
Written or renewed during the year		57,194 77	52,518 90
Totals		$78,261 64	$71,056 31
Deduct expirations and cancellations		40,593 66	48,449 01
Net in force December 31, 1911		$37,667 98	$22,607 30

Total dividends declared from organization: Cash	$132,000 00

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Accident and health	$18,786 96	$4,394 09
Liability	173,122 57	58,512 40
Fidelity	5,920 76	
Surety	23,281 49	583 69
Plate glass	6,764 37	1,197 26
Burglary and theft	4,504 74	2,354 25
Automobile property damage	3,496 87	602 40
Workmen's collective	30,443 13	11,893 79
Totals	$266,320 89	$79,537 88

PACIFIC MUTUAL INDEMNITY COMPANY OF CALIFORNIA.

Corner of Sixth and Olive streets, Los Angeles, California.

(Incorporated November 10, 1906. Commenced business in California April 1, 1907.)

GEO. I. COCHRAN, President. C. I. D. MOORE, Secretary.

CAPITAL.

Capital stock paid up in cash	$250,000 00	
Amount of ledger assets December 31st of previous year		$338,639 75

INCOME.

Accident—Gross premiums written and renewed during the year, $74,003.38; deduct reinsurance, $2,899.91; return premiums on policies canceled, $968.60; premiums on policies not taken, $13,422.80: Total deductions, $17,291.31		$56,712 07
Health—Gross premiums written and renewed during the year, $44,470.59; deduct reinsurance, $1,950.18; return premiums on policies canceled, $877.65; premiums on policies not taken, $18,889.64: Total deductions, $21,717.47		22,753 12
Total net premiums		$79,465 19
Policy fees required or represented by applications		2,750 00
Interest on mortgage loans	$12,705 30	
Bonds and dividends on stocks, $7,027.78; from other sources, $118.67	7,146 45	
Total interest and rents		19,851 75
Agents' balances previously charged off		11 02
Profit on sale or maturity of ledger assets		3,161 86
Total income		$105,239 82
Sum		$443,879 57

DISBURSEMENTS.

Accident—Gross amount paid for losses, $18,145.26; deduct reinsurance, $1,681.57	$16,463 69
Health—Gross amount paid for losses, $16,075.87; deduct reinsurance, $796.68	15,279 19
Total net amount paid policyholders for losses	$31,742 88
Investigation and adjustment of claims	53 00
Policy fees retained by agents	2,750 00
Commissions or brokerage to agents (less amounts received on return premiums and reinsurance)	27,906 16

Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	$2,525 00
Salaries, traveling and all other expenses of agents not paid by commissions	737 80
Medical examiners' fees and salaries	796 23
Inspections (other than medical and claim)	3 00
Rents	924 50
State taxes on premiums	964 02
Insurance Department licenses and fees	776 60
All other licenses, fees and taxes	306 18
Advertising	923 57
Printing and stationery	3,106 52
Postage, telegraph, telephone and express	837 29
Furniture and fixtures	22 50
Stockholders for interest or dividends	12,500 00
Other disbursements	255 89
Agents' balances charged off	586 13
Decrease in book value of ledger assets	144 26
Total disbursements	$87,861 53
Balance	$356,018 04

LEDGER ASSETS.

Mortgage loans on real estate, first liens			$254,500 00
Book value of bonds and stocks			88,000 00
Cash in course of transmission			309 86
Deposits in trust companies and banks not on interest			1,633 04
Deposits in trust companies and banks on interest			318 20
Gross premiums in course of collection on policies and renewals:			
	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Accident	$8,414 95	$106 88	
Health	2,699 49	35 62	
Totals	$11,114 44	$142 50	11,256 94
Ledger assets as per balance			$356,018 04

Non-Ledger Assets.

Interest due and accrued on:		
Mortgages	$2,416 01	
Bonds	1,341 67	
		3,757 68
Reinsurance due on account claims		40 62
Gross assets		$359,816 34

Deduct Assets Not Admitted.

Premiums in course of collection written prior to October 1, 1911	142 50
Total admitted assets	$359,673 84

LIABILITIES.

Losses and claims:	
Accident—Reported or in process of adjustment, $9,500.00; estimated expense of investigation and adjustment of unpaid claims, $100.00	$9,670 00
Health—Reported or in process of adjustment, $2,430.00; estimated expense of investigation and adjustment of unpaid claims, $100.00	2,530 00
Total unpaid claims and expenses of settlement	$12,200 00

Amount brought forward		$12.200 00
Unearned premiums at 50 per cent on risks running one year or less		31,022 59
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident, $2,953.18; health, $947.99		3.901 17
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		1,050 00
Advance premiums (100 per cent)		595 00
Total liabilities except capital		$48.768 76
Capital actually paid up in cash	$250,000 00	
Surplus over all liabilities	60,905 08	
Surplus as regards policyholders		310,905 08
Total liabilities		$359.673 84

EXHIBIT OF PREMIUMS.

	Accident.	Health.
In force December 31, 1910	$32,826 61	$23,521 22
Written or renewed during the year	74,003 38	44,470 59
Totals	$106,829 99	$67,991 81
Deduct expirations and cancellations	69,023 31	43,687 77
Balance	$37,806 68	$24,304 04
Deduct reinsured policies	65 54	----------
Net in force December 31, 1911	$37,741 14	$24,304 04

PACIFIC SURETY COMPANY.

First National Bank Building, San Francisco, California.

(Incorporated May 6, 1885. Commenced business in California August 4, 1885.)

C. H. CRAWFORD, President. C. E. LINAKER, Secretary.

CAPITAL.

Capital stock paid up in cash	$300,000 00	
Amount of ledger assets December 31st of previous year		$666.054 07
Net decrease of paid up capital during the year		53,041 00
Extended at		$613,013 07

INCOME.

Accident—Gross premiums written and renewed during the year, $40,215.00; deduct reinsurance, $2,235.58; return premiums on policies canceled, $5,417.91; premiums on policies not taken, $9,539.24: Total deductions, $17,192.73	$23,022 27
Liability—Gross premiums written and renewed during the year, $259,105.45; deduct reinsurance, $730.72; return premiums on policies canceled, $19,070.61; premiums on policies not taken, $38,306.68: Total deductions, $58,108.01	200,997 44
Fidelity—Gross premiums written or renewed during the year, $34,396.52; deduct reinsurance, $13,117.34; return premiums on policies canceled, $5,231.26; premiums on policies not taken, $4,325.78: Total deductions, $22,674.38	11,722 14
Surety—Gross premiums written and renewed during the year, $101,515.24; deduct reinsurance, $7,626.20; return premiums on policies canceled, $6,571.71; premiums on policies not taken, $7,569.26: Total deductions, $21,767.17	79.748 07

Plate glass—Gross premiums written or renewed during the year, $45,498.51; deduct return premiums on policies canceled, $1.820.15; premiums on policies not taken, $7,519.65: Total deductions, $9,339.80		36,158 71
Steam boiler—Gross premiums written and renewed during the year, $368.50; deduct reinsurance, $208.06; premiums on policies not taken, $120.00: Total deductions, $328.06		40 44
Burglary and theft—Gross premiums written and renewed during the year, $10,375.18; deduct reinsurance, $245.94; return premiums on policies canceled, $963.32; premiums on policies not taken, $2,202.81: Total deductions, $3,412.07		6,963 11
Medical defense—Gross premiums written and renewed during the year, $1,310.72; deduct return premiums on policies canceled, $42.40; premiums on policies not taken, $115.00: Total deductions, $157.40		1,153 32
Fly wheel—Gross premiums written and renewed during the year, $30.00; deduct reinsurance, $28.82		1 18
Automobile property damage—Gross premiums written and renewed during the year, $25,638.68; deduct return premiums on policies canceled, $4,992.86; premiums on policies not taken, $6,371.75: Total deductions, $11,364.61		14,274 07
Workmen's collective—Gross premiums written and renewed during the year, $679.62; deduct premiums on policies not taken, $379.62		300 00
Total net premiums		$374,380 75
Policy fees required or represented by application		293 55
Interest on mortgage loans, $5,676.85; collateral loans, $2,810.35	$8,487 20	
Bonds and dividends on stocks, $13,965.33; from other sources, $1,043.04	15,008 37	
Rents	463 37	
Total interest and rents		23,958 94
Surplus paid in by stockholders, including $56,242.00 transferred from capital		77,542 50
Suspense items—Credit, December 31, 1911, $2,291.33; credit, December 31, 1910, $1,818.84		472 49
Net profit on agents' contingent contracts, $1,375.62; certificate of character fees, $12.00		1,387 62
Return premiums allowed but not yet paid, $4,607.37; reinsurance premiums unpaid, $665.45		5,272 82
Profit on sale or maturity of ledger assets		33 86
Total income		$483,342 53
Sum		$1,096,355 60

DISBURSEMENTS.

Accident and health—Gross amount paid for losses, $8,480.99; deduct reinsurance, $246.39; salvage, $39.25: Total deductions, $285.64	$8,195 35
Liability—Gross amount paid for losses, $47,180.82; deduct salvage, $972.65	46,208 17
Fidelity—Gross amount paid for losses, $12,035.13; deduct salvage, $1,240.76	10,794 37
Surety—Gross amount paid for losses, $32,349.02; deduct salvage, $6,851.83	25,497 19
Plate glass—Gross amount paid for losses, $14,298.96; deduct salvage, $79.68	14,219 28
Burglary and theft—Gross amount paid for losses, $8,683.05; deduct salvage, $1,193.00	7,490 05
Automobile property damage—Gross amount paid for losses	6,206 93
Workmen's collective—Gross amount paid for losses	20 25

Amount brought forward	$118,631 59
Investigation and adjustment of claims	47,798 82
Policy fees retained by agents	263 06
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	117,444 49
Salaries, fees and all other compensation of officers, directors, trustees and home office employees	63,285 52
Salaries, traveling and all other expenses of agents not paid by commissions	2,587 71
Medical examiners' fees and salaries	14 00
Inspections (other than medical and claim)	449 70
Rents	8,555 55
Repairs and expenses (other than taxes) on real estate	258 69
Taxes on real estate	156 16
State taxes on premiums	4,403 97
Insurance Department licenses and fees	1,043 55
All other licenses, fees and taxes	413 91
Legal expenses	2,327 80
Advertising	4,147 93
Printing and stationery	5,270 77
Postage, telegraph, telephone and express	3,942 45
Sundry investment expenses	98 30
Traveling	5,986 34
General expense	2,425 16
Partial payments on subscriptions to capital stock, credit December 31, 1910, transferred to capital, 1911	326 25
Agents' balances charged off	7,908 36
Loss on sale or maturity of ledger assets	1,920 37
Total disbursements	$399,660 44
Balance	$696,695 16

LEDGER ASSETS.

Book value of real estate	$2,403 93
Mortgage loans on real estate: First liens, $89,450.00; other than first, $1,330.97	90,780 97
Loans secured by pledge of bonds, stocks or other collaterals	13,000 00
Book value of bonds and stocks: Bonds, $270,264.51; stocks, $37,795.00	308,059 51
Cash in office	4,818 20
Deposits in trust companies and banks not on interest	51,912 82
Deposits in trust companies and banks on interest	71,119 14

Gross premiums in course of collection on policies or renewals:

	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Accident	$5,039 55	$1,956 90	
Liability	62,390 09	19,411 83	
Fidelity	98 70	1,913 92	
Surety	6,692 15	19,841 05	
Plate glass	6,342 73	1,498 72	
Burglary and theft	1,569 66	115 00	
Medical defense	13 50	64 30	
Automobile property damage	5,045 80	2,043 12	
Totals	$87,192 18	$46,844 84	134,037 02

Furniture and fixtures, $9,620.38; agents' balances, $10,943.19	20,563 57
Ledger assets as per balance	$696,695 16

Non-Ledger Assets.

Interest due and accrued on:

Mortgages	$1,686 36	
Bonds	4,718 40	
Collateral loans	17 33	
Savings bank deposits	1,203 54	
		7,625 63
Gross assets		$704,320 79

Deduct Assets Not Admitted.

Furniture and fixtures	$9,620 38	
Premiums in course of collection written prior to October 1, 1911	46,844 84	
Book value of ledger assets over market value	21,908 69	
Total		78,373 91
Total admitted assets		$625,946 88

LIABILITIES.

Losses and claims:		
Accident—Reported or in process of adjustment,		$1,270 00
Fidelity—Reported or in process of adjustment, $473.00; resisted, $300.00; net unpaid claims except liability claims, $773.00; estimated expense of investigation and adjustment of unpaid claims, $100.00		873 00
Surety—Reported or in process of adjustment, $7,293.88; resisted, $8,000.00; net unpaid claims except liability claims, $15,293.88; estimated expense of investigation and adjustment of unpaid claims, $2,400.00		17,693 88
Plate glass—Reported or in process of adjustment		866 88
Burglary and theft—Resisted		750 00
Automobile property damage—Reported or in process of adjustment		470 00
Net unpaid claims except liability claims		$21,923 76
Special reserve for unpaid liability losses		28,409 53
Total unpaid claims and expenses of settlement		$50,333 29
Unearned premiums at 50 per cent on risks running one year or less	$138,026 18	
Unearned premiums, pro rata on risks running more than one year	7,304 30	
Total unearned premiums		145,330 48
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident, $1,483.88; liability, $14,487.11; fidelity, $24.92; surety, $1,340.13; plate glass, $1,936.98; burglary and theft, $456.59; medical defense, $405.00; automobile property damage, $940.13		20,673 69
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		2,701 41
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		5,000 00
Return premiums		3,455 53
Reinsurance		454 30
Advance premiums (100 per cent)		1,379 27
Other liabilities: Suspense items, $629.49; reserve for stockholders' liability, re California Safe Deposit and Trust Company (insolvent), $2,576.66		3,206 15
Total amount of all liabilities except capital		$232,534 22
Capital actually paid up in cash	$300,000 00	
Surplus over all liabilities	93,412 66	
Surplus as regards policyholders		393,412 66
Total liabilities		$625,946 88

EXHIBIT OF PREMIUMS.

	Accident.	Liability.
In force December 31, 1910	$21,125 82	$106,218 35
Written or renewed during the year	40,215 00	214,168 35
Totals	$61,342 82	$320,386 70
Deduct expirations and cancellations	40,618 12	183,566 62

	Plate glass.	Fly wheel.
In force December 31, 1910	$32,738 74	-----
Written or renewed during the year	45,495 53	$30 00
Totals	$78,234 27	$30 00
Deduct expirations and cancellations	43,494 49	-----
Balance	$34,739 78	$30 00
Deduct reinsured policies	-----	30 00
Net in force December 31, 1911	$34,739 78	-----

	Surety.	Fidelity.
In force December 31, 1910	$102,943 25	$37,560 44
Written or renewed during the year	101,515 24	34,396 52
Totals	$204,458 49	$71,956 96
Deduct expirations and cancellations	130,989 67	47,355 99
Balance	$73,468 82	$24,600 97
Deduct reinsured policies	1,645 87	21,015 16
Net in force December 31, 1911	$71,822 95	$3,585 81
Amount at risk December 31, 1911	10,568,857 00	3,090,272 00

	Steam boiler.	Burglary and theft.	Automobile property damage.
In force December 31, 1910	-----	$4,462 98	$2,265 05
Written or renewed during the year	$368 50	10,375 18	25,638 68
Totals	$368 50	$14,838 16	$27,903 73
Deduct expirations and cancellations	120 00	6,597 00	14,094 13
Balance	$248 50	$8,241 16	$13,809 60
Deduct reinsured policies	248 50	164 96	-----
Net in force December 31, 1911	-----	$8,076 20	$13,809 60

	Workmen's collective.	Medical defense.
In force December 31, 1910	-----	-----
Written or renewed during the year	$679 62	$1,310 72
Totals	$679 62	$1,310 72
Deduct expirations and cancellations	429 62	182 00
Net in force December 31, 1911	$250 00	$1,128 72

Total dividends declared from organization: Cash, $272,101.40; stock, $25,000.00	$297,101 40
Total losses incurred during the year (less reinsurance), except liability	75,903 64

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Accident	$18,584 66	$7,311 08
Liability	111,169 79	22,280 96
Fidelity	7,521 65	6,351 14
Surety	42,224 73	11,215 22
Plate glass	19,795 14	6,701 38
Steam boiler	40 44	-----
Burglary and theft	3,893 57	6,589 20
Medical defense	751 62	-----
Fly wheel	1 18	-----
Automobile property damage	8,421 09	2,035 44
Workmen's collective	300 00	20 25
Totals	$212,703 87	$62,504 67

PACIFIC TITLE INSURANCE COMPANY.

No. 420 Montgomery street, San Francisco, California.

(Incorporated June 23, 1906. Commenced business in California July 31, 1906.)

FRANK G. DRUM, President. MURRAY F. VANDALL, Secretary.

CAPITAL.

Capital stock paid up in cash	$154,500 00	
Amount of ledger assets December 31st of previous year		$227,685 09

INCOME.

Title—Gross premiums written and renewed during the year		$56,630 50
Interest on mortgage loans, $6,876.38; collateral loans, $8	$6,884 38	
Bonds and dividends on stocks, $1,834.09; from other sources, $2,304.90	4,138 99	
Total interest and rents		11,023 37
Reports on titles		16,631 50
Total income		$84,285 37
Sum		$311,970 46

DISBURSEMENTS.

Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	$2,258 90
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	35,128 23
Rents	6,900 79
State taxes on premiums	315 76
Insurance Department licenses and fees	30 00
All other licenses, fees and taxes	140 57
Legal expenses	5,431 50
Advertising	939 25
Printing and stationery	1,272 47
Stockkholders for interest and dividends	9,270 00
General expense	2,368 07
Fire insurance	20 00
Total disbursements	$64,075 54
Balance	$247,894 92

LEDGER ASSETS.

Mortgage loans on real estate, first liens	$112,292 60
Loans secured by pledge of bonds, stocks or other collaterals	4,850 00
Book value of bonds and stocks (Schedule "D")	20,730 00
Cash in office	77 55
Deposits in trust companies and banks not on interest	388 58
Deposits in trust companies and banks on interest	17,019 46
Gross premiums in course of collection on policies or renewals:	
Title—Issued on or after October 1, 1911	602 50
Bills receivable	1,148 60
Plant	77,250 00
Outstanding accounts	13,535 63
Ledger assets as per balance	$247,894 92

Non-Ledger Assets.

Amount brought forward		$250,394 92

Deduct Assets Not Admitted.

Loaned on company's own stock	$4,450 00	
Bills receivable, $1,148.60; furniture and fixtures, $2,500	3,648 60	
Total		8,098 60
Total admitted assets		$242,296 32

LIABILITIES.

Other liabilities: Reserve fund		$15,450 00
Capital actually paid up in cash	$154,500 00	
Surplus over all liabilities	72,346 32	
Surplus as regards policyholders		226,846 32
Total liabilities		$242,296 32

EXHIBIT OF PREMIUMS.

	Title.
In force December 31, 1910	$152,243 71
Written or renewed during the year	56,630 50
Net in force December 31, 1911	$208,874 21

Total dividends declared from organization: Cash	$16,995 00

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

Gross premiums less return premiums on risks written or renewed during the year: Title	$56,630 50

THE PENNSYLVANIA CASUALTY COMPANY.

Linden street and Jefferson avenue, Scranton, Pennsylvania.

(Incorporated September, 1899. Commenced business in California May, 1904.)

THOMAS E. JONES, President. GEORGE F. COAR, Secretary.

Agent for service in California: A. G. MASON, San Francisco.

CAPITAL.

Capital stock paid up in cash	$200,000 00	
Amount of ledger assets December 31st of previous year		$701,954 65

INCOME.

Accident—Gross premiums written and renewed during the year, $195,078.97; deduct reinsurance, $5,011.95; return premiums on policies canceled, $5,248.78; premiums on policies not taken, $25,955.05: Total deductions, $36,215.78	$158,863 19
Health—Gross premiums written and renewed during the year, $101,490.26; deduct reinsurance, $1,653.03; return premiums on policies canceled, $2,907.38; premiums on policies not taken, $14,393.24: Total deductions, $18,953.65	82,536 61
Liability—Gross premiums written and renewed during the year, $497,676.37; deduct reinsurance, $4,321.47; return premiums on policies cancelled, $41,297.08; premiums on policies not taken, $113,364.80: Total deductions, $158,983.35	338,693 02
Plate glass—Gross premiums written and renewed during the year, $147,861.67; deduct reinsurance, $388.03; return premiums on policies canceled, $6,275.78; premiums on policies not taken, $21,906.83: Total deductions, $28,570.64	119,291 03

Steam boiler—Gross premiums written and renewed during the year, $12,109.71; deduct reinsurance, $52.20; return premiums on policies canceled, $1,275.36; premiums on policies not taken, $2,215.27: Total deductions, $3,542.83		$8,566 88
Automobile property damage—Gross premiums written and renewed during the year, $7,805.54; deduct return premiums on policies canceled, $127.49; premiums on policies not taken, $2,368.32; Total deductions, $2,495.81		5,309 73
Workmen's collective—Gross premiums written and renewed during the year, $6,184.63; deduct return premiums on policies canceled, $262.92; premiums on policies not taken, $6,056.28: Total deductions, $6,319.20		134 57
Total net premiums		$713,125 89
Inspections		104 13
Interest on mortgage loans, $216.91; collateral loans, $891.67	$1,108 58	
Bonds and dividends on stocks, $14,818.79; from other sources, $681.66	15,500 45	
Rents	2,893 42	
Total interest and rents		19,502 45
Total income		$732,732 47
Sum		$1,434,687 12

DISBURSEMENTS.

Accident—Gross amount paid for losses, $63,929.35; deduct reinsurance, $523.30	$63,406 05
Health—Gross amount paid for losses, $32,451.72; deduct reinsurance, $57.14	32,394 58
Liability	136,453 40
Plate glass—Gross amount paid for losses, $62,564.60; deduct salvage, $1,597.31	60,967 29
Steam boiler	228 79
Automobile property damage	957 49
Workmen's collective	1,740 37
Total net amount paid policyholders for losses	$296,147 97
Investigation and adjustment of claims	53,449 70
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	198,690 61
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	35,080 27
Salaries, traveling and all other expenses of agents not paid by commissions	47,005 18
Medical examiners' fees and salaries	687 13
Inspections (other than medical and claim)	10,316 02
Rents	6,837 49
Repairs and expenses (other than taxes) on real estate	1,793 24
Taxes on real estate	824 96
State taxes on premiums	11,882 88
Insurance Department licenses and fees	5,289 47
All other licenses, fees and taxes	1,200 00
Legal expenses	1,576 72
Advertising	1,729 22
Printing and stationery	7,990 25
Postage, telegraph, telephone and express	6,244 01
Furniture and fixtures	1,583 27
Stockholders for interest or dividends	10,000 00
Dividends to policyholders	275 36
General expense	2,584 19
Agents' balances charged off	1,924 39
Loss on sale or maturity of ledger assets	1,825 00

LEDGER ASSETS.

Book value of real estate		$77,219 15
Mortgage loans on real estate		4,725 00
Loans secured by pledge of bonds, stocks or other collaterals		11,250 00
Book value of bonds and stocks (Schedule "D")		385,598 25
Cash in office		11,885 63
Deposits in trust companies and banks not on interest		10,215 98
Deposits in trust companies and banks on interest		15,995 85

Gross premiums in course of collection on policies or renewals:

	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Accident	$16,179 84	$3,334 44	
Health	9,668 37	1,474 05	
Liability	114,166 43	9,617 47	
Plate glass	22,902 94	4,814 45	
Steam boiler	2,375 91	75 80	
Automobile property damage	1,407 89		
Workmen's collective	1,199 42	683 79	
Totals	$167,900 80	$20,000 00	187,900 80

Bills receivable	$4,824 42	
Accounts receivable, $19,941.71; accident case account, $193.00	20,134 71	24,959 13
Ledger assets as per balance		$729,749 79

Non-Ledger Assets.

Interest due and accrued on:

Mortgages	$58 13	
Bonds	3,462 27	
Interest accrued, banks	172 85	
		3,693 25
Market value of real estate over book value		7,664 56
Gross assets		$741,107 60

Deduct Assets Not Admitted.

Bills receivable	$4,824 42	
Premiums in course of collection written prior to October 1, 1911	20,000 00	
Book value of ledger assets over market value	53,237 96	
Total		78,062 38
Total admitted assets		$663,045 22

LIABILITIES.

Losses and claims:

Accident—Reported or in process of adjustment, $32,052.88; deduct reinsurance, $252.50; estimated expense of investigation and adjustment of unpaid claims, $800.00		$32,600 38
Health—Reported or in process of adjustment, $6,081.64; deduct reinsurance, $575.00; estimated expense of investigation and adjustment of unpaid claims, $200.00		5,706 64
Plate glass		8,319 07
Workmen's collective		652 02
Net unpaid claims, except liability claims		$47,278 11
Special reserve for unpaid liability losses		151,008 77
Unearned premiums at 50 per cent on risks running one year or less	$219,892 40	
Unearned premiums, pro rata on risks running more than one year	8,393 43	
Total unearned premiums		228,285 83

Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident, $6,821.56; health, $3,870.05; liability, $35,243.56; plate glass, $10,086.44; steam boiler, $672.21; automobile property damage, $413.92; workmen's collective, $564.96		$57,672 70
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		10,000 00
Total amount of all liabilities except capital		$494,245 41
Capital actually paid up in cash	$200,000 00 —31,200 19	
Surplus as regards policyholders		168,799 81
Total liabilities		$663,045 22

EXHIBIT OF PREMIUMS.

	Accident.	Health.	Liability.
In force December 31, 1910	$77,138 31	$35,850 21	$218,791 88
Written or renewed during the year	195,078 97	101,490 26	497,673 37
Totals	$272,217 28	$137,340 47	$716,465 25
Deduct expirations and cancellations	190,109 50	101,016 50	512,625 72
Balance	$82,107 78	$36,323 97	$203,839 53
Deduct reinsured policies	4,405 54	1,170 98	3,960 70
Net in force December 31, 1911	$77,702 24	$35,152 99	$199,878 83

	Plate glass.	Steam boiler.
In force December 31, 1910	$128,783 91	$18,119 39
Written or renewed during the year	147,861 67	12,109 71
Totals	$276,645 58	$30,229 10
Deduct expirations and cancellations	152,857 08	13,817 96
Balance	$123,788 50	$16,411 14
Deduct reinsured policies	----------	61 65
Net in force December 31, 1911	$123,788 50	$16,349 49

	Automobile property damage.	Workmen's collective.
In force December 31, 1910	$2,602 25	$3,528 07
Written or renewed during the year	7,805 54	6,184 63
Totals	$10,407 79	$9,712 70
Deduct expirations and cancellations	5,347 76	8,964 68
Net in force December 31, 1911	$5,060 03	$748 02

Total dividends declared from organization: Cash	$18,000 00
Total losses incurred during the year (less reinsurance)	1,569,185 23

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Accident	$9,858 91	$8,322 63
Health	3,993 72	1,971 08
Liability	13,136 84	4,054 90
Plate glass	7,766 98	2,573 49
Automobile property damage	126 55	255 70
Workmen's collective	288 85	136 61
Totals	$35,171 85	$17,314 41

PHILADELPHIA CASUALTY COMPANY.

Fidelity Building, Baltimore, Maryland. Principal office, 507 Real Estate Trust Building, Philadelphia, Pennsylvania.

(Incorporated Nov. 21, 1899. Commenced business in California March 15, 1900.)

J. ARTHUR NELSON, President. ROBT. G. HAZELDINE, Secretary.

Agent for service in California: PAUL M. NIPPERT COMPANY, San Francisco.

CAPITAL.

Capital stock paid up in cash	$200,000 00	
Amount of ledger assets December 31st of previous year		$1,292,001 99
Decrease of paid-up capital during the year	$300,000 00	
Extended at		$1,292,001 99

INCOME.

Accident—Gross premiums written and renewed during the year, $108,109.69; deduct reinsurance, $23,515.68; return premiums on policies canceled, $2,119.94; premiums on policies not taken, $27,101.73: Total deductions, $52,737.35		$55,372 34
Health—Gross premiums written and renewed during the year, $46,287.58; deduct reinsurance, $7,063.74; return premiums on policies canceled, $1,295.41; premiums on policies not taken, $13,319.44: Total deductions, $21,678.59		24,608 99
Liability—Gross premiums written and renewed during the year, $283,372.12; deduct reinsurance, $221,152.58; return premiums on policies canceled, $30,422.72; premiums on policies not taken, $99,108.70: Total deductions, $350,684.00		67,311 88
Plate glass—Gross premiums written and renewed during the year, $42,286.79; deduct reinsurance, $4,156.13; return premiums on policies canceled, $3,805.06; premiums on policies not taken, $16,569.01: Total deductions, $24,530.20		17,756 59
Credit—Gross premiums written and renewed during the year, $17,994.71; deduct return premiums on policies canceled, $3,543.75; premiums on policies not taken, $11,537.50: Total deductions, $15,081.25		2,913 46
Automobile property damage—Gross premiums written and renewed during the year, $23,961.82; deduct reinsurance, $23,021.68; return premiums on policies canceled, $3,989.78; premiums on policies not taken, $8,900.25: Total deductions, $35,911.71		11,949 89
Workmen's collective—Gross premiums written and renewed during the year, $174.96; deduct reinsurance, $99.13; premiums on policies not taken, $75.30: Total deductions, $174.43		53
Total net premiums		$21,390 14
Bonds and dividends on stocks, $29,450.55; from other sources, $279.18	$29,729 73	
Rents	919 17	
Total interest and rents		30,648 90
Fidelity and Deposit Company contract		190,535 44
Profit on sale or maturity of ledger assets		585 21
Total income		$243,159 69
Sum		$1,535,161 68

DISBURSEMENTS.

Accident—Gross amount paid for losses, $49,425.96; deduct reinsurance, $14,144.79	$35,281 17
Health—Gross amount paid for losses, $16,103.33; deduct reinsurance, $7,726.39	8,376 94
Liability—Gross amount paid for losses, $266,665.65; deduct reinsurance, $44,118.88	22,546 77

Plate glass—Gross amount paid for losses, $25,463.82; deduct salvage, $180.13	$25,283 69
Credit—Gross amount paid for losses, $97,823.28; deduct salvage. $6,041.79	91,781 49
Automobile property damage—Gross amount paid for losses, $36,460.15; deduct reinsurance, $12,965.95; salvage, $21.00: Total deductions, $12,986.95	23,473 20
Workmen's collective—Gross amount paid for losses, $371.81; deduct reinsurance, $12.42	359 39
Total net amount paid policyholders for losses	$407,102 65
Investigation and adjustment of claims	68,172 00
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	1,045 83
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	6,900 89
Salaries, traveling and all other expenses of agents not paid by commissions	4,040 48
Inspections (other than medical and claim)	1,342 18
Repairs and expenses (other than taxes) on real estate	1,191 73
State taxes on premiums	14,759 23
Insurance Department licenses and fees	1,408 55
All other licenses, fees and taxes	3,540 16
Legal expenses	937 38
Advertising	328 90
Printing and stationery	1,863 95
Postage, telegraph, telephone and express	377 19
Stockholders for interest or dividends	300,000 00
Other disbursements: Fidelity and Deposit Company, per contract, $275,000.00; general expense, $585.97	275,585 97
Agents' balances charged off	10,761 25
Loss on sale or maturity of ledger assets	7,202 74
Decrease in book value of ledger assets	352 62
Total disbursements	$1,104,822 04
Balance	$430,339 64

LEDGER ASSETS.

Mortgage loans on real estate, first liens	$8,000 00
Book value of bonds and stocks	304,478 62
Deposits in trust companies and banks on interest	17,709 11

Gross premiums in course of collection on policies or renewals:

	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Accident	$6,402 02	$1,364 56	
Health	16,007 43	954 34	
Liability	30,173 68	14,361 46	
Plate glass	2,996 16	1,117 62	
Automobile property damage	6,330 41	290 52	
Workmen's collective		49 66	
Totals	$61,909 70	$18,138 16	80,047 86

Other ledger assets: Agents' balances, $346.30; due from Creditors' Fund Association, $1,976.09; furniture and fixtures, $17,781.66	20,104 05
Ledger assets as per balance	$430,339 64

Non-Ledger Assets.

Interest due and accrued on:

Mortgages	$72 00	
Bonds	2,858 41	
		2,930 41
Gross assets		$433,270 05

Amount brought forward		$433,270 58

Deduct Assets Not Admitted.

Furniture and fixtures	$17,781 66	
Premiums in course of collection written prior to October 1, 1911	18,138 16	
Book value of ledger assets over market value	13,627 77	
Total		49,547 59
Total admitted assets		$383,722 46

LIABILITIES.

Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident, $1,862.99; health, $4,658.16; liability, $8,782.80; plate glass, $871.88; automobile property damage, $1,842.15		$18,017 98
Reinsurance		49,728 96
Total amount of all liabilities except capital		$67,746 94
Capital actually paid up in cash	$200,000 00	
Surplus over all liabilities	115,975 52	
Surplus as regards policyholders		315,975 52
Total liabilities		$383,722 46

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Accident	$638 86	$859 91
Health	197 55	
Liability	1,645 51	8,245 35
Plate glass	2 40	
Automobile property damage	*218 75	2,250 78
Totals	*$1,025 45	$11,356 04

THE PREFERRED ACCIDENT INSURANCE COMPANY.

No. 290 Broadway, New York City, New York.

(Incorporated March 3, 1893. Commenced business in California May 6, 1893.)

KIMBALL C. ATWOOD, President. WILFRID C. POTTER, Secretary.

Agent for service in California: GEO. C. FARRELL, San Francisco.

CAPITAL.

Capital stock paid up in cash	$700,000 00	
Amount of ledger assets December 31st of previous year		$2,264,512 78
Increase of paid up capital during the year		350,000 00
Extended at		$2,614,512 78

INCOME.

Accident—Gross premiums written and renewed during the year, $1,268,014.75; deduct reinsurance, $22,535.66; return premiums on policies canceled, $4,565.11; premiums on policies not taken, $125,001.09: Total deductions, $152,101.86	$1,115,912 89
Health—Gross premiums written and renewed during the year, $344,771.45; deduct reinsurance, $1,530.03; return premiums on policies canceled, $2,353.37; premiums on policies not taken, $58,332.76: Total deductions, $62,216.16	282,555 29

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* Return premiums and reinsurance premiums were greater than gross writings.

Liability—Gross premiums written and renewed during the year, $104,782.57; deduct reinsurance, $1,640.16; premiums on policies not taken, $22,309.46: Total deductions, $23,949.62		80,832 95
Burglary and theft—Gross premiums written and renewed during the year, $27,129.04; deduct reinsurance, $1,907.67; premiums on policies not taken, $4,130.95: Total deductions, $6,038.62		21,090 42
Automobile property damage—Gross premiums written and renewed during the year, $65,679.21; premiums on policies not taken, $14,902.99: Total deductions, $14,902.99		50,776 22
Total net premiums		$1,551,167 77
Interest on mortgage loans	$1,895 84	
Bonds and dividends on stocks, $74,544.14; from other sources, $588.00	80,424 14	
		82,319 98
Total income		$1,633,487 75
Sum		$4,248,000 53

DISBURSEMENTS.

Accident—Gross amount paid for losses, $396,624.89; deduct reinsurance, $5,118.16	$391,506 73
Health—Gross amount paid for losses, $106,502.45; deduct reinsurance $223.07	106,279 38
Liability—Gross amount paid for losses	890 00
Burglary and theft—Gross amount paid for losses	196 63
Automobile property damage—Gross amount paid for losses, $681.58; salvage, $25.00	656 58
Total net amount paid policyholders for losses	$499,529 32
Investigation and adjustment of claims	12,680 87
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	481,049 11
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	131,771 31
Salaries, traveling and all other expenses of agents not paid by commissions	38,519 77
Medical examiners' fees and salaries	17,207 42
Inspectors (other than medical and claim)	1,035 36
Rents	17,250 94
State taxes on premiums	21,567 36
Insurance Department licenses and fees	4,417 11
All other licenses, fees and taxes	2,018 44
Legal expenses	3,177 54
Advertising	6,214 75
Printing and stationery	17,407 75
Postage, telegraph, telephone and express	8,053 17
Furniture and fixtures	2,223 99
Stockholders for interest or dividends	119,000 00
Other disbursements: Bank exchange, $1,024.73; moving furniture, $97.60; car fare, $48.31; ice, $35.70; water, $128.40; laundry, $234.47; porters, $105.50; bureau of publicity, $542.50; International Claim Association, $20.00; International Underwriters Association, $70.00; workman's comp. bureau, $100; wedding present, $100; inspection of election, $40.00; deposit vault rent, $66.67; petty items, $69.40	2,683 28
Loss on sale or maturity of ledger assets	31 25
Total disbursements	$1,385,838 74
Balance	$2,862,161 79

LEDGER ASSETS.

	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Mortgage loans on real estate, first liens			$75,000 00
Book value of bonds and stocks			2,304,933 71
Cash in office			1,092 38
Deposits in trust companies and banks not on interest			50,000 00
Deposits in trust companies and banks on interest			74,985 47
Gross premiums in course of collection on policies or renewals:			
Accident	$162,318 94	$27,398 01	
Health	40,579 74	6,849 50	
Liability	58,655 16		
Burglary and theft	14,913 79		
Automobile property damage	34,997 90		
Totals	$311,465 53	$34,247 51	345,713 04
Bills receivable		$823 75	
Advances to agents		9,613 44	
			10,437 19
Ledger assets as per balance			$2,862,161 79

Non-Ledger Assets.

Interest due and accrued on bonds	19,956 99
Gross assets	$2,882,118 78

Deduct Assets Not Admitted.

Bills receivable	$823 75	
Premiums in course of collection written prior to October 1, 1911	34,247 51	
Book value of ledger assets over market value: Bonds and stocks, $110,019.27; advances to agents, $9,613.44	119,632 71	
Total		154,703 97
Total admitted assets		$2,727,414 81

LIABILITIES.

Losses and claims:		
Accident—Reported or in process of adjustment, $91,176.72; resisted, $8,225.00; net unpaid claims except liability claims, $99,401.72; Estimated expense of investigation and adjustment of unpaid claims, $2,000.00		$101,401 72
Health—Reported or in process of adjustment, $15,067.84; resisted, $3,575.00; net unpaid claims except liability claims		18,642 84
Burglary and theft—Reported or in process of adjustment, $1,550.00; deduct reinsurance, $358.33; net unpaid claims except liability claims, $1,191.67; estimated expense of investigation and adjustment of unpaid claims, $100.00		1,291 67
Automobile property damage—Reported or in process of adjustment, $1,910.00; estimated expense of investigation and adjustment of unpaid claims, $100.00		2,010 00
Net unpaid claims, except liability claims		$123,346 23
Special reserve for unpaid liability losses		5,480 61
Total unpaid claims and expenses of settlement		$128,826 84
Unearned premiums at 50 per cent on risks running one year or less	$753,265 85	
Unearned premiums, pro rata on risks running more than one year	5,267 99	
Total unearned premiums		758,533 84

Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident, $39,052.01; health, $13,563.92; liability, $8,747.82; burglary and theft, $2,762.71; automobile property damage, $4,998.37		$69,124 83
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		7,147 90
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		24,000 00
Dividends declared and unpaid to stockholders		14,000 00
Reinsurance		6,265 90
Advance premiums (100 per cent)		2,950 00
Other liabilities: Reserve for contingent installment policies claims, $118,904.00; additional voluntary reserve for contingencies, $25,000.00		143,904 00
Total		$1,154,753 31
Capital actually paid up in cash	$700,000.00	
Surplus over all liabilities	872,661 50	
Surplus as regards policyholders		1,572,661 50
Total liabilities		$2,727,414 81

EXHIBIT OF PREMIUMS.

	Accident.	Health.	Liability.
In force December 31, 1910	$987,587 13	$267,668 55	
Written or renewed during the year	1,268,014 75	344,771 45	$104,782 57
Totals	$2,255,601 88	$612,440 00	$104,782 57
Deduct expirations and cancellations	1,276,050 60	321,858 31	22,309 46
Balance	$979,551 28	$290,581 69	$82,473 11
Deduct reinsured policies	6,498 66	740 00	1,640 16
Net in force December 31, 1911	$973,052 62	$289,841 69	$80,832 95

	Burglary and theft.	Automobile property damage.
Written or renewed during the year	$27,129 04	$65,679 21
Deduct expirations and cancellations	4,169 05	14,902 99
Balance	$22,959 99	$50,776 22
Deduct reinsured policies	1,907 67	----------
Net in force December 31, 1911	$21,052 32	$50,776 22

Total dividends declared from organization: Cash, $639,000.00; stock, $100,000.00	$739,000 00
Total losses incurred during the year (less reinsurance)	551,269 22

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

Gross premiums less return premiums on risks written or renewed during the year:		Gross losses paid.
Accident	$61,450 00	$16,649 44
Health	9,560 00	3,585 35
Totals	$71,010 00	$20,234 79

PREMIER INDEMNITY ASSURANCE COMPANY.

No. 201 American National Bank Building, Fifth and D streets, San Diego, California.

(Incorporated January 23, 1911. Commenced business in California October 16, 1911.)

JOHN D. LAWRENCE, President. C. W. BENJAMIN, Secretary.

CAPITAL.

Capital stock paid up in cash	$26,600 00	
Surplus paid in by stockholders	26,600 00	
Extended at		$26,600 00

INCOME.

Accident—Gross premiums written and renewed during the year, $1,490.55: Total deductions, $25.00	$1,465 55
Health—Gross premiums written and renewed during the year	120 20
Workmen's compensation—Gross premiums written and renewed during the year	1,762 73
Total net premiums	$3,348 48
Policy fees required or represented by applications	6 00
Surplus paid in on capital stock	26,600 00
Surplus paid in on account of stock	250 00
Total income	$30,204 48
Sum	$56,804 48

DISBURSEMENTS.

Accident—Net amount paid policyholders for losses	$87 50
Policy fees retained by agents	6 00
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	996 87
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	660 35
Salaries, traveling and all other expenses of agents not paid by commissions	220 80
Medical examiners' fees and salaries	4 00
Rents	420 00
State taxes on premiums	215 83
Legal expenses	405 05
Advertising	328 42
Printing and stationery	2,031 96
Postage, telegraph, telephone and express	450 03
Furniture and fixtures	2,816 29
Organization expenses	19,140 63
Total disbursements	$27,783 73
Balance	$29,020 75

LEDGER ASSETS.

Mortgage loans on real estate, first liens		$17,100 00
Cash in office		197 98
Deposits in trust companies and banks not on interest		9,115 57
Gross premiums in course of collection on policies or renewals issued on or after October 1, 1911: Accident, $52.85; workmen's compensation, $113.40		166 25
Agents' balances on advances	$2,420 95	
Deposits on telephones	20 00	
		2,440 95
Ledger assets as per balance		$29,020 75

Non-Ledger Assets.

Interest due and accrued on mortgages	$271 70
Printed matter and stationery, $2,031.96; furniture and fixtures, $2,816.29	4,848 35
Deposit on telephone interest	1 20
Gross assets	$34,141 90

LIABILITIES.

Unearned premiums at 50 per cent on risks running one year or less		$1,478 45
Paid on account of stock		250 00
Total amount of all liabilities except capital		$1,728 45
Capital actually paid up in cash	$26,600 00	
Surplus over all liabilities	5,813 45	
Surplus as regards policyholders		32,413 45
Total liabilities		$34,141 90

EXHIBIT OF PREMIUMS.

	Accident.	Health.	Workmen's collective.
Written or renewed during the year	$1,490 55	$120 20	$1,762 73
Deduct expirations and cancellations	25 00		
Net in force December 31, 1911	$1,465 55	$120 20	$1,762 73

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Accident	$1,465 55	$87 50
Health	120 00	
Workmen's compensation	1,762 73	
Totals	$3,348 48	$87 50

PRUDENTIAL CASUALTY COMPANY.

I. O. O. F. Building, Indianapolis, Indiana.

(Incorporated June 10, 1908. Commenced business in California October, 1910.)

ELIAS J. JACOBY, President. WALTON L. DYNES, Secretary.

Agent for service in California: C. F. PHILLIPPS, San Francisco.

CAPITAL.

Capital stock paid up in cash	$600,000 00	
Amount of ledger assets December 31st of previous year		$822,097 06

INCOME.

Accident—Gross premiums written and renewed during the year, $21,740.30; deduct reinsurance, $1,087.19; return premiums on policies canceled, $435.24; premiums on policies not taken, $4,604.42: Total deductions, $6,126.85	$15,613 45

Health—Gross premiums written and renewed during the year, $5,347.68; deduct reinsurance, $113.10; return premiums on policies canceled, $216.27; premiums on policies not taken,

Amount brought forward		$19.069 96
Liability—Gross premiums written and renewed during the year. $107.915.33; deduct reinsurance. $212.34; return premiums on policies canceled. $2.789.00; premiums on policies not taken. $33,971.92: Total deductions. $369,739.26		70.942 07
Plate glass—Gross premiums written and renewed during the year. $18.329.71; deduct return premiums on policies canceled. $427.84; premiums on policies not taken, $3,724.64: Total deductions. $4.152.48		14,177 23
Steam boiler—Gross premiums written and renewed during the year. $4,895.19; deduct reinsurance. $33.05; return premiums on policies canceled. $246.29; premiums on policies not taken. $2.585.88: Total deductions. $2.865.22		2.029 97
Burglary and theft—Gross premiums written and renewed during the year, $21,457.60; deduct reinsurance, $977.90; return premiums on policies canceled. $1.202.99; premiums on policies not taken, $3.866.57: Total deductions. $6.047.46		15.410 14
Automobile property damage—Gross premiums written and renewed during the year. $5.444.64; deduct return premiums on policies canceled, $234.58; premiums on policies not taken, $1,126.79: Total deductions, $1.361.37		4.083 27
Physicians' liability—Gross premiums written and renewed during the year, $185.00; deduct premiums on policies not taken, $60.00		125 00
Total		$125,837 64
Interest on mortgage loans and collateral loans	$16.776 61	
Bonds and dividends on stocks and from other sources	10,757 07	
Total interest		27.533 68
Interest bank deposits, $556.26; other sources		1,168 81
Miscellaneous account omitted 1910. $439.22; premium on bonds, $1.792.40; return premium on stock. $948.81		3.180 43
Total income		$157.720 56
Sum		$979,817 62

DISBURSEMENTS.

Accident—Gross amount paid for losses	$1,151 60
Health—Gross amount paid for losses	1.038 29
Liability—Gross amount paid for losses	6.927 18
Industrial—Gross amount paid for losses	659 49
Plate glass—Gross amount paid for losses, $2,241.47; deduct salvage. $43.90	2.197 57
Burglary and theft—Gross amount paid for losses, $2,258.30; deduct salvage, $0.50	2.257 80
Automobile property damage—Gross amount paid for losses. $611.18; deduct salvage. $40.00	571 15
Total net amount paid policyholders for losses	$14.803 08
Investigation and adjustment of claims	4.280 55
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	25.342 44
Salaries. fees and all other compensation of officers. directors. trustees. and home office employees	27.325 22
Salaries. traveling and all other expenses of agents not paid by commissions	11.623 13
Medical examiners' fees and salaries	1.390 50
Inspections (other than medical and claim)	1.496 72
Rents	5.959 80
State taxes on premiums	575 05
Insurance Department licenses and fees	3.743 20
Legal expenses	834 64
Advertising	2.345 88
Printing and stationery	12.075 48

Postage, telegraph, telephone and express	$2,750 00
Other disbursements: Conference dues, $679.50; exchange, $56.00; agents' furniture, $29.55; miscellaneous, $26.00; surety bond, $130.25; sundry office expense, $2,021.33; miscellaneous, $5.93; bills receivable charged off, $40,255.00; commission stock sale, $13,368.25; policies not taken, $494.00	57,010 37
Agents' balances charged off	50 30
Total disbursements	$171,606 36
Balance	$808,211 26

LEDGER ASSETS.

	Issued on or after October 1, 1911.	
Mortgage loans on real estate, first liens		$308,171 00
Book value of bonds and stocks (schedule "D")		322,787 63
Cash in office		508 58
Deposits in trust companies and banks not on interest		21,832 90
Deposits in trust companies and banks on interest		107,797 27
Gross premiums in course of collection on policies or renewals:		
Accident	$4,540 97	
Health	1,538 70	
Liability	31,401 21	
Plate glass	4,651 33	
Steam boiler	367 00	
Burglary and theft	4,067 76	
Physicians' liability	85 00	
Automobile property damage	1,348 40	
Total		48,000 37
Bills receivable		2,559 66
Total		$811,657 41
Agents' credit balance		3,446 15
Ledger assets as per balance		$808,211 26
Agents' credit balance (see Liabilities)		3,446 15

Non-Ledger Assets.

Interest due and accrued on:		
Mortgages	$4,082 55	
Bonds	1,897 33	
Certificate of deposit	2,830 95	
		8,810 83
Gross assets		$820,468 24

LIABILITIES.

Losses and claims:		
Accident—Reported or in process of adjustment, $187.50; resisted, $200.00; net claims unpaid except liability claims		$387 50
Health—Reported or in process of adjustment		100 00
Plate glass—Reported or in process of adjustment		220 06
Burglary and theft—Reported or in process of adjustment		850 00
Sprinkler—Net unpaid claims except liability claims		297 50
Special reserve for unpaid liability losses		12,038 65
Net unpaid claims, except liability claims		$13,893 71
Unearned premiums at 50 per cent on risks running one year or less	$54,728 09	
Unearned premiums, pro rata on risks running more than one year	6,100 37	
Total unearned premiums		60,828 46

Amount brought forward		$74,922 17
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident, $1,135.24; health, $384.67; liability, $7,850.30; plate glass, $1,162.84; steam boiler, $91.75; burglary and theft, $1,016.94; automobile property damage, $337.10; physicians' liability, $21.25		12,000 09
Return premiums, agents' credit balance		3,134 11
Reinsurance, agents' credit balance		312 04
Advance premiums (100 per cent)		342 62
Total		$90,511 03
Capital actually paid up in cash	$600,000 00	
Surplus over all liabilities	129,957 21	
Surplus as regards policyholders		729,957 21
Total liabilities		$820,468 24

EXHIBIT OF PREMIUMS.

	Accident.	Health.	Liability.
In force December 31, 1910	$4,720 20	$985 50	$11,195 32
Written or renewed during the year	19,698 38	5,347 68	104,915 33
Totals	$24,418 58	$6,333 18	$116,110 65
Deduct expirations and cancellation	10,170 01	2,559 23	55,399 92
Balance	$14,248 57	$3,773 95	$60,710 73
Deduct reinsured policies	1,386 42	165 60	219 47
Net in force December 31, 1911	$12,862 15	$3,608 35	$60,491 26
	Plate glass.	Steam boiler.	Burglary and theft.
In force December 31, 1910	$1,905 14	$3,360 34	$4,657 04
Written or renewed during the year	18,329 71	4,895 19	21,457 60
Totals	$20,234 85	$8,255 53	$26,114 64
Deduct expirations and cancellations	6,119 70	3,513 09	8,866 47
Balance	$14,115 15	$4,742 44	$17,248 17
Deduct reinsured policies	----------	232 45	1,202 59
Net in force December 31, 1911	$14,115 15	$4,509 99	$16,045 58
	Automobile property damage.	Sprinkler.	Physicians' liabiliy.
In force December 31, 1910	$307 26	$165 00	----------
Written or renewed during the year	8,444 64	----------	$185 00
Totals	$8,751 90	$165 00	$185 00
Deduct expirations and cancellations	2,285 89	165 00	60 00
Net in force December 31, 1911	$6,466 01	------------	$125 00

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Accident	$332 25	$39 00
Health	282 76	135 00
Liability	1,730 49	103 30
Plate glass	1,755 17	181 53
Burglary and theft	973 09	363 90
Automobile property damage	159 75	----------
Totals	$5,233 51	$822 73

THE RIDGELY PROTECTIVE ASSOCIATION.

No. 518 Main street, Worcester, Massachusetts.

(Incorporated May 10, 1894, as a fraternal association. Reincorporated as a stock company December 26, 1907. Commenced business in California October 24, 1910.)

FRANCIS A. HARRINGTON, President. AUSTIN A. HEATH, Secretary.

Agent for service in California: JOHN W. WATKINS, Fresno.

CAPITAL.

Capital stock paid up in cash	$100,000 00	
Amount of ledger assets December 31st of previous year		$320,171 03

INCOME.

Accident and health—Gross premiums written and renewed during the year, $310,768.79; deduct return premiums on policies canceled, $568.74	$310,200 05
Policy fees required or represented by applications	42,940 50
Bonds and dividends on stocks, $10,080.62; from other sources, $2,928.83	13,009 45
Profit on sale or maturity of ledger assets	112 50
Total income	$366,262 50
Sum	$686,433 53

DISBURSEMENTS.

Accident—Net amount paid policyholders for losses	$63,074 53
Health—Net amount paid policyholders for losses	108,102 31
Investigation and adjustment of claims	4,267 52
Policy fees allowed agents	42,209 50
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	13,454 05
Salaries, fees and all other compensation of officers, directors, trustees and home office employees	47,951 58
Salaries, traveling and all other expenses of agents not paid by commissions	5,648 99
Rents	1,611 50
State taxes on premiums	4,966 78
Insurance Department licenses and fees	2,115 07
All other licenses, fees and taxes	1,887 32
Legal expenses	100 40
Advertising	980 79
Printing and stationery	5,077 67
Postage, telegraph, telephone and express	4,693 88
Furniture and fixtures	4,840 25
Stockholders for interest or dividends	5,000 00
Collection expense, $12,855.52; miscellaneous, $875.69	13,731 21
Agents' balances charged off	34 22
Decrease in book value of ledger assests	150 00
Total disbursements	$329,897 57
Balance	$356,535 96

LEDGER ASSETS.

Book value of bonds	$282,672 75
Cash in office	357 15
Deposits in trust companies and banks on interest	73,506 06
Ledger assets as per balance	$356,535 96

Non-Ledger Assets.

LIABILITIES.

Losses and claims:		
Accident—Reported or in process of adjustment, $10,686.80; estimated expense of investigation and adjustment of unpaid claims, $168.30		$10,855 10
Health—Reported or in process of adjustment, $18,239.60; resisted, $30.00; net unpaid claims except liability claims, $18,269.60; estimated expense of investigation and adjustment of unpaid claims, $361.25		18,630 85
Total unpaid claims and expenses of settlement		$29,485 95
Unearned premiums pro rata 1/6 on risks running 3 months from October 15, 1911	$14,203 54	
Unearned premiums, 1 1/6 on risks running 3 months from January 15, 1912	3,335 50	
Total unearned premiums		17,539 04
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		1,538 40
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		5,941 54
Advance premiums (100 per cent)		2,275 00
Reserve to cover liabilities as per item 3 page 7		4,000 00
Total amount of all liabilities except capital		$60,779 93
Capital actually paid up in cash	$100,000 00	
Surplus over all liabilities	200,956 55	
Surplus as regards policyholders		300,956 55
Total liabilities		$361,736 48

EXHIBIT OF PREMIUMS.

	Accident and health.
In force December 31, 1910	$86,082 25
Written or renewed during the year	310,768 79
Totals	$396,851 04
Deduct expirations and cancellations	308,770 79
Net in force December 31, 1911	$88,080 25

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

Gross premiums less return premiums on risks written or renewed during the year: Accident and health	$9,260 40
Gross losses paid	3,127 97

ROYAL INDEMNITY COMPANY.

No. 84 William street, New York City, New York.

(Incorporated Sept. 30, 1910. Commenced business in California March 13, 1911.)

EDWARD F. BEDDALL, President. J. HAROLD PEARCH, Secretary.

Agent for service in California: ROLLA V. WATT, San Francisco.

CAPITAL.

Capital stock paid up in cash	$500,000 00	
Amount of ledger assets January 19, 1911		$1,048,811 11
Increase of paid-up capital during the year		500,000 00
Surplus paid in by stockholders		300,000 00
Extended at		$1,848,811 11

INCOME.

Accident—Gross premiums written and renewed during the year, $41,689.14; deduct reinsurance, $4,548.46; return premiums on policies canceled, $698.50; premiums on policies not taken, $6,602.76: Total deductions, $11,849.72	$29,839 42
Health—Gross premiums written and renewed during the year, $17,673.66; deduct reinsurance, $777.76; return premiums on policies canceled, $313.45; premiums on policies not taken, $3,564.42: Total deductions, $4,655.63	13,018 03
Liability—Gross premiums written and renewed during the year, $510,414.53; deduct reinsurance, $5,723.68; return premiums on policies canceled, $19,475.42; premiums on policies not taken, $112,499.25: Total deductions, $137,698.35	372,716 18
Fidelity—Gross premiums written and renewed during the year, $35,850.27; deduct reinsurance, $2,531.97; return premiums on policies canceled, $1,056.86; premiums on policies not taken, $2,425.44: Total deductions, $6,014.27	29,836 00
Surety—Gross premiums written and renewed during the year, $12,800.11; deduct reinsurance, $1,146.25; return premiums on policies canceled, $19.38; premiums on policies not taken, $1,725.46: Total deductions, $2,891.09	9,909 02
Plate glass—Gross premiums written and renewed during the year, $45,541.18; return premiums on policies canceled, $947.26; premiums on policies not taken, $7,170.29: Total deductions, $8,117.55	37,423 63
Steam boiler—Gross premiums written and renewed during the year, $21,419.95; deduct reinsurance, $1,206.56; return premiums on policies canceled, $166.13; premiums on policies not taken, $5,175.00: Total deductions, $6,547.69	14,872 26
Burglary and theft—Gross premiums written and renewed during the year, $52,557.89; deduct reinsurance, $7,022.19; return premiums on policies canceled, $1,929.24; premiums on policies not taken, $5,473.08: Total deductions, $14,424.51	38,133 38
Fly wheel—Gross premiums written and renewed during the year, $6,213.78; deduct reinsurance, $636.23; return premiums on policies canceled, $10.35; premiums on policies not taken, $375.53: Total deductions, $1,022.11	5,191 67
Automobile property damage—Gross premiums written and renewed during the year, $101,475.77; deduct reinsurance, $5,666.13; return premiums on policies canceled, $6,452.80; premiums on policies not taken, $22,047.56: Total deductions, $34,166.49	67,309 28
Workmen's collective—Gross premiums written and renewed during the year, $4,242.76; deduct premiums on policies not taken, $2,809.40	1,433 36
Total net premiums	$619,682 23
Bonds and dividends on stocks, $25,871.32; from other sources, $1,484.68	27,356 00
Premiums on issue of additional capital stock of $500,000.00, par value $100 per share	11,084 47
Total income	$658,122 70
Sum	$2,506,933 81

DISBURSEMENTS.

Accident—Gross amount paid for losses, $871.94; deduct reinsurance, $18.00	$853 94
Health—Gross amount paid for losses, $687.81; deduct reinsurance, $37.50	650 31
Liability—Gross amount paid for losses, $40,775.94; deduct reinsurance, $25.00	40,750 94
Fidelity—Gross amount paid for losses	725 00
Plate glass—Gross amount paid for losses	3,481 01

Amount brought forward	$48,397 68
Automobile property damage—Gross amount paid for losses, $10,288.69; deduct reinsurance, $1,585.55; salvage, $69.20: Total deductions, $1,654.75	8,633 94
Workmen's collective—Gross amount paid for losses	318 75
Total net amount paid policyholders for losses	$56,625 37
Investigation and adjustment of claims	25,738 67
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	108,794 28
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	41,311 89
Salaries, traveling and all other expenses of agents not paid by commissions	142,942 87
Inspections (other than medical and claim)	8,393 86
Rents	13,704 42
State taxes on premiums	1,405 78
Insurance Department licenses and fees	7,438 99
All other licenses, fees and taxes	8,249 47
Legal expenses	7,696 32
Advertising	4,206 94
Printing and stationery	50,098 54
Postage, telegraph, telephone and express	11,949 42
Furniture and fixtures	25,100 99
Other disbursements: Employees' Fidelity bonds, $288.25; subscription to publication, $143.50; head office, sundry expenses, $3,739.74	4,171 49
Agents' balances charged off	750 86
Loss on sale or maturity of ledger assets	10 91
Total disbursements	$518,591 07
Balance	$1,988,342 74

LEDGER ASSETS.

Book value of bonds and stocks	$1,699,931 65
Cash in office	1,070 75
Deposits in trust companies and banks not on interest	5,284 62
Deposits in trust companies and banks on interest	99,115 90

Gross premiums in course of collection on policies or renewals:

	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Accident	$12,598 08	$779 78	
Health	5,770 79	210 21	
Liability	92,009 76	3,900 27	
Fidelity	9,480 91	935 04	
Surety	3,480 62	179 00	
Plate glass	12,213 59	404 80	
Steam boiler	9,567 39	213 50	
Burglary and theft	11,063 73	328 42	
Fly wheel	1,035 79	1,335 10	
Automobile property damage	15,929 93	1,044 75	
Workmen's collective	458 36		
Totals	$173,608 95	$9,330 87	182,939 82
Ledger assets as per balance			$1,988,342 74

Non-Ledger Assets.

Interest due and accrued on bonds		24,005 24
Gross assets		$2,012,347 98

Deduct Assets Not Admitted.

Premiums in course of collection written prior to October 1, 1911	$9,330 87	
Book value of ledger assets over market value: Bonds as per schedule D	9,169 08	
		18,499 95
Total admitted assets		$1,993,848 03

LIABILITIES.

Losses and claims:		
Accident—Reported or in process of adjustment		$5,547 14
Health—Reported or in process of adjustment		155 00
Fidelity—Adjusted, $400.00; reported or in process of adjustment, $15.29		415 29
Plate glass—Reported or in process of adjustment, $1,362.90; estimated expense of investigation and adjustment of unpaid claims, $35.00		1,397 90
Burglary and theft—Reported or in process of adjustment, $2,232.41; esimated expense of investigation and adjustment of unpaid claims, $115.00		2,347 41
Automobile property damage—Reported or in process of adjustment, $2,648.00; estimated expense of investigation and adjustment of unpaid claims, $200.00		3,048 00
Workmen's collective—Reported or in process of adjustment		20 00
Net unpaid claims, except liability claims		$12,930 74
Special reserve for unpaid liability losses		37,639 77
Unearned premiums at 50 per cent on risks running one year or less	$268,286 56	
Unearned premiums, pro rata on risks running more than one year	36,768 00	
Total unearned premiums		305,054 56
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident, $4,208.36; health, $1,829.55; liability, $20,590.75; fidelity, $2,325.24; surety, $886.34; plate glass, $3,204.18; steam boiler, $2,284.32; burglary and theft, $3,198.96; fly wheel, $318.56; automobile property damage, $3,546.16; workmen's collective, $147.49		42,539 91
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		7,135 03
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		8,838 00
Total amount of all liabilities except capital		$414,138 01
Capital actually paid up in cash	$1,000,000 00	
Surplus over all liabilities	579,710 02	
Surplus as regards policyholders		1,579,710 02
Total liabilities		$1,993,848 03

EXHIBIT OF PREMIUMS.

	Accident.	Health.	Liability.
Written or renewed during the year	$41,689 14	$17,673 66	$510,414 53
Deduct expirations and cancellations	8,371 69	4,611 88	164,162 31
Balance	$33,317 45	$13,061 78	$346,252 22
Deduct reinsured policies	4,548 46	777 76	5,723 68
Net in force December 31, 1911	$28,768 99	$12,284 02	$340,528 54

	Plate glass.	Fly wheel.
Written or renewed during the year	$45,541 18	$6,213 78
Deduct expirations and cancellations	8,362 10	385 88
Balance	$37,179 08	$5,827 90
Deduct reinsured policies	----------	636 23
Net in force December 31, 1911	$37,179 08	$5,191 67

	Surety.	Fidelity.
Written or renewed during the year	$12,800 11	$35,850 27
Deduct expirations and cancellations	1,854 39	3,943 58
Balance	$10,945 72	$31,906 69
Deduct reinsured policies	1,146 25	2,531 97

	Steam boiler.	Burglary and theft.
Written or renewed during the year	$21.419 95	$52,557 89
Deduct expirations and cancellations	5,357 50	8.582 00
Balance	$16,062 45	$43,975 89
Deduct reinsured policies	1,206 56	7,022 19
Net in force December 31, 1911	$14,855 89	$36.953 70

	Automobile property damage.	Workmen's collective.
Written or renewed during the year	$101,475 77	$4,242 76
Deduct expirations and cancellations	35,176 03	2.809 40
Balance	$66,299 74	$1,433 36
Deduct reinsured policies	5,666 13	----------
Net in force December 31, 1911	$60.633 61	$1.433 36
Total losses incurred during the year (less reinsurance)		$132.934 55

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Accident	$2,276 64	$100 95
Health	221 06	1 97
Liability	39.612 82	1,679 13
Fidelity	3,677 62	----------
Surety	541 62	----------
Plate glass	3.114 55	582 83
Steam boiler	369 10	7 23
Burglary and theft	2,957 47	5 54
Automobile property damage	2.862 46	168 95
Workmen's collective	975 00	325 93
Totals	$56.608 34	$2.872 53

SOUTHWESTERN SURETY COMPANY.

Durant, Oklahoma.

(Incorporated November 15, 1909. Commenced business in California, November 15, 1910.)

W. B. MUNSON, President. W. O. VANWYCK, Assistant Secretary.

Agent for service in California: WM. V. LLOYD, San Francisco.

CAPITAL.

Capital stock paid up in cash	$523.705 00	
Amount of ledger assets December 31st of previous year		$839.426 60
Increase of paid-up capital during the year		74.770 00
Surplus paid in by stockholders		73.137 00
Extended at		$987.333 60

INCOME.

Accident—Gross premiums written and renewed during the year, $1.227.65; deduct reinsurance, $75.58	$1.152 07
Health—Gross premiums written and renewed during the year, $630.75; deduct reinsurance, $26.96	603 49
Liability—Gross premiums written and renewed during the year, $87,346.44; deduct return premiums on policies canceled, $2.500.52; premiums on policies not taken, $8,082.55; Total deductions, $10,583.07	76.763 37

Fidelity—Gross premiums written and renewed during the year, $66,742.94; deduct reinsurance, $2,725.59; return premiums on policies canceled, $1,849.98; premiums on policies not taken, $7,570.56: Total deductions, $12,146.13		$54,596 81
Surety—Gross premiums written and renewed during the year, $121,125.71; deduct reinsurance, $2,422.50; return premiums on policies canceled, $3,038.40; premiums on policies not taken, $17,823.02: Total deductions, $23,283.92		97,841 79
Plate glass—Gross premiums written and renewed during the year, $19,124.10; deduct return premiums on policies canceled, $1,583.40; premiums on policies not taken, $1,542.79: Total deductions, $3,126.19		15,997 91
Burglary and theft—Gross premiums written and renewed during the year, $3,944.95; deduct return premiums on policies canceled, $4,379.93; premiums on policies not taken, $539.19: Total deductions, $977.12		2,967 83
Automobile property damage—Gross premiums written and renewed during the year, $6,916.44; deduct return premiums on policies canceled, $5,874.69; premiums on policies not taken, $2,366.97: Total deductions, $8,241.66		1,325 22
Total net premiums		$248,598 35
Interest on mortgage loans, $16,133.52; collateral loans, $402.92	$16,536 44	
Bonds and dividends on stocks, $19,637.08; from other sources, $4,451.53	24,088 61	
Rents	5,140 67	
Total interest and rents		45,765 72
Cancellation of contract with State National Bank		4,000 00
Total income		$298,364 07
Sum		$1,285,697 67

DISBURSEMENTS.

Accident—Gross amount paid for losses	$117 85
Liability—Gross amount paid for losses	4,862 85
Surety—Gross amount paid for losses	6,698 12
Plate glass—Gross amount paid for losses	5,872 90
Burglary and theft—Gross amount paid for losses	3,366 45
Automobile property damage—Gross amount paid for losses, $2,818.07; deduct salvage, $10.00	2,808 07
Total net amount paid policyholders for losses	$23,726 24
Investigation and adjustment of claims	1,225 05
Commissions or brokerage to agents (less amounts received on return premiums and reinsurances)	63,173 51
Salaries, fees and all other compensation of officers, directors, trustees and home office employees	23,908 14
Salaries, traveling and all other expenses of agents not paid by commissions	1,248 00
Inspections (other than medical and claim)	40 70
Rents	1,668 00
Repairs and expenses (other than taxes) on real estate	2,890 15
Taxes on real estate	746 83
State taxes on premiums	415 71
Insurance Department licenses and fees	3,677 10
All other licenses, fees and taxes	9,863 10
Legal expenses	3,163 46
Advertising	906 35
Printing and stationery	6,761 46
Postage, telegraph, telephone and express	3,714 09
Furniture and fixtures	1,456 74

Amount brought forward	$148,584 63
Other disbursements: General expense, $2,095.98; investment expense, $347.35; traveling expenses (officers and home office employees), $2,226.10	4,669 43
Agents' balances charged off	3,155 50
Total disbursements	$156,409 56
Balance	$1,129,288 11

LEDGER ASSETS.

Book value of real estate			$40,000 00
Mortgage loans on real estate, first liens, $396,938.70; other than first, $3,210.00			400,148 70
Book value of bonds and stocks			481,287 78
Cash in office			2,986 68
Deposits in trust companies and banks on interest			132,426 71
Gross premiums in course of collection on policies or renewals:			
	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Accident	$792 65		
Health	592 25		
Liability	36,705 22	1,268 57	
Fidelity	7,694 88	2,791 24	
Surety	15,100 57	2,204 56	
Plate glass	3,598 73	155 23	
Burglary and theft	541 09	117 00	
Automobile property damage	429 20	197 05	
Totals	$65,454 59	$6,733 65	72,188 34
Surety Association of America (deposit)			250 00
Ledger assets as per balance			$1,129,288 11

Non-Ledger Assets.

Interest due and accrued on:		
Mortgages	$12,173 65	
Bonds	15,363 40	
Bank balances	42 03	
Rents due and accrued	178 00	
		27,757 08
Gross assets		$1,157,045 19

Deduct Assets Not Admitted.

Premiums in course of collection written prior to October 1, 1911	$6,733 65	
Book value of ledger assets over market value: U. S. 3 per cent bonds, $656.25; second lien note, $3,210.00	3,866 25	
Total		10,599 90
Total admitted assets		$1,146,445 29

LIABILITIES.

Losses and claims:	
Surety—Reported or in process of adjustment, $1,000.00; resisted, $1,459.26	$2,459 26
Plate glass—Reported or in process of adjustment	879 52
Burglary and theft—Estimated expense of investigation and adjustment of unpaid claims	244 43
Automobile property damage—Reported or in process of adjustment	68 75
Net unpaid claims, except liability claims	$3,651 96
Total unpaid claims and expenses of settlement	15,219 89

Unearned premiums at 50 per cent on risks running one year or less	$123,058 13	
Unearned premiums, pro rata on risks running more than one year	20,199 48	
Total unearned premiums		143,257 61
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident, $277.42; health, $207.28; liability, $9,910.40; fidelity, $1,933.22; surety, $4,023.73; plate glass, $1,195.20; burglary and theft, $162.30; automobile property damage, $111.59		17,821 14
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		5,950 00
Reinsurance		169 54
Interest paid in advance		91 51
Total		$186,161 65
Capital actually paid up in cash	$523,705 00	
Surplus over all liabilities	436,578 64	
Surplus as regards policyholders		960,283 64
Total liabilities		$1,146,445 29

EXHIBIT OF PREMIUMS.

	Accident.	Health.	Liability.
In force December 31, 1910			$4,558 04
Written or renewed during the year	$1,227 65	$630 75	87,346 44
Totals	$1,227 65	$630 75	$91,904 48
Deduct expirations and cancellations			15,846 38
Balance	$1,227 65	$630 75	$76,058 10
Deduct reinsured policies	75 58	26 96	
Net in force December 31, 1911	$1,152 07	$603 79	$76,058 10

	Plate glass.	Burglary and theft.	Automobile property damage.
In force December 31, 1910	$6,151 32	$1,864 12	$8,222 92
Written or renewed during the year	19,124 10	3,944 95	6,916 44
Totals	$25,275 42	$5,809 07	$15,139 36
Deduct expirations and cancellations	9,399 55	2,130 05	11,351 46
Net in force December 31, 1911	$15,875 87	$3,679 02	$3,787 90

	Surety.	Fidelity.
In force December 31, 1910	$63,847 11	$27,132 40
Written or renewed during the year	121,124 71	66,742 94
Totals	$184,971 82	$93,875 34
Deduct expirations and cancellations	71,284 10	32,183 35
Balance	$113,687 72	$61,691 99
Deduct reinsured policies	2,557 04	2,488 10
Net in force December 31, 1911	$111,130 68	$59,203 89
Amount at risk December 31, 1911	$15,237,931 40	$14,250,891 03

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Accident	$693 25	$117 85
Health	288 75	
Liability	40,981 25	721 38
Fidelity	2,564 41	
Surety	5,639 85	
Plate glass	1,291 51	59 90
Automobile property damage	1,059 03	2 15

STANDARD ACCIDENT INSURANCE COMPANY.

Penobscot Building, Detroit, Michigan.

(Incorporated May 29, 1884. Commenced business in California November 12, 1894.)

Lem W. Bowen, President. E. A. Leonard, Secretary.

Agent for service in California: C. F. Briggs, San Francisco.

CAPITAL.

Capital stock paid up in cash	$500,000 00	
Amount of ledger assets December 31st of previous year		$3,793,523 44

INCOME.

Accident—Gross premiums written and renewed during the year, $1,434,481.75; deduct reinsurance, $16,337.35; return premiums on policies canceled, $56,172.27; premiums on policies not taken, $223,394.78: Total deductions, $295,904.40		$1,138,577 35
Health—Gross premiums written and renewed during the year, $204,874.38; deduct return premiums on policies canceled, $5,870.33; premiums on policies not taken, $47,116.82: Total deductions, $52,987.15		151,887 23
Liability—Gross premiums written and renewed during the year, $1,552,924.13; deduct reinsurance, $7,000.42; return premiums on policies canceled, $92,997.31; premiums on policies not taken, $181,786.33: Total deductions, $281,784.06		1,271,140 07
Automobile property damage—Gross premiums written and renewed during the year, $146,950.60; deduct return premiums on policies canceled, $12,119.80; premiums on policies not taken, $18,172.22: Total deductions, $30,292.02		116,658 58
Workmen's collective—Gross premiums written and renewed during the year, $40,798.67; deduct return premiums on policies canceled, $153.09; premiums on policies not taken, $1,663.30: Total deductions, $1,816.39		38,982 28
Total net premiums		$2,717,245 51
Policy fees required or represented by applications		39,033 00
Interest on mortgage loans, $15,568.08; collateral loans, $1,687.50	$17,255 58	
Bonds and dividends on stocks, $139,897.05; from other sources, $1,948.03	141,845 08	
Total interest		159,100 66
Profit on sale or maturity of ledger assets		1,942 90
Total income		$2,917,322 07
Sum		$6,710,845 51

DISBURSEMENTS.

Accident—Gross amount paid for losses, $539,186.85; deduct reinsurance, $11,103.45	$528,083 40
Health—Gross amount paid for losses	57,245 85
Liability—Gross amount paid for losses	529,856 49
Automobile property damage—Gross amount paid for losses	46,406 90
Workmen's collective—Gross amount paid for losses	20,629 30
Total net amount paid policyholders for losses	$1,182,221 94
Investigation and adjustment of claims	181,644 86
Policy fees retained by agents	39,033 00
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	728,916 66
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	146,595 80
Salaries, traveling and all other expenses of agents not paid by commissions	141,896 56

Inspections (other than medical and claim)	$23,841 82
Rents	9,020 00
Repairs and expenses (other than taxes) on real estate	5 00
State taxes on premiums	48,079 68
Insurance Department licenses and fees	9,875 54
All other licenses, fees and taxes	11,386 56
Advertising	19,206 15
Printing and stationery	26,995 01
Postage, telegraph, telephone and express	17,788 06
Furniture and fixtures	1,619 62
Stockholders for interest or dividends	70,000 00
Sundry expenses	13,892 31
Agents' balances charged off	1,333 01
Decrease in book value of ledger assets	8,978 95
Total disbursements	$2,682,330 53
Balance	$4,028,514 98

LEDGER ASSETS.

Mortgage loans on real estate (first liens)			$229,775 00
Loans secured by pledge of bonds, stocks or other collaterals			50,000 00
Book value of bonds and stocks			3,199,123 03
Cash in office			6,283 55
Deposits in trust companies and banks not on interest			137,625 61
Gross premiums in course of collection on policies or renewals:	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Accident	$183,797 59	$15,978 05	
Health	27,384 16	1,997 98	
Liability	137,917 16	9,018 00	
Automobile property damage	15,429 46	1,019 85	
Workmen's collective	12,779 88	385 66	
Totals	$377,308 25	$28,399 54	405,707 79
Ledger assets as per balance			$4,028,514 98

Non-Ledger Assets.

Interest due and accrued on:		
Mortgages	$2,495 24	
Bonds	27,693 38	
Collateral loans	612 50	
		30,801 12
Market value of bonds and stocks over book value		7,738 47
Gross assets		$4,067,054 57

Deduct Assets Not Admitted.

Premiums in course of collection written prior to October 1, 1911	$28,399 54	
Collateral loan	8,200 00	
Total		36,599 54
Total admitted assets		$4,030,455 03

LIABILITIES.

Losses and claims:	
Accident—Adjusted, $37,118.42; reported or in process of adjustment, $132,855.36; resisted, $49,160.00; net unpaid claims, except liability claims, $219,133.78; estimated expense of investigation and adjustment of unpaid claims, $4,267.25	$223,401 03
Health—Adjusted, $1,537.85; reported or in process of adjustment, $13,265.65; net unpaid claims, except liability claims, $14,803.50; estimated expense of investigation and adjustment of unpaid claims, $196.50	15,000 00

Amount brought forward		$238,401 03
Automobile property damage—Adjusted, $3,957.88; reported or in process of adjustment, $15,956.08; net unpaid claims, except liability claims, $19,913.96; estimated expense of investigation and adjustment of unpaid claims, $328.16		20,242 12
Workmen's collective—Adjusted, $396.45; reported or in process of adjustment, $5,507.37; net unpaid claims, except liability claims, $5,903.82; estimated expense of investigation and adjustment of unpaid claims, $108.52		6,012 34
Net unpaid claims, except liability claims		$264,655 49
Special reserve for unpaid liability losses		486,220 20
Total unpaid claims and expenses of settlement		$750,875 69
Unearned premiums at 50 per cent on risks running one year or less	$1,027,872 09	
Unearned premiums pro rata on risks running more than one year	25,371 00	
Total unearned premiums		1,053,243 09
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident, $55,013.61; health, $8,862.93; liability, $32,824.38; automobile property damage, $3,795.54; workmen's collective, $3,233.30		103,729 76
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		6,243 18
Estimated amount hereafter payable for federal, state and other taxes, based upon the business of the year of this statement		57,369 06
Return premiums		16,978 88
Reinsurance		2,238 19
Advance premiums (100 per cent)		4,198 89
Additional liability reserve to be used as required		135,000 00
Total amount of all liabilities except capital		$2,129,876 74
Capital actually paid up in cash	$500,000 00	
Surplus over all liabilities	1,400,578 29	
Surplus as regards policyholders		1,900,578 29
Total liabilities		$4,030,455 03

EXHIBIT OF PREMIUMS.

	Accident.	Health.	Liability.
In force December 31, 1910	$818,668 73	$131,504 39	$989,560 26
Written or renewed during the year	1,434,481 75	204,874 38	1,552,924 13
Totals	$2,253,150 48	$336,378 77	$2,542,484 39
Deduct expirations and cancellations	1,471,094 30	194,894 30	1,460,127 57
Balance	$782,056 18	$141,484 47	$1,082,356 82
Deduct reinsured policies	16,047 44	----------	6,678 80
Net in force December 31, 1911	$766,008 74	$141,484 47	$1,075,678 02

	Automobile property damage.	Workmen's collective.
In force December 31, 1910	$77,477 81	$21,069 70
Written or renewed during the year	146,950 60	40,798 67
Totals	$224,428 41	$61,868 37
Deduct expirations and cancellations	114,497 87	44,266 81
Net in force December 31, 1911	$109,930 54	$17,601 56

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Accident	$59,076 17	$51,603 29
Health	10,032 65	2,744 45
Liability	1,922 82	225 00
Totals	$71,031 64	$54,572 74

STANDARD TITLE INSURANCE COMPANY.

No. 210 Montgomery street, San Francisco, California.

(Incorporated Auust 3, 1906. Commenced business in California January 2, 1907.)

LIVINGSTON JENKS, President. CLEMENT ROCKHILL, Secretary.

CAPITAL.

Capital stock paid up in cash	$145,400 00	
Amount of ledger assets December 31st of previous year		$226,426 85

INCOME.

Total net premiums, title		$29,932 02
Interest on mortgage loans	$4,999 92	
Interest on deposits	1,164 76	
Total interest		6,164 68
Reports on title not insured		465 00
Agents' balances previously charged off		36 93
Total income		$6,666 61
Sum		$263,025 48

DISBURSEMENTS.

Commissions or brokerage to agents (less amount received on return premiums and reinsurance)	$3,109 50
Rents	3,986 00
Advertising	676 82
Printing and stationery	855 44
Postage, telegraph, telephone and express	77 85
Miscellaneous expenses	6,995 54
Refunds on premiums	67 00
Escrow	13,067 98
Addition to plant	18,079 04
Agents' balances charged off	36 96
Total disbursements	$46,952 13
Balance	$216,073 35

LEDGER ASSETS.

Mortgage loans on real estate, first liens		$100,000 00
Cash in office		5,183 09
Deposits in trust companies and banks not on interest		1,894 62
Deposits in trust companies and banks on interest		24,774 86
Plant	$80,515 20	
Furniture and fixtures	3,376 30	
Agents' balance, credit, $52.42; debit, $381.70	329 28	
Total		84,220 78
Ledger assets as per balance		$216,073 35

Deduct Assets Not Admitted.

Furniture and fixtures	$3,376 30	
Plant	7,815 20	
Agents' balances	381 70	
Total		$11,573 20
Total admitted assets		$204,500 15

LIABILITIES.

Reserve		$14,540 00
Escrow funds on hand		14,232 93
Total		$28,772 93
Capital actually paid up in cash	$145,400 00	
Surplus over all liabilities	30,327 22	
Surplus as regards policyholders		175,727 22
Total liabilities		$204,500 15

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

Gross premiums less return premiums on risks written or renewed during the year: Title	$29,932 02

TITLE INSURANCE AND GUARANTY COMPANY.

No. 250 Montgomery street, San Francisco.

(Incorporated June 7, 1902. Commenced business in California August 1, 1902.)

O. A. Rouleau, President. H. B. Montague, Secretary.

CAPITAL.

Capital stock paid up in cash	$365,500 00	
Amount of ledger assets December 31st of previous year		$501,460 37
Increase of paid-up capital during the year		3,700 00
Extended at		$505,160 37

INCOME.

Net premiums: Title		$49,532 85
Interest on mortgage loans	$6,456 62	
Bonds and dividends on stocks, $2,810.50; from other sources, $1,030.68	3,841 18	
Rents	4,782 00	
Total interest and rents		15,079 80
From all other sources: Fees on abstracts, contingent abstracts, suits, and reports, $7,115.75; conveyancing (drawing instruments), $340.90; overs and shorts, $978.67		8,435 32
Total income		$73,047 97
Sum		$578,208 34

DISBURSEMENTS.

Net amount paid policyholders for losses: Title	$855 88
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	1,673 50
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	29,891 10
Rents	6,000 00
Sinking fund (building account)	1,800 00
Taxes on real estate	2,356 01
State taxes on premiums	75 00
All other licenses, fees and taxes	129 38
Legal expenses	4,800 00
Advertising	348 05
Printing and stationery	1,449 95
Postage, telegraph, telephone and express	538 35
Depreciation	671 65

Stockholders for interest or dividends	$21,843 50
Other disbursements: Fire insurance, $201.90; building expense, $279.95; Panama-Pacific International Exposition, $100.00; general expense, $1,902.32	2,484 17
Suit and suspense	2,026 61
Loss on sale or maturity of ledger assets: Trust funds (old and new)	14,286 76
Total disbursements	$91,229 91
Balance	$486,978 43

LEDGER ASSETS.

Book value of real estate	$515 00
Mortgage loans on real estate (first liens)	99,995 00
Book value of bonds and stocks	25,629 00
Cash in office	12,952 75
Deposits in trust companies and banks not on interest	15,490 61
Deposits in trust companies and banks on interest	27,654 73
Bills receivable	775 00
Other ledger assets: Deposit account exceptions, $350.00; suspense taxes, $51.23; recording, $129.38; furniture and fixtures, $3,805.91; plant and building, $299,629.82	303,966 34
Ledger assets as per balance	$486,978 43

Deduct Assets Not Admitted.

Furniture and fixtures	3,805 91
Total admitted assets	$483,172 52

LIABILITIES.

Surplus		$50,000 00
Suspense		847 31
Suit account		305 00
Trust funds		48,598 20
Total		$99,750 51
Capital actually paid up in cash	$365,500 00	
Surplus over all liabilities	21,727 92	
Surplus as regards policyholders		387,227 92
Total liabilities		$486,978 43

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

Gross premiums, less return premiums on risks written or renewed during the year: Title	$49,532 85
Gross losses paid	855 88

TITLE INSURANCE AND TRUST COMPANY.

No. 201 New High street, Los Angeles, California.

(Incorporated December 20, 1893. Commenced business in California January 15, 1894.)

WILLIAM H. ALLEN, JR., President. O. P. CLARK, Secretary.

CAPITAL.

Capital stock paid up in cash	$500,000 00

INCOME.

Guarantee, $410,422.29; policies, $7,412.50		$417,834 79
Interest on mortgage loans, $12,401.79; collateral loans, $810.85	$13,212 64	
Bonds and dividends on stocks, $18,420.98; interest on bank deposits, $7,968.92	26,389 90	
		39,602 54
From all other sources: Real estate profits on sales, $20,000.00; reclamations of bonds, $25,905.00; miscellaneous earnings, $7,236.80; advances received to pay taxes of customers, $1,471.59		54,613 39
Total income		$512,050 72
Sum		$1,663,749 44

DISBURSEMENTS.

Losses on title guarantees	$1,172 40
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees, including attorneys	220,687 76
Rents	2,700 00
Taxes on real estate	1,425 30
State taxes on premiums	4,813 32
Insurance Department licenses and fees	20 00
All other licenses, fees and taxes: State license tax, $75.00; internal revenue, $2,619.14; franchise tax, $12.50	2,706 64
Advertising	1,531 12
Printing and stationery	13,136 22
Stockholders for interest or dividends	75,000 00
Other disbursements: City, county and state taxes, other than real estate, $2,515.85; miscellaneous expense, $33,967.36	36,483 21
Deduction in ledger value: Real estate, $17,531.06; property (abstract plant), $75,000.00	92,531 06
Total disbursements	$452,205 03
Balance	$1,211,544 41

LEDGER ASSETS.

Book value of real estate	$91,749 99
Mortgage loans on real estate (first liens)	162,680 00
Loans secured by pledge of bonds, stocks or other collaterals	36,200 00
Book value of bonds and stocks (Schedule "D")	300,544 00
Deposits in trust companies and banks not on interest	65,402 91
Deposits in trust companies and banks on interest	187,967 51
Bills receivable	175,000 00
Name and property abstract plant	100,000 00
Mortgage with State Treasurer	92,000 00
Ledger assets as per balance	$1,211,544 41

Non-Ledger Assets.

Interest due and accrued on:		
Mortgages	$2,916 94	
Bonds	4,106 27	
Collateral loans	522 14	
		7,545 35
Gross assets		$1,219,089 76

Deduct Assets Not Admitted.

Non-ledger assets above	7,545 35
Total admitted assets	$1,211,544 41

LIABILITIES.

Capital actually paid up in cash	$500,000 00
Surplus over all liabilities	711,544 41
Total liabilities	$1,211,544 41

EXHIBIT OF PREMIUMS.

	Title.
In force December 31, 1910	$18,968,473 34
Written or renewed during the year	2,215,160 00
Total	$21,183,633 34
Deduct expirations and cancellations	2,728,150 00
Balance	$18,455,483 34
Net in force December 31, 1911 (being net premiums collected from 1896 to December 31, 1911)	$123,926 66

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

Gross premiums less return premiums on risks written or renewed during the year: Title	*$417,834 79
Gross losses paid	*1,172 40

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*Includes guarantee fees.

THE TITLE GUARANTY AND SURETY COMPANY.

516 Spruce street, Scranton, Pennsylvania.

(Incorporated February 20, 1901. Commenced business in California July 15, 1903.)

L. A. Watres, President. J. H. Law, Secretary.

Agent for service in California: Chas. F. Manness, San Francisco.

CAPITAL.

Capital stock paid up in cash	$712,820 00	
Amount of ledger assets December 31st of previous year		$2,253,338 73
Decrease of paid up capital during the year	$500,000 00	
New capital paid in during year	212,820 00	
		287,180 00
Extended at		$1,966,158 73

INCOME.

Surety—Gross premiums written and renewed during the year, $1,298,473.12; deduct reinsurance, $202,780.10; return premiums on policies canceled, $109,163.19: Total deductions, $311,943.29		$986,529 83
Title—Gross premiums written and renewed during the year		1,770 96
Total net premiums		$988,300 79
Interest on mortgage loans, $5,009.94; collateral loans, $94.64	$5,104 58	
Bonds and dividends on stocks, $44,181.92; from other sources, $2,442.08	46,624 00	
Rents	9,500 00	
Total interest and rents		61,228 58
By decrease of capital stock	$500,000 00	
Title department search fees	2,885 74	
		502,885 74
Agents' balances previously charged off		30 27
Profit on sale or maturity of ledger assets		496 38
Total income		$1,552,941 76

DISBURSEMENTS.

Surety—Gross amount paid for losses, $495,110.85; deduct salvage, $96,295.05	$398,815 80
Title	450 00
Total net amount paid policyholders for losses	$399,265 80
Investigation and adjustment of claims	62,608 72
Commissions or brokerage to agents (less amount received on return premiums and reinsurance)	174,896 81
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	95,096 13
Salaries, traveling and all other expenses of agents not paid by commissions	189,057 15
Rents	13,666 65
Repairs and expenses (other than taxes) on real estate	3,509 59
Taxes on real estate	1,357 18
State taxes on premiums	14,804 76
Insurance Department licenses and fees	11,406 77
All other licenses, fees and taxes	5,598 55
Legal expenses	884 80
Advertising	9,362 27
Printing and stationery	19,720 07
Postage, telegraph, telephone and express	27,592 14
Furniture and fixtures	9,224 26
Stockholders for interest or dividends	25,000 00
General expenses	32,517 14
Title department expenses	4,248 11
Agents' balances charged off	2,475 39
Loss on sale or maturity of ledger assets	2,995 74
Decrease in book value of ledger assets	180,620 87
Total disbursements	$1,285,908 90
Balance	$2,233,191 59

LEDGER ASSETS.

Book value of real estate			$120,204 82
Mortgage loans on real estate, first liens			63,600 00
Book value of bonds and stocks			1,192,660 18
Cash in office			3,558 56
Deposits in trust companies and banks not on interest			16,000 00
Deposits in trust companies and banks on interest			328,249 52
Gross premiums in course of collection on policies or renewals:			
	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Surety	$197,205 89	$129,570 08	
Title	859 55	----------	
Totals	$198,065 44	$129,570 08	327,635 52
Other ledger assets: Advance on contracts (per exhibit), $56,537.28; bills receivable (per exhibit), $54,163.44; real estate, mortgages and judgments (per exhibit), $70,582.27			181,282 99
Ledger assets as per balance			$2,233,191 59

Non-Ledger Assets.

Interest due and accrued on:		
Mortgages	$3,838 61	
Bonds	7,365 44	
		11,204 05
Amount advanced United States Treasury Department in re-examination of company		2,000 00
Gross assets		$2,246,395 64

Gross assets		$2,246,395 64

Deduct Assets Not Admitted.

Premiums in course of collection written prior to October 1, 1911	$129,570 08	
Book value of ledger assets over market value	45,283 93	
Total		174,854 01
Total admitted assets		$2,071,541 63

LIABILITIES.

Losses and claims:		
Surety—Reported or in process of adjustment, $130,810.49; resisted, $245,361.21		$376,174 70
Unearned premiums at 50 per cent on risks running one year or less	$321,657 63	
Unearned premiums, pro rata on risks running more than one year	80,414 40	
Total unearned premiums		402,072 03
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911		37,565 87
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		1,000 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		19,095 39
Reinsurance		46,942 40
Total		$882,847 39
Capital actually paid up in cash	$712,820 00	
Surplus over all liabilities	475,874 24	
Surplus as regards policyholders		1,188,694 24
Total liabilities		$2,071,541 63

EXHIBIT OF PREMIUMS.

	Surety.	Title.
In force December 31, 1910	$915,072 65	$9,166 82
Written or renewed during the year	1,298,473 12	1,770 96
Totals	$2,213,545 77	$10,937 78
Deduct expirations and cancellations	1,179,940 86	----------
Balance	$1,033,604 91	$10,937 78
Deduct reinsured policies	229,460 85	----------
Net in force December 31, 1911*	$804,144 06	$10,937 78

BUSINESS IN CALIFORNIA DURING 1911.

Gross premiums less return premiums on risks written or renewed during the year: Surety	$40,528 22
Gross losses paid	9,876 13

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*Amount at risk December 31, 1911, $169,712,345.45.

TITLE GUARANTEE AND TRUST COMPANY.

Los Angeles, California.

(Incorporated and commenced business in California October 28, 1895.)

John D. Pope, President. L. C. Brand, Secretary.

CAPITAL.

INCOME.

Gross premiums written and renewed during the year: Title		$220,425 00
Interest on mortgage loans, $12,137.24; collateral loans, $7,040.72	$19,177 96	
Bonds and dividends on stocks, $19,774.80; from other sources, $180.75	19,955 55	
		39,133 51
From all other sources: Escrow fees, $29,699.37; trustee's fees, $15,905.43; commissions, $1,877.93		47,482 73
Total income		$307,041 24
Sum		$1,154,184 13

DISBURSEMENTS.

Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	$128,618 65
Rents	8,269 96
State taxes on premiums	3,449 88
Insurance Department licenses and fees	20 00
All other licenses, fees and taxes	1,581 60
Legal expenses	1,012 00
Printing and stationery	6,962 56
Postage, telegraph, telephone and express	1,300 30
Stockholders for interest or dividends	30,000 00
Gas and electric light	884 17
Sundry expenses	9,745 08
Rebates	1,774 49
Insurance, $114.95; interest on deposits, $4,027.60	4,142 55
Decrease in book value of ledger assets	27,436 88
Total disbursements	$225,198 12
Balance	$928,986 01

LEDGER ASSETS.

Mortgage loans on real estate	$188,795 86
Loans secured by pledge of bonds, stocks or other collaterals	117,230 33
Book value of bonds and stocks (Schedule "D")	435,520 00
Cash in office	11,191 31
Deposits in trust companies and banks not on interest	97,748 51
Deposits in trust companies and banks on interest	3,500 00
Abstract plant	75,000 00
Ledger assets as per balance	$928,986 01

Non-Ledger Assets.

Interest due and accrued on:		
Mortgages	$2,590 57	
Bonds	4,108 75	
Collateral loans	544 25	
		7,243 57
Gross assets		$936,229 58

LIABILITIES.

Deposits		$200,000 00
Reserve		2,000 00
Total amount of all liabilities except capital		$202,000 00
Capital actually paid up in cash	$200,000 00	
Surplus over all liabilities	534,229 58	
Surplus as regards policyholders		734,229 58
Total liabilities		$936,229 58

EXHIBIT OF PREMIUMS.

	Title.
In force December 31, 1910	$3,729 00
Written or renewed during the year	220,425 00
Net in force December 31, 1911	$224,154 00

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

Gross premiums, less return premiums on risks written or renewed during the year: Title	$224,154 00

UNITED STATES CASUALTY COMPANY.

No. 141 Broadway, New York City, New York.

(Incorporated May 2, 1895. Commenced business in California May 3, 1895.)

EDSON S. LOTT, President. D. G. LUCKETT, Secretary.

Agent for service in California: JAMES C. HAYBURN, San Francisco.

CAPITAL.

Capital stock paid up in cash	$500,000 00	
Amount of ledger assets December 31st of previous year		$2,732,344 11

INCOME.

Accident—Gross premiums written and renewed during the year, $717,928.75; deduct reinsurance, $23,749.99; return premiums on policies canceled, $21,859.80; premiums on policies not taken, $126,903.29: Total deductions, $172,513.08	$545,415 67
Health—Gross premiums written and renewed during the year, $316,020.90; deduct reinsurance, $2,371.19; return premiums on policies canceled, $10,107.02; premiums on policies not taken, $71,403.76: Total deductions, $83,881.97	232,138 93
Liability—Gross premiums written and renewed during the year, $1,499,244.75; deduct reinsurance, $1,073.57; return premiums on policies canceled, $81,285.36; premiums on policies not taken, $476,367.32: Total deductions, $558,726.25	940,518 50
Steam boiler—Gross premiums written and renewed during the year, $54,296.72; deduct reinsurance, $1,346.98; return premiums on policies canceled, $3,396.64; premiums on policies not taken, $13,628.12: Total deductions, $18,371.74	35,924 98
Burglary and theft—Gross premiums written and renewed during the year, $86,691.64; deduct reinsurance, $3,656.96; return premiums on policies canceled, $4,223.94; premiums on policies not taken, $14,292.17: Total deductions, $22,173.07	64,518 57
Sprinkler—Gross premiums written and renewed during the year, $42,097.14; deduct reinsurance, $2,333.32; return premiums on policies canceled, $6,085.60; premiums on policies not taken, $13,794.20: Total deductions, $22,213.12	19,884 02
Automobile property damage—Gross premiums written and renewed during the year, $15,671.22; deduct return premiums on policies canceled, $568.31; premiums on policies not taken, $3,825.50: Total deductions, $4,393.81	11,277 41
Workmen's collective—Gross premiums written and renewed during the year, $10,436.24; deduct return premiums on policies canceled, $422.18; premiums on policies not taken, $1,360.00: Total deductions, $1,782.18	8,654 06
Total net premiums	$1,858,332 14

Amount brought forward		$1,858,332 14
Interest on mortgage loans	$13,069 37	
Bonds and dividends on stocks, $99,208.12; from other sources, $1,558.01	100,766 13	
		113,835 50
Recovery of items previously charged to profit and loss		372 82
Profit on sale or maturity of ledger assets		13,500 63
Total income		$1,986,041 09
Sum		$4,718,385 20

DISBURSEMENTS.

Accident—Gross amount paid for losses, $272,065.46; deduct reinsurance, $21,873.94	$250,191 52
Health—Gross amount paid for losses, $106,671.40; deduct reinsurance, $2,102.83	104,568 57
Liability—Gross amount paid for losses	522,066 79
Steam boiler—Gross amount paid for losses, $1,126.00; deduct reinsurance, $143.24	982 76
Burglary and theft—Gross amount paid for losses, $32,349.84; deduct reinsurance, $4,114.49	28,235 35
Sprinkler—Gross amount paid for losses, $7,889.66; deduct reinsurance, $149.01	7,740 65
Automobile property damage—Gross amount paid for losses	1,592 31
Workmen's collective—Gross amount paid for losses	3,605 76
Total	$918,983 71
Investigation and adjustment of claims	142,076 63
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	512,990 02
Salaries, fees and all other compensation of officers, directors, trustees and home office employees	128,998 77
Salaries, traveling and all other expenses of agents not paid by commissions	54,633 75
Inspections (other than medical and claim)	23,261 68
Rents	20,877 93
Taxes on real estate	619 55
State taxes on premiums	28,628 13
Insurance department licenses and fees	6,240 55
All other licenses, fees and taxes	2,731 19
Legal expenses	1,123 00
Advertising	3,753 20
Printing and stationery	32,613 03
Postage, telegraph, telephone and express	13,023 88
Furniture and fixtures	6,641 50
Stockholders for interest or dividends	49,952 50
Other disbursements: Extended free accident insurance, $1,338.88; miscellaneous, $4,871.93; profit and loss, $728.50; fees of auditor, $3,104.74; interest on temporary loan, $75.00	10,119 05
Loss on sale or maturity of ledger assets	419 28
Total disbursements	$1,957,687 35
Balance	$2,760,697 85

LEDGER ASSETS.

Book value of real estate	$4,500 00
Mortgage loans on real estate, first liens	277,000 00
Book value of bonds and stocks	2,193,048 23
Cash in office	1,458 35
Deposits in trust companies and banks not on interest	37,810 29
Deposits in trust companies and banks on interest	22,290 44
Gross premiums in course of collection on policies or renewals:	

	Issued on or after October 1, 1911.	
Accident	$56,330 81	
Health	27,837 37	
Liability	111,971 03	
Steam boiler	8,690 71	
Burglary and theft	10,522 65	
Sprinkler	2,079 47	
Automobile property damage	1,185 03	
Workmen's collective	790 63	
Total		219,407 70
Cash in the hands of resident managers and adjusters		4,200 00
Agents' ledger balances, debits, $1,697.36; credits, $714.52		982 84
Ledger assets as per balance		$2,760,697 85

Non-Ledger Assets.

Interest due and accrued on:		
Mortgages	$3,561 13	
Bonds	9,589 16	
		13,150 29
Gross assets		$2,773,848 14

Deduct Assets Not Admitted.

Book value of ledger assets over market value	$123,193 23	
Cash in the hands of resident managers and adjusters	4,200 00	
Agents' ledger balances	1,697 36	
		129,090 59
Total admitted assets		$2,644,757 55

LIABILITIES.

Losses and claims:		
Accident—Reported or in process of adjustment, $24,521.00; resisted, $36,518.00; net unpaid claims except liability claims, $61,039.00; estimated expense of investigation and adjustment of unpaid claims, $6,781.00		$67,820 00
Health—Reported or in process of adjustment, $12,645.00; resisted, $1,260.00; net unpaid claims except liability claims, $13,905.00; estimated expense of investigation and adjustment of unpaid claims, $1,545.00		15,450 00
Burglary and theft—Reported or in process of adjustment, $2,345.00; resisted, $180.00; net unpaid claims except liability claims, $2,525.00; estimated expense of investigation and adjustment of unpaid claims, $280.00		2,805 00
Automobile property damage—Reported or in process of adjustment, $1,530.00; net unpaid claims except liability claims, $1,530.00; estimated expense of investigation and adjustment of unpaid claims, $170.00		1,700 00
Workmen's collective—Reported or in process of adjustment, $540.00; estimated expense of investigation and adjustment of unpaid claims, $60.00		600 00
Net unpaid claims, except liability claims		$88,375 00
Special reserve for unpaid liability losses		116,845 00
Total unpaid claims and expenses of settlement		$205,220 00
Unearned premiums at 50 per cent on risks running one year or less	$707,871 13	
Unearned premiums, pro rata on risks running more than one year	122,241 23	

Amount brought forward		$1,035,332 36
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident, $15.772.63; health, $7,794.46; liability, $31,351.89; steam boiler, $2,433.40; burglary and theft, $2,946.34; sprinkler, $582.25; automobile property damage, $331.81; workmen's collective, $221.38		61,434 16
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued		7,000 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		30,000 00
Dividends declared and unpaid to stockholders		12,725 00
Reinsurance		8,114 14
Additional special reserve for claims (including claims incurred in 1911, reported in 1912)		100,000 00
Contingency fund		78,614 71
Reserve for reinsurance in companies not admitted in New York		11,537 18
Total amount of all liabilities except capital		$1,344,757 55
Capital actually paid up in cash	$500,000 00	
Surplus over all liabilities	800,000 00	
Surplus as regards policyholders		1,300,000 00
Total liabilities		$2,644,757 55

EXHIBIT OF PREMIUMS.

	Accident.	Health.	Liability.
In force December 31, 1910	$510,179 16	$201,491 32	$717,978 91
Written or renewed during the year	717,928 75	316,020 90	1,499,244 75
Totals	$1,228,107 91	$517,512 22	$2,217,223 66
Deduct expirations and cancellations	743,684 95	321,500 47	1,417,677 30
Balance	$484,422 96	$196,011 75	$799,546 36
Deduct reinsured policies	10,114 07	3,105 34	881 97
Net in force December 31, 1911	$474,308 89	$192,906 41	$798,664 39

	Steam boiler.	Burglary and and theft.	Automobile property damage.
In force December 31, 1910	$73,232 94	$81,159 49	---------
Written or renewed during the year	54,296 72	86,691 64	$15,671 22
Totals	$127,529 66	$167,851 13	$15,671 22
Deduct expirations and cancellations	48,096 09	80,345 68	4,934 90
Balance	$79,433 57	$87,505 45	$10,736 32
Deduct reinsured policies	150 50	6,050 29	---------
Net in force December 31, 1911	$79,283 07	$81,455 16	$10,736 32

	Sprinkler.	Workmen's collective.
In force December 31, 1910	$38,643 77	$5,527 08
Written or renewed during the year	42,097 14	10,436 24
Totals	$80,740 91	15,963 32
Deduct expirations and cancellations	53,762 43	11,540 74
Balance	$26,978 48	$4,422 58
Deduct reinsured policies	10 00	---------
Net in force December 31, 1911	$26,968 48	$4,422 58

Total dividends declared from organization: Cash, $267,500.00; stock, $100,000.00	$367,500 00

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Accident	$5,372 89	$5,335 37
Health	1,353 93	380 26
Liability	11,592 76	1,292 19
Steam boiler	415 00	
Burglary and theft	380 95	
Sprinkler	1,084 21	
Automobile property damage	294 75	12 77
Totals	$20,494 49	$7,020 59

UNITED STATES FIDELITY AND GUARANTY COMPANY.

Calvert street, Baltimore, Maryland.

(Incorporated March 19, 1896. Commenced business in California June 10, 1897.)

JOHN R. BLAND, President. GEO. R. COLLINS, Secretary.

Agent for service in California: H. V. D. JOHNS, San Francisco.

CAPITAL.

Capital stock paid up in cash	$2,000,000 00	
Amount of ledger assets December 31st of previous year		$6,258,861 55

INCOME.

Accident—Gross premiums written and renewed during the year, $102,433.17; deduct reinsurance, $7,541.63; return premiums on policies canceled, $3,867.72; premiums on policies not taken, $11,313.28: Total deductions, $22,722.63	$79,710 54
Health—Gross premiums written and renewed during the year, $43,116.30; deduct reinsurance, $3,372.92; return premiums on policies canceled, $2,375.30; premiums on policies not taken, $5,260.22: Total deductions, $11,008.44	32,107 86
Liability—Gross premiums written and renewed during the year, $1,067,116.46; deduct reinsurance, $1,439.79; return premiums on policies canceled, $78,140.70; premiums on policies not taken, $196,355.81: Total deductions, $275,936.30	791,180 16
Fidelity and surety—Gross premiums written and renewed during the year, $4,022,679.49; deduct reinsurance, $188,724.36; return premiums on policies canceled, $286,034.22; premiums on policies not taken, $123,324.12: Total deductions, $598,082.70	3,424,596 79
Plate glass—Gross premiums written and renewed during the year, $72,334.90; deduct return premiums on policies canceled, $3,922.86; premiums on policies not taken, $10,339.41: Total deductions, $14,262.27	58,072 63
Steam boiler—Gross premiums written and renewed during the year, $17,699.89; deduct reinsurance, $288.47; return premiums on policies canceled, $1,508.26; premiums on policies not taken, $2,935.42: Total deductions, $4,732.15	12,967 74
Burglary and theft—Gross premiums written and renewed during the year, $324,033.41; deduct reinsurance, $22,708.99; return premiums on policies canceled, $19,348.63; return premiums on policies not taken, $25,074.69: Total deductions, $67,132.31	256,901 10
Fly wheel—Gross premiums written and renewed during the year,	

Amount brought forward		$4,657,222 04
Automobile property damage—Gross premiums written and renewed during the year, $107,134.31; return premiums on policies canceled, $8,350.26; premiums on policies not taken, $21,599.90: Total deductions, $29,950.16		77,184 15
Workmen's collective—Gross premiums written and renewed during the year, $7,191.95; return premiums on policies canceled, $688.25; premiums on policies not taken, $1,922.50: Total deductions, $2,610.75		4,581 20
Total net premiums		$4,738,987 39
Inspections		235 62
Interest on mortgage loans, $150.00; collateral loans, $3,291.11	$3,441 11	
Bonds and dividends on stocks, $166,180.06; from other sources, $5,216.94	171,397 00	
Rents	54,972 31	
Total interest and rents		229,810 42
From all other sources: Department guaranteed attorneys, net, $30,693.54; Munich Reinsurance Company reserve account, $3,702.96		34,396 50
Agents' balances previously charged off		2,200 30
Profit on sale or maturity of ledger assets		5,004 35
Total income		$5,010,634.58
Sum		$11,269,496 13

DISBURSEMENTS.

Accident—Gross amount paid for losses, $36,164.62; deduct reinsurance, $823.26	$35,341 36
Health—Gross amount paid for losses, $9,851.57; deduct reinsurance, $1,134.46; salvage, $11.10: Total deductions, $1,145.56	8,706 01
Liability—Gross amount paid for losses, $129,690.59; deduct reinsurance, $1,453.50; salvage, $724.95: Total deductions, $2,178.45	127,512 14
Fidelity and surety—Gross amount paid for losses, $1,466,117.39; deduct reinsurance, $14,598.70; salvage, $295,608.35: Total deductions, $310,207.05	1,155,910 34
Plate glass—Gross amount paid for losses, $13,907.40; deduct salvage, $118.62	13,788 78
Burglary and theft—Gross amount paid for losses, $64,426.75; deduct reinsurance, $3,559.36; salvage, $1,325.35: Total deductions, $4,884.71	59,542 04
Automobile property damage—Gross amount paid for losses, $15,719.66; deduct salvage, $436.63	15,283 03
Workmen's collective—Gross amount paid for losses	2,319 47
Total net amount paid policyholders for losses	$1,418,403 17
Investigation and adjustment of claims	136,678 67
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	883,459 59
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	351,181 66
Salaries, traveling and all other expenses of agents not paid by commissions	634,377 98
Medical examiners' fees and salaries	1,546 70
Inspections (other than medical and claim)	18,999 73
Rents	106,058 35
Repairs and expenses (other than taxes) on real estate	18,081 83
Taxes on real estate	9,746 42
State taxes on premiums	71,201 39
Insurance Department licenses and fees	19,633 08
All other licenses, fees and taxes	28,055 10
Legal expenses	51,249 00
Advertising	84,983 85

Printing and stationery	$72,937 94
Postage, telegraph, telephone and express	103,165 94
Furniture and fixtures	43,051 18
Stockholders for interest or dividends	160,000 00
Other disbursements: Interest, $746.75; home office traveling expenses, $13,888.92; general miscellaneous expenses, $15,566.92	30,202 59
Agents' balances charged off	4,647 10
Loss on sale or maturity of ledger assets	2,880 00
Total disbursements	$4,250,541 27
Balance	$7,018,954 86

LEDGER ASSETS.

Book value of real estate			$680,706 91
Mortgage loans on real estate, first liens			3,000 00
Loans secured by pledge of bonds, stocks or other collaterals			70,949 00
Book value of bonds and stocks			4,538,068 14
Cash in office			101,476 36
Deposits in trust companies and banks not on interest			104,368 11
Deposits in trust companies and banks on interest			391,759 96
Gross premiums in course of collection on policies or renewals:	Issued on or after October 1, 1911.	Issued prior to October 1, 1911.	
Accident	$16,591 44	$655 77	
Health	7,092 57	106 10	
Liability	157,771 41	7,575 82	
Fidelity and surety	481,828 96	56,108 90	
Plate glass	17,063 48	425 30	
Steam boiler	3,242 31	75 00	
Burglary and theft	36,389 42	254 34	
Fly wheel	246 90		
Automobile property damage	11,375 28	942 44	
Workmen's collective	988 32		
Totals	$732,590 09	$66,143 67	798,733 76
Due by United States government under contract		$6,276 99	
Advances secured		48,146 75	
Due for subscriptions, department guaranteed attorneys		46,436 97	
Accounts with suspended banks		229,031 91	
			329,892 62
Ledger assets as per balance			$7,018,954 86

Non-Ledger Assets.

Interest due and accrued on:		
Mortgages	$75 00	
Bonds	56,451 32	
Collateral loans	554 92	
Other assets	250 00	
Rents due and accrued	614 67	
		57,945 91
Gross assets		$7,076,900 77

Deduct Assets Not Admitted.

Premiums in course of collection written prior to October 1, 1911	$66,143 67	
Guaranteed attorneys subscriptions, written prior to October 1, 1911	3,249 75	
Book value of ledger assets over market value: Bonds, $209,097.49; stocks, $148.15	209,245 64	
Total		278,639 06

LIABILITIES.

Losses and claims:		
Accident—Reported or in process of adjustment		$5.467 00
Health—Reported or in process of adjustment		1,730 00
Fidelity and surety—Reported or in process of adjustment. $439.029.98; resisted, $443.582.26; net unpaid claims except liability claims, $882,612.24; estimated expense of investigation and adjustment of unpaid claims, $50,000.00		932,612 24
Plate glass—Reported or in process of adjustment		1,185 81
Burglary and theft—Reported or in process of adjustment, $14.648.80; resisted, $899.00; net unpaid claims, except liability claims		15,547 80
Automobile property damage—Reported or in process of adjustment, $4,790.00; resisted, $2,700.00; net unpaid claims, except liability claims		7,490 00
Workmen's collective—Reported or in process of adjustment		1,078 03
Net unpaid claims, except liability claims		$965,110 88
Special reserve for unpaid liability losses		97,462 30
Total unpaid claims and expenses of settlement		$1,062,573 18
Gross premiums (less reinsurances) upon all unexpired excise risks written in New York State running one year or less from date of policy, $61,460.98; unearned premiums 75 per cent	$46.095 73	
Unearned premiums at 50 per cent on risks running one year or less	2,127,386 47	
Unearned premiums, pro rata on risks running more than one year	272,252 75	
Total unearned premiums		2,445.734 95
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1. 1911: Accident, $3.849.21; health. $1.575.48; liability. $31,554.28; fidelity and surety, $92,029.33; plate glass, $4.265.87; steam boiler, $486.35; burglary and theft. $8.662.28; fly wheel. $37.04; automobile property damage, $2.275.06; workmen's collective. $148.25		144.883 15
Salaries. rents. expenses, bills, accounts, fees, etc., due or accrued		10,000 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement		73,724 97
Return premiums		8.691 94
Reinsurance		8.468 89
Munich Reinsurance Company reserve account		21.895 37
Total amount of all liabilities, except capital		$3,775,972 45
Capital actually paid up in cash	$2,000,000 00	
Surplus over all liabilities	1,022,289 26	
Surplus as regards policyholders		3,022.289 26
Total liabilities		$6.798.261 71

EXHIBIT OF PREMIUMS.

	Accident.	Health.	Liability.
In force December 31. 1910	$20.657 69	$10.289 47	$135.040 69
Written or renewed during the year	102.433 17	43.116 30	1,067,116 46
Totals	$123.090 86	$53.405 77	$1.202.157 15
Deduct expirations and cancellations	41.075 47	19.397 71	465.173 29
Balance	$82.015 39	$34.008 06	$736.983 86
Deduct reinsured policies	2,263 21	959 91	96 00
Net in force December 31. 1911	$79.752 18	$33.048 15	$736.887 86

	Plate glass.	Fly wheel.
In force December 31, 1910	$15,984 01	$849 11
Written or renewed during the year	72,334 90	1,877 64
Totals	$88,318 91	$2,726 75
Deduct expirations and cancellations	30,535 26	548 74
Balance	$57,783 65	$2.178 01
Deduct reinsured policies	-----------	196 90
Net in force December 31, 1911	$57,783 65	$1,981 11

	Fidelity and surety.	Steam boiler.
In force December 31, 1910	$3,439,059 23	$6,566 92
Written or renewed during the year	4,022,679 49	17,699 89
Totals	$7,461,738 72	$24,266 81
Deduct expirations and cancellations	3,879,651 06	5,715 14
Balance	$3,582,987 66	$18,551 67
Deduct reinsured policies	123,397 06	31 44
Net in force December 31, 1911	$3,458,690 60	$18,520 23

Amount at risk December 31, 1911 $894,561,257.95

	Burglary and theft.	Automobile property damage.
In force December 31, 1910	$368,727 11	$5,680 77
Written or renewed during the year	324,033 41	107,134 31
Totals	$692,760 52	$112,815 08
Deduct expirations and cancellations	319,352 53	40,275 47
Balance	$373,407 99	$72,539 61
Deduct reinsured policies	18,564 06	------------
Net in force December 31, 1911	$354,843 93	$72,539 61

	Workmen's collective.
In force December 31, 1910	$2,354 75
Written or renewed during the year	7,191 95
Totals	$9,546 70
Deduct expirations and cancellations	2,872 63
Net in force December 31, 1911	$6,674 07

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

	Gross premiums less return premiums on risks written or renewed during the year.	Gross losses paid.
Accident	$4,032 78	$188 38
Health	87 50	------------
Liability	68,207 24	5,837 54
Fidelity and surety	190.789 95	32.949 26
Plate glass	3,263 05	357 86
Steam boiler	749 35	------------
Burglary and theft	11,804 97	3,644 80
Totals	$278,759 84	$42,977 84

UNITED STATES HEALTH AND ACCIDENT INSURANCE COMPANY.

No. 130 North Washington avenue, Saginaw, Michigan.

(Incorporated Dec. 27, 1900. Commenced business in California Sept. 5, 1903.)

J. B. PITCHER, President. J. M. PITCHER, Secretary.

Agent for service in California: JAMES C. HAYBURN, San Francisco.

CAPITAL.

Capital stock paid up in cash	$300,000 00	
Amount of ledger assets December 31st of previous year		$940,634 82

INCOME.

Accident—Gross premiums written and renewed during the year, $691,418.89; deduct reinsurance, $2,856.25; return premiums on policies canceled, $3.175.79; premiums on policies not taken, $80,481.71: Total deductions, $86,613.75		$604.805 14
Health—Gross premiums written and renewed during the year, $429,946.90; deduct reinsurance, $380.37; return premiums on policies canceled, $2,495.27; premiums on policies not taken, $51,661.16: Total deductions, $54,516.80		375,430 10
Total net premiums		$980,235 24
Policy fees required or represented by applications		137,277 00
Interest on mortgage loans, $54.25; collateral loans, $299.17	$353 42	
Bonds and dividends on stocks, $36,276.14; from other sources, $1,087.89	37,364.03	
Total interest		37,717 45
Fees for changing policies		129 92
Agents' balances previously charged off		1,330 02
Increase in book value of ledger assets		50 00
Total income		$1,156,739 63
Sum		$2,097,374 45

DISBURSEMENTS.

Gross amount paid for losses:	
Accident	$319,150 05
Health	174,597 36
Total net amount paid policyholders for losses	$493 747 41
Investigation and adjustment of claims	2.668 79
Policy fees retained by agents	137,277 00
Commissions or brokerage to agents (less amount received on return premiums and reinsurances)	232,343 89
Salaries, fees and all other compensation of officers, directors, trustees, and home office employees	89,106 64
Salaries, traveling and all other expenses of agents not paid by commissions	56,081 83
Medical examiners' fees and salaries	3,326 68
Inspections (other than medical and claim)	553 00
Rents	22,527 29
Repairs and expenses (other than taxes) on real estate leased for home office	386 52
State taxes on premiums	17.874 22
Insurance Department licenses and fees	5,047 75
All other licenses, fees and taxes	2,793 14
Legal expenses	138 00
Advertising	6,684 33
Printing and stationery	8,971 71
Postage, telegraph, telephone and express	17,806 58
Furniture and fixtures	2,885 48

Stockholders for interest or dividends	$36,000 00
Other disbursements: Premium on fidelity bonds of agents, collectors and employees, $2,084.76; subscriptions to insurance periodicals, agencies and associations, $1,519.80; janitors' supplies, $481.51; repairs and insurance on furniture and fixtures, $508.72; office supplies for home office, $1,086.37	5,681 16
Agents' balances charged off	1,172 19
Loss on sale or maturity of ledger assets	6,000 00
Decrease in book value of ledger assets	2,730 87
Total disbursements	$1,151,804 48
Balance	$945,569 97

LEDGER ASSETS.

Mortgage loans on real estate, first liens		$5,000 00
Loans secured by pledge of bonds, stocks or other collaterals		10,000 00
Book value of bonds and stocks		731,128 48
Cash in office		6,015 01
Deposits in trust companies and banks not on interest		40,888 04
Deposits in trust companies and banks on interest		72,222 76
Gross premiums in course of collection on policies or renewals:	Issued on or after October 1, 1911.	
Accident	$44,416 78	
Health	34,898 90	
		79,315 68
Agents' balances		1,000 00
Ledger assets as per balance		$945,569 97

Non-Ledger Assets.

Interest due and accrued on:		
Mortgages	$450 00	
Bonds	13,503 71	
Collateral loans	6 66	
		13,960 37
Market value of bonds and stocks over book value		8,086 85
Gross assets		$967,617 19

Deduct Assets Not Admitted.

Agents' balances as above	1,000 00
Total admitted assets	$966,617 19

LIABILITIES.

Losses and claims:	
Accident—Adjusted, $4,472.69; reported or in process of adjustment, $38,931.55; resisted, $4,397.00; deduct reinsurance, $319.54; net unpaid claims except liability claims, $47,481.70; estimated expense of investigation and adjustment of unpaid claims, $1,751.00	$49,232 70
Health—Adjusted, $566.70; reported or in process of adjustment, $25,960.00; resisted, $885.00; deduct reinsurance, $31.66; net unpaid claims except liability claims, $27,380.04; estimated expense of investigation and adjustment of unpaid claims, $455.00	27,835 04
Total unpaid claims and expenses of settlement	$77,067 74
Unearned premiums at 50 per cent on risks running one year or less	105,287 27
Commissions, brokerage and other charges due or to become due on policies issued subsequent to October 1, 1911: Accident, $15,968.40; health, $12,510.89	27,479 29
Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued	5,000 00
Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement	20,083 72
Reinsurance	500 95

Amount brought forward		$261,229 63
Capital actually paid up in cash	$300,000 00	
Surplus over all liabilities	405,387 56	
Surplus as regards policyholders		705,387 56
Total liabilities		$966,617 19

EXHIBIT OF PREMIUMS.

	Accident.	Health.
In force December 31, 1910	$197,224 30	$51,379 79
Written or renewed during the year	691,418 89	429,846 90
Totals	$888,643 19	$481,326 69
Deduct expirations and cancellations	721,346 78	433,263 24
Balance	$167,296 41	$48,063 45
Deduct reinsured policies	4,240 32	545 00
Net in force December 31, 1911	$163,056 09	$47,518 45

BUSINESS IN THE STATE OF CALIFORNIA DURING 1911.

Gross premiums less return premiums on risks written or renewed during the year: Accident and health	$6,198 72
Gross losses paid	1,173 49

FRATERNAL INSURANCE SOCIETIES.

FRATERNAL INSURANCE SOCIETIES.

GRAND LODGE
ANCIENT ORDER OF UNITED WORKMEN.

W. J. PETERSON, President. C. T. SPENCER, Secretary.

(Incorporated August 14, 1878.)

Home Office: 311 Pacific Building, San Francisco.

INCOME.

Balance from previous year: Reserve, $30,227.20; beneficiary, $11.05; expense, $2,208.38	$32,446 63
All other assessments or premiums—beneficiary	251.052 91
Per capita tax—expense	13,384 61
Other payments by members—expense	256 20
Sale of lodge supplies—expense	515 57
From all other sources: Reserve, $1,334.95; beneficiary, $36,000.00; reserve, $817.78	38,152 73
Total income	$335,808 65

DISBURSEMENTS.

Death claims—beneficiary	$206.670 00
Transfer to reversionary fund—beneficiary	1,192 00
Transfer to general fund—beneficiary	394 40
Other benefits—beneficiary	64,253 90
Total benefits paid	$272,510 30
Commissions and fees paid to deputies and organizers—expense	42 50
Salaries of deputies and organizers	597 50
Salaries of managers or agents not deputies or organizers—extension to lodges	131 15
Salaries of officers and trustees	2,700 00
Other compensation of officers and trustees—adjusting claims	1,925 00
Salaries of office employees	1,984 00
Salaries and fees paid to grand medical examiner	10 50
Salaries and fees paid to subordinate medical examiners	20 00
Traveling and other expenses of officers, trustees and committees—expense	124 95
Rent	900 00
Advertising, printing and stationery	1,348 20
Postage, express, telegraph and telephone	771 57
Lodge supplies	244 10
Official publication	1.100 00
Expense of grand lodge meeting—expense	1.391 00
Legal expense in litigating claims—expense	24 95
Attorney's fees—expense	500 00
Furniture and fixtures—expense	29 75
All other disbursements—reserve	3,813 98
Total disbursements	$319.758 70
Balance	$16.039 95

LEDGER ASSETS.

Deposited in banks (not on interest)	16.039 95

LIABILITIES.

Death claims due and unpaid (9)	$12,500 01	
Present value of deferred death and disability claims payable in installments	319,619 73	
Total death claims		$332,119 74
Borrowed from reserve fund		30,000 00
Total liabilities		$362,119 74

EXHIBIT OF CERTIFICATES.

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	3,998	$6,195,800 00
Benefit certificates written during the year	10	9,500 00
Benefit certificates received by transfer during the year	222	342,000 00
Totals	4,230	$6,547,400 00
Deduct terminated or decreased during the year	807	1,279,500 00
Total benefit certificates in force December 31, 1911	3,423	$5,267,900 00

EXHIBIT OF DEATH CLAIMS.

California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	218	$345,465 84
Claims (face value) incurred during the year	150	244,200 00
Total		$589,665 84
Claims paid during the year		255,846 10
Balance		$333,819 74
Saved by compromising or scaling down claims during the year		1,700 00
Claims unpaid December 31, 1911		$332,119 74

AMERICAN NOBLES.

V. A. Young, President. I. E. Lee, Secretary.

(Incorporated December 31, 1897. Commenced business March 2, 1898.)

Home Office: 127 East Fourth street, Waterloo, Iowa.

Balance from previous year: Mortuary, $1,052.23; reserve, $34,502.10; expense, $1,682.88	$37,327 21

INCOME.

Assessments or premiums during first twelve months of membership of which all or an extra percentage is used for expenses—mortuary, $6,543.22; expense, $19,629.64	$26,172 86
All other assessments or premiums—mortuary, $125,271.73; expense, $31,317.93	156,589 66
Dues and per capita tax—expense	27,904 61
Special tax for supreme council expense—expense	1,830 18
Total received from members	$212,497 31
Deduct payments returned to applicants and members—mortuary, $13.58; expense, $59.50	73 08
Net amount received from members	$212,424 23
Interest on mortgage loans—reserve	1,542 00
Gross rents from association's property—reserve	100 00
Sale of lodge supplies—expense	1,033 27
Certificate fees—expense	518 55
Refund on death claims—mortuary	87 70

DISBURSEMENTS.

Death claims—mortuary	$121,103 69
Permanent disability claims—mortuary	2,800 14
Sick and accident claims—mortuary	4,558 68
Old age benefits—mortuary	135 66
Total benefits paid	$128,598 17
Commissions and fees paid to deputies and organizers—expense	7,948 29
Salaries of deputies and organizers—expense	19,620 37
Salaries of officers and trustees (9)—expense	6,795 00
Salaries and other compensation of committees—expense	129 00
Salaries of office employees (14)—expense	9,932 63
Salaries and fees paid to supreme medical examiners—expense	175 75
Salaries and fees paid to subordinate medical examiners—expense	79 00
Traveling and other expenses of officers, trustees and committees—expense	1,957 85
Insurance Department fees—expense	304 35
Rent—expense	2,034 10
Advertising, printing and stationery—expense	4,495 46
Postage, express, telegraph and telephone—expense	2,914 80
Lodge supplies—expense	1,402 79
Official publication—expense	3,336 62
Expense of supreme lodge meeting—expense	2,764 80
Legal expense in litigating claims—mortuary	93 10
Other legal expenses—expense	1,062 60
Furniture and fixtures—expense	1,740 56
Taxes, repairs and other expenses on real estate—reserve	14 38
All other disbursements—mortuary, $80.00; expense, $13,185.87	13,265 87
Total disbursements	$208,665 49
Balance	$44,367 47

LEDGER ASSETS.

Mortgage loans on real estate	$31,700 00
Deposited in banks (not on interest)	12,667 47
Total ledger assets	$44,367 47

Non-Ledger Assets.

Interest and rents due and accrued		682 43
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge, estimated		17,774 30
Dues from subordinate council (supply account)	$540 37	
Furniture and fixtures	4,510 00	
Office supplies	2,000 00	
Council supplies	2,618 20	
Total		9,668 57
Gross assets		$72,492 77

Deduct Assets Not Admitted.

Furniture and fixtures	$4,510 00	
Office supplies	2,000 00	
Council supplies	2,618 20	
Total		9,128 20
Total admitted assets		$63,364 57

LIABILITIES.

Death claims resisted (1)	$95 50	
Death claims reported but not yet adjusted (3)	1,531 45	
Total death claims		$1,626 95
Sick and accident claims reported but not yet adjusted (3)		502 98
Total unpaid claims		$2,129 93

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	16,441	$20,054,231 00
Benefit certificates written during the year	2,777	3,074,000 00
Benefit certificates increased during the year	-----	29,750 00
Totals	19,218	$23,157,981 00
Deduct terminated or decreased during the year	3,206	3,508,581 00
Total benefit certificates in force December 31, 1911	16,012	$19,649,400 00

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	501	$667,175 00
Benefit certificates written during the year	65	80,000 00
Benefit certificates increased during the year	-----	700 00
Totals	566	$747,875 00
Deduct terminated or decreased during the year	69	94,075 00
Total benefit certificates in force December 31, 1911	497	$653,800 00

Received during the year from members in California: Mortuary, $4,690.45; expense, $2,884.62; Total, $7,575.07.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	24	$19,438 85
Claims (face value) incurred during the year	144	109,827 14
Totals	168	$129,265 99
Claims paid during the year	164	121,103 69
Balance	4	8,162 30
Saved by compromising or scaling down claims during the year	-----	6,535 35
Claims unpaid December 31, 1911	4	$1,626 95

California claims.	Number.	Amount.
Claims incurred during the year	9	$6,798 30
Claims paid during the year	8	6,369 38
Claims unpaid December 31, 1911	1	$428 92

EXHIBIT OF PERMANENT DISABILITY CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement (one claim increased)	2	$945 00
Claims incurred during the year	20	1,906 77
Totals	22	$2,851 77
Claims paid during the year	21	2,800 14
Claims rejected during the year	1	$51 63

California claims.	Number.	Amount.
Claims incurred during the year	1	$80 65
Claims paid during the year	1	80 65

EXHIBIT OF SICK AND ACCIDENT CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	4	$701 44
Claims incurred during the year	55	4,844 72
Totals	59	$5,546 16
Claims paid during the year	52	4,558 68
Claims rejected during the year	4	$484 50

EXHIBIT OF OLD AGE AND OTHER CLAIMS.

Total claims.	Number.	Amount.
Claims incurred during the year	2	$135 66
Claims paid during the year	2	135 66

SUPREME TRIBE OF BEN HUR.

R. H. GERARD, President. JOHN C. SNYDER, Secretary.

(Incorporated January 8, 1894. Commenced business March, 1894. Reincorporated February 20, 1900.)

Home Office: Crawfordsville, Indiana.

Balance from previous year: Mortuary, $290,951.39; reserve, $1,202,001.05; expense, $95,730.38	$1,588,682 82

INCOME.

Membership fees actually received—expense	$1,668 50
Assessments or premiums during first twelve months of membership of which all or an extra percentage is used for expenses—mortuary, $100,504.09; expense, $93,524.73	194,028 82
All other assessments or premiums—mortuary, $999,460.00; reserve, $99,522.70; expense, $66,768.80	1,165,751 50
Dues and per capita tax—expense	126,351 34
Medical examiners' fees actually received—expense	115 26
Total received from members	$1,487,915 42
Deduct payments returned to applicants and members—mortuary, $282.27; expense, $250.22	532 49
Net amount received from members	$1,487,382 93
Interest on mortgage loans—mortuary, $1,671.66; reserve, $15,515.70	17,187 36
Interest on bonds and dividends on stocks—mortuary, $6,558.12; reserve, $42,368.95; expense, $990.00	49,917 07
Interest from all other sources: Deposits—mortuary, $1,535.80; reserve, $1,004.49; expense, $298.55	2,838 84
Gross rents from association's property, including $800.00 for association's occupancy of its own buildings—reserve, $835.50; expense, $1,309.00	2,144 50
Sale of lodge supplies—expense	5,478 32
Advertising—expense	454 11
Tender of assessments refused—mortuary, $66.67; expense, $184.53	251 20
Total income	$1,565,654 33

DISBURSEMENTS.

Death claims—mortuary	$1,146,124 09
Permanent disability claims—mortuary	8,200 00
Total benefits paid	$1,154,324 09
Commissions and fees paid to deputies and organizers—expense	143,334 32
Salaries of deputies and organizers—expense	26,314 81
Salaries of officers and trustees (3)—expense	19,000 00
Salaries and other compensation of committees—expense	4,651 98
Salaries of office employees (26)—expense	28,868 00
Salaries and fees paid to supreme medical examiners—expense	8,800 00
Traveling and other expenses of officers, trustees and committees—expense	26,729 96
Insurance Department fees—expense	800 00
Rent—expense	800 00

Advertising, printing and stationery—expense	$15,093 08
Postage, express, telegraph and telephone—expense	6,273 87
Lodge supplies—expense	11,321 93
Official publication—expense	26,164 31
Legal expense in litigating claims—expense	6,626 35
Furniture and fixtures—expense	1,630 92
Taxes, repairs and other expenses on real estate—expense	515 76
All other disbursements—mortuary, $135.22; reserve, $7,215.75; expense, $14,325.27	21,676 24
Total disbursements	$1,502,926 44
Balance	$1,651,410 71

LEDGER ASSETS.

Book value of real estate	$138,196 21
Mortgage loans on real estate	323,125 00
Book value of bonds and stocks	1,025,556 48
Deposited in trust companies and banks on interest	20,000 00
Cash in association's office, $50.00; deposited in banks, interest on daily balances, $144,483.02	144,533 02
Total ledger assets	$1,651,410 71

Non-Ledger Assets.

Interest and rents due and accrued	12,819 39
Market value of real estate over book value	4,028 85
Market value of bonds and stocks over book value	7,657 33
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge	14,005 85
Gross assets	$1,689,922 13

LIABILITIES.

Death claims resisted (2)	$2,100 00	
Death claims reported but not yet adjusted (129)	148,875 00	
Total unpaid claims		$150,975 00
Salaries, rents, expenses, commissions, etc., due or accrued		18,512 33
Taxes due or accrued		670 24
Advance assessments		1,546 54
Total liabilities		$171,704 11

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	113,328	$134,469,250 00
Benefit certificates written during the year	21,842	20,470,750 00
Totals	135,170	$154,940,000 00
Deduct term'nated or deceased during the year	15,217	15,114,100 00
Total benefit certificates in force December 31, 1911	119,953	$139,825,900 00

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	965	$1,187,200 00
Benefit certificates written during the year	121	107,500 00
Totals	1,086	$1,294,700 00
Deduct terminated or decreased during the year	147	158,400 00
Total benefit certificates in force December 31, 1911	939	$1,136,300 00

Received during the year from members in California: Mortuary, $11,980.38;

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	142	$169,505 00
Claims (face value) incurred during the year	1,013	1,160,100 00
Totals	1,155	$1,329,150 00
Claims paid during the year	1,022	1,146,124 09
Balance	133	$183,025 91
Saved by compromising or scaling down claims during the year	-----	29,950 91
Claims rejected during the year	2	2,100 00
Claims unpaid December 31, 1911	131	$150,975 00

California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	1	$2,000 00
Claims (face value) incurred during the year	16	19,800 00
Totals	17	$21,800 00
Claims paid during the year	16	21,000 00
Claims unpaid December 31, 1911	1	$800 00

BROTHERHOOD OF AMERICAN YEOMEN.

WILLIAM KOCH, President. WILLIAM E. DAVY, Secretary.

(Incorporated December 27, 1897. Commenced business February 25, 1897.)

Home Office: Des Moines, Iowa.

Balance from previous year: Mortuary, $83,290.68; reserve, $1,360,614.26; expense, $134,923.27	$1,578,828 21

INCOME.

Membership fees actually received—expense	$46,150 25
Assessments or premiums during first twelve months of membership of which all or an extra percentage is used for expense—mortuary, $65,822.18; expense, $197,466.52	263,288 70
All other assessments or premiums	1,145,992 18
Dues and per capita tax	269,361 65
Medical examiners' fees actually received	5,149 00
Total received from members	$1,729,941 78
Deduct payments returned to applicants and members—expense	1,115 38
Net amount received from members	$1,728,826 40
Interest on mortgage loans, $21,245.59, less accrued interest and refunds of $1,726.88 on loans purchased—reserve	69,518 71
Interest on bonds and dividends on stocks—reserve	7,008 93
Interest from all other sources—expense	7,480 95
Gross rents from association's property, including $6,000 for association's occupancy of its own buildings—expense	6,862 50
Sale of lodge supplies—expense	16,339 86
Expectancy reserve fund—reserve	248,586 69
Surety bond fund—expense	3,840 00
Deputy bond fund—expense	757 27
Total income	$2,089,241 22

DISBURSEMENTS.

Death claims—mortuary	$1,123,879 08
Permanent disability claims—mortuary	88,184 23
Sick and accident claims—mortuary	38,375 00
Old age benefits—mortuary	3,250 00
Total benefits paid—mortuary	$1,253,688 31

Commissions and fees paid to deputies and organizers—expense	$253,729 97
Salaries of officers and trustees (12)—expense	28,700 00
Salaries and other compensation of committees—expense	1,840 00
Salaries of office employees (52)—expense	45,638 98
Expense medical department—expense	1,328 11
Salaries and fees paid to subordinate medical examiners—expense	278 50
Traveling and other expenses of officers, trustees and committees—expense	6,747 21
Insurance department fees—expense	964 32
Rent—expense	6,000 00
Advertising, printing and stationery—expense	28,833 27
Postage, express, telegraph and telephone—expense	19,164 01
Lodge supplies—expense	18,850 45
Official publication—expense	17,291 21
Legal expense in litigating claims—expense	5,846 96
Other legal expenses—expense	2,150 72
Furniture and fixtures—expense	2,977 88
Taxes, repairs and other expenses on real estate—expense	5,473 25
All other disbursements—expense	44,117 48
Total disbursements	$1,743,620 63
Balance	$1,924,448 80

LEDGER ASSETS.

Book value of real estate	$77,692 37
Mortgage loans on real estate	1,578,330 00
Book value of bonds and stocks	108,622 92
Deposited in trust companies and banks on interest	159,236 14
Organizers' balances	567 37
Total ledger assets	$1,924,448 80

Non-Ledger Assets.

Interest and rents due and accrued		32,305 44
Market value of bonds and stocks over book value		3,043 27
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge		145,000 00
Office furniture and fixtures	$23,402 88	
Lodge supplies (inventory)	4,598 50	
Total		$28,001 38
Gross assets		$2,132,798 89

Deduct Assets Not Admitted.

Balance due from organizers not secured by bonds	$567 37	
Office furniture and fixtures	23,402 88	
Lodge supplies (inventory)	4,598 50	
		28,568 75
Total admitted assets		$2,104,230 14

LIABILITIES.

Death claims due and unpaid (15)	$21,250 00	
Death claims resisted (11)	18,000 00	
Death claims reported but not yet adjusted (102)	130,500 00	
Present value of deferred old age and disability claims payable in installments	19,751 96	
Total death claims		$189,501 96
Permanent disability claims reported but not yet adjusted (82)		56,215 15
Sick and accident claims reported but not yet adjusted (21)		2,200 00

Amount brought forward		$247,917 11
Sick and accident claims reported but not yet adjusted (21)	$2,200 00	
Total sick and accident claims		$2,200 00
Total unpaid claims		$247,917 11
Salaries, rents, expenses, commissions, etc., due or accrued		2,288 73
Advance assessments		4,784 85
Total liabilities		$254,990 69

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	133,984	$187,372,000 00
Benefit certificates written during the year	40,284	48,700,000 00
Benefit certificates increased during the year		446,000 00
Totals	174,268	$236,518,000 00
Deduct terminated or decreased during the year	23,173	28,596,500 00
Total benefit certificates in force December 31, 1911	151,095	$207,921,500 00

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	3,249	$4,876,000 00
Benefit certificates written during the year	715	889,500 00
Benefit certificates increased during the year	-----	13,000 00
Totals	3,964	$5,778,500 00
Deduct terminated or decreased during the year	443	548,000 00
Total benefit certificates in force December 31, 1911	3,521	$5,230,500 00

Received during the year from members in California: Mortuary, $31,069.33; expense, $10,302.11; total, $41,371.44.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	94	$132,750 00
Claims (face value) incurred during the year	872	1,192,494 65
Totals	966	$1,325,244 65
Claims paid during the year	835	1,123,879 08
Balance	131	$201,365 57
Saved by compromising or scaling down claims during the year	-----	27,615 57
Claims rejected during the year	3	4,000 00
Claims unpaid December 31, 1911	128	$169,750 00

California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	4	$3,000 00
Claims (face value) incurred during the year	26	34,500 00
Totals	30	$37,500 00
Claims paid during the year	27	31,351 97
Balance	3	$6,148 03
Saved by compromising or scaling down claims during the year	-----	1,148 03
Claims unpaid December 31, 1911	3	$5,000 00

EXHIBIT OF PERMANENT DISABILITY CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	46	$31,125 00
Claims incurred during the year	191	118,952 24
Totals	237	$150,077 24
Claims paid during the year	150	88,184 23
Balance	87	$61,893 01

Saved by compromising or scaling down claims during the year		2,177 86
Claims rejected during the year	5	3,500 00
Claims unpaid December 31, 1911	82	$56,215 15

California claims	Number.	Amount.
Claims incurred during the year	5	$2,500 00
Claims paid during the year	4	1,766 93
Balance	1	$733 07
Saved by compromising or scaling down claims during the year		233 07
Claims unpaid December 31, 1911	1	$500 00

EXHIBIT OF SICK AND ACCIDENT CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	9	$925 00
Claims incurred during the year	398	39,850 00
Totals	407	$40,775 00
Claims paid during the year	385	38,375 00
Claims rejected during the year	1	200 00
Claims unpaid December 31, 1911	21	$2,200 00

California claims.	Number.	Amount.
Claims incurred during the year	10	$800 00
Claims paid during the year	10	800 00

EXHIBIT OF OLD AGE AND OTHER CLAIMS.

Total claims.	Number.	Amount.
Claims incurred during the year	30	$3,250 00
Claims paid during the year	30	3,250 00

SUPREME COUNCIL
CATHOLIC KNIGHTS OF AMERICA.

St. Louis, Mo.

DR. F. GANDIN, President. ANTHONY MATRE, Secretary.

(Incorporated 1880. Commenced business, 1877.)

Home Office: 606 Mercantile National Bank Building, St. Louis, Missouri.

Balance from previous year: Mortuary, $1,036,698.86; organization, $1,921.35; expense, $6,054.97	$1,044,675 28

INCOME.

Assessments or premiums—mortuary	$583,182 73
Dues and per capita tax—expense	33,269 59
Medical examiners' fees actually received—expense	306 00
Total received from members	$616,758 32
Interest on mortgage loans—mortuary	212 50
Interest on bonds and dividends on stocks—mortuary	45,510 84
Interest from all other sources—mortuary	1,808 68
Sale of lodge supplies—expense	645 72
Canceled warrants, $2,324.08; organization, $14.50	2,338 58
Fines—expense	32 00
Benefit certificates—expense	286 50
Charter fees—expense	20 00

DISBURSEMENTS.

Death claims—mortuary	$569,100 69
Salary of chief organizer—organization	1,200 00
Salaries of officers and trustees (7)—expense	8,799 92
Other compensation of officers and trustees—expense	653 55
Salaries and fees paid to supreme medical examiners—expense	691 00
Salaries and fees paid to subordinate medical examiners—organization, $32.00; expense, $12.00	44 00
Traveling and other expenses of officers, trustees and committees—expense	399 30
Insurance department fees—expense	396 57
Rent, including buildings—expense	1,364 20
Advertising, printing and stationery—organization, $475.05; expense, $1,362.89	1,819 94
Postage, express, telegraph and telephone—organization, $416.70; expense, $618.23	1,034 93
Lodge supplies—organization, $514.10; expense, $274.87	788 97
Official publication—expense	2,940 00
Legal expense in litigating claims—expense	740 05
Other legal expenses—expense	294 46
All other disbursements—mortuary, $52.62; organization, $2,533.32; expense, $810.00	3,343 32
Total disbursements	$594,073 51
Balance	$1,114,214 91

LEDGER ASSETS.

Mortgage loans on real estate	$12,500 00
Book value of bonds	1,065,044 05
Deposited in trust companies and banks on interest	36,670 86
Total ledger assets	$1,114,214 91

Non-Ledger Assets.

Interest and rents due and accrued	14,460 82
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge	32,601 90
Gross assets	$1,161,277 63

Deduct Assets Not Admitted.

Book value of bonds and stocks over market value	55,634 71
Total admitted assets	$1,105,642 92

LIABILITIES.

Death claims due and unpaid (23)	$16,922 76	
Death claims reported but not yet adjusted (3)	5,000 00	
Total death claims		$21,922 76

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	18,537	$22,117,615 47
Benefit certificates written during the year	1,036	795,750 00
Benefit certificates increased during the year	-----	8,750 00
Totals	19,573	$22,922,115 47
Deduct terminated or decreased during the year	944	1,410,312 20
Total benefit certificates in force December 31, 1911	18,629	$21,511,803 27

Business in California during year.	Number.	Amount.
Benefit certificates written during the year	5	$6,000 00
Deduct terminated or decreased during the year	21	40,500 69

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	37	$45,416 50
Claims (face value) incurred during the year	399	545,606 95
Totals	436	$591,023 45
Claims paid during the year	410	569,100 69
Claims unpaid December 31, 1911	26	$21,922 76

California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	2	$4,000 00
Claims (face value) incurred during the year	13	17,016 67
Totals	15	$21,016 67
Claims paid during the year	14	20,016 67
Claims unpaid December 31, 1911	1	$1,000 00

CATHOLIC ORDER OF FORESTERS.

THOMAS H. CANNON, High Chief Ranger. THOMAS F. MCDONALD, High Secretary.

(Incorporated May 24, 1883. Commenced business May 24, 1883.)

Home Office: 30 North Lasalle street, Chicago, Illinois.

Balance from previous year: Mortuary, $2,468,336.82; expense, $44,095.15	$2,512,431 97

INCOME.

Membership fees actually received—expense	$950 00
All other assessments or premiums—mortuary, $1,531,449.24; expense, $109,734.62	1,628,783 86
Other payments by members: Certificate fees—expense	8,561 00
Total received from members	$1,650,694 86
Deduct payments returned to applicants and members	40 34
Net amount received from members	$1,650,654 52
Interest on bonds and dividends on stocks—mortuary	103,192 22
Interest from all other sources—mortuary, $2,179.27; expense, $1,017.76	3,197 03
Sale of lodge supplies—expense	4,734 07
Advertisement, official journal—expense	200 00
Relief fund—expense	18 00
Sale waste paper—expense	2 00
Subordinate court officers' bond—expense	4,360 12
Conscience fund—mortuary	15 00
Total income	$1,766,373 29

DISBURSEMENTS.

Death claims—mortuary	$1,366,886 48
Commissions and fees paid to organizers—expense	9,210 94
Salaries of deputies and organizers—expense	27,425 00
Salaries of officers and trustees (13)—expense	13,679 18
Salaries of office employees (22)—expense	21,220 00
Other compensation of office employees: Valuation of certificates—expense	571 35
Traveling and other expenses of officers, trustees and committees—expense	4,099 80
Insurance Department fees—expense	1,079 75

Amount brought forward	$1,454,152 50
Rent—expense	4,216 40
Advertising, printing and stationery	3,241 35
Postage, express, telegraph and telephone	4,931 57
Lodge supplies, including premium subordinate court bonds—expense	8,788 69
Official publication—expense	19,234 33
International court—expense	19,608 43
Legal expense in litigating claims—expense	2,700 79
Other legal expenses: Investigations—expense	449 45
Furniture and fixtures—expense	40 00
Fire insurance—expense	23 40
Bond premium charged off—mortuary	125 00
All other disbursements—mortuary, $2,889.64; expense, 2,769 21	5,658 85
Total disbursements	$1,513,190 76
Balance	$2,765,614 50

LEDGER ASSETS.

Book value of bonds and stocks	$2,653,652 22
Deposited in trust companies and banks on interest	96,962 28
Cash deposit, Provincial Treasurer	5,000 00
Bond deposit, Manitoba	10,000 00
Total ledger assets	$2,765,614 50

Non-Ledger Assets.

Interest and rents due and accrued		40,885 51
Subordinate court balances	$21,462 56	
Supplies, furniture and fixtures	8,504 74	
Advertising account	100 00	
		30,067 30
Gross assets		$2,836,567 31

Deduct Assets Not Admitted.

Book value of bonds and stocks over market value	$43,805 72	
Supplies, furniture and fixtures	8,504 74	
Advertising account	100 00	
		52,410 46
Total admitted assets		$2,784,156 85

LIABILITIES.

Death claims due and unpaid, part payments	$6,658 57	
Death claims resisted (11)	10,500 00	
Death claims reported but not yet adjusted (142)	153,500 00	
Total death claims		$170,658 57
Due relief fund		585 46
Total liabilities		$171,244 03

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	144,644	$148,197,000 00
Benefit certificates written during the year	11,632	11,083,500 00
Benefit certificates increased during the year	-----	107,000 00
Totals	156,276	$159,387,500 00
Deduct terminated or decreased during the year	6,981	5,796,250 00
Total benefit certificates in force December 31, 1911	149,295	$153,591,250 00

Business in California during the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	200	$235,500 00
Benefit certificates written during the year	112	106,750 00
Totals	312	$342,250 00
Deduct terminated or decreased during the year	14	14,000 00
Total benefit certificates in force December 31, 1911	298	$328,250 00

Received during the year from members in California: Mortuary, $2,939.65; expense, $166.75; total, $3,106.40.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	130	$141,923 32
Claims (face value) incurred during the year	1,325	1,408,000 00
Totals	1,455	$1,549,923 32
Claims paid during the year	1,295	1,366,886 48
Balance	160	$183,036 84
Saved by compromising or scaling down claims during the year	-----	4,378 27
Claims rejected during the year	7	8,000 00
Claims unpaid December 31, 1911	153	$170,658 57

CHURCH FRATERNAL.

Russell Graham, President. Hugh R. Moffet, Secretary.

Commenced business May 19, 1897.

Home Office: Warren County Library Building, Monmouth, Illinois.

Balance from previous year: Mortuary, $2,281.15; reserve, $77,529.62; expense, $2,100.44	$81,911 21

INCOME.

Assessments or premiums—mortuary, $36,007.52; reserve, $4,499.74; expense, $4,499.74	$45,007 00
Dues and per capita tax—expense	11,347 25
Net amount received from members	$56,354 25
Interest on mortgage loans—reserve	4,045 91
Charge of certificates—expense	26 50
Total income	$60,426 66

DISBURSEMENTS.

Death claims—mortuary	$46,000 00
Old age benefits—mortuary	300 00
Total benefits paid	$46,300 00
Commissions and fees paid to deputies and organizers—expense	3,347 42
Salaries of deputies and organizers—expense	1,030 24
Salaries of officers and trustees (9)—expense	1,862 00
Salaries of office employees (2)—expense	1,800 00
Other compensation of office employees—expense	63 25
Salaries and fees paid to supreme medical examiners—expense	139 50
Traveling and other expenses of officers, trustees and committees—	

Amount brought forward	$54,729 36
For collection and remittance of assessments and dues—expense	417 65
Insurance Department fees—expense	111 50
Rent—expense	300 00
Advertising, printing and stationery—expense	385 65
Postage, express, telegraph and telephone—expense	484 71
Official publication—expense	322 79
Other legal expenses—expense	15 00
Taxes, repairs and other expenses on real estate—expense	313 74
All other disbursements—reserve, $100.24; expense, $215.51	315 51
Total disbursements	$57,396 15
Balance after transfers	$84,941 72

LEDGER ASSETS.

Mortgage loans on real estate	$81,566 46
Cash in association's office, $10.40; deposited in banks (not on interest), $3,364.86	3,375 26
Total ledger assets	$84,941 72
Cash in bank: Advance payments fund shown in 422 liabilities	1,952 44
Total	$86,894 16

Non-Ledger Assets.

Interest accrued	2,958 58
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge	220 22
Due from organizers	235 80
Gross assets	$90,308 76

Deduct Assets Not Admitted.

Balance due from organizers not secured by bonds	235 80
Total admitted assets	$90,072 96

LIABILITIES.

Death claims due and unpaid (1)	$2,000 00	
Death claims reported but not yet adjusted (4)	6,000 00	
Total death claims		$8,000 00
Advance assessments		1,952 44
Total liabilities		$9,952 44

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	3,816	$5,259,500 00
Benefit certificates written during the year	273	266,000 00
Benefit certificates increased during the year	-----	3,000 00
Totals	4,089	$5,528,500 00
Deduct terminated or decreased during the year	256	297,000 00
Total benefit certificates in force December 31, 1911	3,833	$5,231,500 00

Business in California during year.	Number.	Amount.
Benefit certificates written during the year	98	$94,500 00
Deduct terminated or decreased during the year	112	120,500 00
Total benefit certificates in force December 31, 1911	368	$430,500 00

Received during the year from members in California: Mortuary, $4,143.96; reserve, $460.43; expense, $683.25; Total, $5,287.64.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	3	$4,000 00
Claims (face value) incurred during the year	34	52,000 00
Totals	37	$56,000 00
Claims paid during the year	30	46,000 00
Balance	7	$10,000 00
Claims rejected during the year 1910 and now dropped from court	1	1,000 00
Claims unpaid December 31, 1911	6	$9,000 00

EXHIBIT OF OLD AGE AND OTHER CLAIMS.

Claims incurred during the year	3	$3,000 00
Claims paid during the year	3	3,000 00

COURT OF HONOR.

A. L. HEREFORD, President. W. E. ROBINSON, Secretary.

(Incorporated July 16, 1895. Commenced business July 23, 1895.)

Home Office: Second and Adams streets, Springfield, Illinois.

Balance from previous year: Mortuary, $70,959.00; reserve, $1,630,446.94; relief, $82.46; expense, $5,720.96	$1,707,209 36

INCOME.

Assessments or premiums during first twelve months of membership of which all or an extra percentage is used for expenses—mortuary	$64,604 23
All other assessments or premiums—mortuary, $904,955.28; relief, $12,398.25	917,353 53
Dues and per capita tax—expense	118,797 71
Total received from members	$1,100,755 47
Deduct payments returned to applicants and members—mortuary $1,056.86; relief, $3.50; expense, $42.28	1,102 64
Net amount received from members—mortuary, $968,502.65; relief, $12,394.75; expense, $118,755.43	1,099,652 83
Interest on mortgage loans—reserve	23,706 34
Interest on bonds and dividends on stocks—reserve	52,015 75
Interest from all other sources—mortuary, $2,938.07; reserve, $617.98; relief, $11.22; expense, $27.44	3,594 71
Gross rents from association's property—reserve	1,590 76
Sale of lodge supplies	622 97
Benefit certificate fees—expense	870 30
Social certificate fees—expense	432 50
Transfer cards—expense	53 00
Regalia—expense	75 91
Advertising official publication—expense	21 28
Bills payable—expense	7,500 00
Total income	$1,190,136 35

DISBURSEMENTS.

Death claims—mortuary	$742,274 57
Permanent disability claims—mortuary	1,000 00
Sick and accident claims—relief	6,292 25

Amount brought forward	$749,566 82
Commissions and fees paid to deputies and organizers—expense	87,233 57
Salaries of officers and trustees (3)—expense	15,300 00
Other compensation of officers and trustees: Expense and per diem, seven supreme directors—expense	13,366 00
Salaries and other compensation of committees—expense	1,468 51
Salaries of office employees (22)—expense	18,338 30
Salaries and fees paid to supreme medical examiners—expense	3,600 00
Salaries and fees paid to subordinate medical examiners—expense	10 00
Traveling and other expenses of officers, trustees and committees—expense	1,089 32
For collection and remittance of assessments and dues—expense	39,897 40
Insurance department fees—expense	1,039 92
Rent—expense	1,590 76
Advertising, printing and stationery—expense	5,983 82
Postage, express, telegraph and telephone—expense	4,042 18
Official publication—expense	13,274 96
Legal expense in litigating claims—expense	3,558 47
Other legal expenses: General attorney's salary—expense	5,000 00
Furniture and fixtures—expense	947 58
Taxes, repairs and other expenses on real estate—expense	729 64
All other disbursements: Bills payable, $7,500.00; office supplies, $940.30; prizes, $447.87; insurance premium bonds, $330.44; fraternal congress, $658.67; heat, light, janitor, $1,340.72; interest on borrowed money, $166.66; interest on judgment, $12.00; miscellaneous, $904.70; improvements, home office, $825.80	13,127 17
Total disbursements	$979,164 42
Balance	$1,918,181 29

LEDGER ASSETS.

Book value of real estate	$39,769 69
Mortgage loans on real estate	590,400 00
Book value of bonds and stocks	1,141,192 70
Deposited in trust companies and banks on interest	145,085 15
Cash in association's office	1,733 75
Total ledger assets	$1,918,181 29

Non-Ledger Assets.

Interest and rents due and accrued	$31,011 40
Market value of real estate over book value	10,230 31
Market value of bonds and stocks over book value	23,876 69
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge	92,735 95
Total admitted assets	$2,076,035 64

LIABILITIES.

Death claims resisted (22)	$27,500 00	
Death claims reported but not yet adjusted (39)	42,500 00	
Total death claims		$70,000 00
Permanent disability claims resisted (1)		250 00
Sick and accident claims resisted (4)	$99 83	
Sick and accident claims reported but not yet adjusted (5)	303 93	
Total sick and accident claims		403 76
Total unpaid claims		$70,653 76
Recorder's compensation, December, 1911		3,565 05
Total liabilities		$74,218 81

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	64,843	$79,732,375 00
Benefit certificates written during the year	11,212	10,679,500 00
Benefit certificates increased during the year	-----	54,500 00
Totals	76,055	$90,466,375 00
Deduct terminated or decreased during the year	8,810	8,578,750 00
Total benefit certificates in force December 31, 1911	67,245	$81,887,625 00

Business in California during year.	Number.	Amount
Benefit certificates in force December 31, 1910, as per last statement	427	$531,500 00
Benefit certificates written during the year	337	350,000 00
Benefit certificates received by transfer during the year	53	68,500 00
Benefit certificates increased during the year	-----	2,000 00
Totals	817	$952,000 00
Deduct terminated or decreased during the year	149	145,500 00
Total benefit certificates in force December 31, 1911	668	$806,500 00

Supplementary Exhibit of Certificates.

Total business of the year.	Number.	Amount.
Relief certificates in force December 31, 1910	1,107	$37 00
Relief certificates written during the year	2,219	193 00
Totals	3,326	$230 00
Deduct terminated during the year	1,600	85 00
Total relief certificates in force December 31, 1911	1,726	$145 00
Social certificates in force December 31, 1910	450	$6 00
Social certificates written during the year	436	26 00
Totals	886	$32 00
Deduct terminated during the year	314	17 00
Total social certificates in force December 31, 1911	572	$15 00

Received during the year from members in California: Actuary, $7,713.35; sick and accident, $993.00; expense, $946.20; Total, $9,652.55.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	72	$79,850 00
Claims (face value) incurred during the year	590	768,900 00
Totals	662	$848,750 00
Claims paid during the year	601	742,674 57
Balance	61	$106,075 43
Saved by compromising or scaling down claims during the year	-----	36,075 43
Claims rejected during the year	10	13,500 00
Claims unpaid December 31, 1911	61	$70,000 00

California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	1	$2,000 00
Claims (face value) incurred during the year	2	3,000 00
Totals	3	$5,000 00
Claims paid during the year	3	3,700 00
Saved by compromising or scaling down claims during the year	-----	1,300 00

EXHIBIT OF PERMANENT DISABILITY CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	2	$750 00
Claims incurred during the year	3	1,000 00
Totals	5	$1,750 00
Claims paid during the year	3	1,000 00
Balance	2	$750 00
Saved by compromising or scaling down claims during the year	1	500 00
Claims unpaid December 31, 1911	1	$250 00

EXHIBIT OF SICK AND ACCIDENT CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	5	$434 11
Claims incurred during the year	251	6,519 40
Totals	256	$6,953 51
Claims paid during the year	246	6,292 25
Claims rejected during the year	1	257 50
Claims unpaid December 31, 1911	9	$403 76
California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	1	$300 00
Claims incurred during the year	9	252 02
Totals	10	$552 02
Claims paid during the year	10	302 02
Claims rejected during the year		250 00

SUPERIOR LODGE DEGREE OF HONOR.

FRANCES BUELL OLSON, President. ELIZABET E. ALHBURN, Secretary.

(Incorporated August 14, 1907. Commenced business June 12, 1896.)

Home Office: Sioux Falls, South Dakota. Business office: Sioux City, Iowa.

Balance from previous year: Mortuary, $8,150.82; reserve, $73,509.38; Upchurch, $195.26; Penn relief, $1.80; expense, $157.03	$82,014 29

INCOME.

Assessments or premiums—mortuary	$47,690 82
Dues and per capita tax—expense	13,229 71
Other payments by members: Certificate fees—expense	77 00
Total amount received from members	$60,997 53
Interest on bonds and dividends on stocks—reserve	4,232 78
Interest from all other sources: On delivery balances—expense	260 16
Sale of lodge supplies—expense	3,460 94
Exchange to apply on checks—expense	6 80
Total income	$68,958 21

DISBURSEMENTS.

Death claims—mortuary	$30,000 00
Commissions and fees paid to deputies and organizers—expense	322 10
Salaries of deputies and organizers—expense	3,313 06
Salaries of officers and trustees (3)—expense	2,325 00
Salaries and other compensation of committees—expense	339 74
Salaries of office employees—expense	1,770 00
Traveling and other expenses of officers, trustees and committees—expense	342 58
Insurance Department fees—expense	278 50
Rent—expense	300 00

Advertising, printing and stationery—expense	$455 00
Postage, express, telegraph and telephone—expense	742 11
Lodge supplies—expense	3,545 60
Official publication—expense	2,145 88
Other legal expenses—expense	115 00
Furniture and fixtures—expense	2 50
Decrease by adjustment of bonds—reserve	1,240 50
All other disbursements—expense	1,166 09
Total disbursements	$48,406 66
Balance	$102,565 84

LEDGER ASSETS.

Book value of bonds and stocks	$98,591 75
Deposited in trust companies and banks on interest	3,974 09
Total ledger assets	$102,565 84

Non-Ledger Assets.

Interest accrued		1,415 84
Assessments actually collected by subordinate lodges not yet turned over to superior lodge		4,259 32
Due from subordinate lodges for supplies	$409 89	
Inventory of supplies for resale	2,463 83	
Furniture and fixtures in superior recorder's office	1,714 36	
House and lot held in trust for Upchurch children	1,200 00	
		5,788 08
Gross assets		$114,029 08

Deduct Assets Not Admitted.

Book value of bonds and stocks over market value	$1,411 75	
Due from subordinate lodges for supplies	409 89	
Inventory of supplies for resale	2,463 83	
Furniture and fixtures in superior recorder's office	1,714 36	
		5,999 83
Total admitted assets		$108,029 25

LIABILITIES.

Death claims reported but not yet adjusted (4)		$3,500 00
Salaries, rents, expenses, commissions, etc., due or accrued		2,177 35
Upchurch fund	$195 26	
House and lot held in trust for Upchurch children	1,200 00	
Advanced per capita from grand lodges	2,250 00	
		3,645 26
Total liabilities		$9,322 61

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	4,444	$3,826,000 00
Benefit certificates written during the year	820	659,750 00
Totals	5,264	$4,485,750 00
Deduct terminated or decreased during the year	720	579,750 00
Total benefit certificates in force December 31, 1911	4,544	$3,906,000 00

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	460	$424,500 00
Benefit certificates written during the year	16	14,500 00
Totals	476	$439,000 00
Deduct terminated or decreased during the year	34	32,500 00

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	1	$1,000 00
Claims (face value) incurred during the year	42	33,500 00
Totals	43	$34,500 00
Claims paid during the year	38	30,000 00
Balance	5	$4,500 00
California claims.	**Number.**	**Amount.**
Claims (face value) incurred during the year	7	$6,500 00
Claims paid during the year	6	5,500 00
Claims unpaid December 31, 1911	1	$1,000 00

EQUITABLE FRATERNAL UNION.

E. A. Williams, President. Merritt L. Campbell, Secretary.

(Incorporated August, 1897. Commenced business August, 1897.)

Home Office: South Commercial street, Neenah, Wisconsin.

Balance from previous year: Mortuary, $24,850.15; reserve, $1,163,656.55; expense, $52,939.12	$1,241,445 82

INCOME.

Assessments or premiums—mortuary, $331,097.09; expense, $70,455.17	$401,552 26
Dues and per capita tax—expense	28,084 01
Other payments by members: Fines and fees—expense	192 30
Total received from members	$429,828 57
Deduct payments returned to applicants and members—mortuary, $267.12; expense, $36.88	304 00
Net amount received from members	$429,524 57
Interest on mortgage loans—reserve	21,108 96
Interest on bonds—reserve	39,085 96
Interest from all other sources—expense	876 57
Gross rents from association's property	1,280 50
Sale of lodge supplies	1,243 53
Bonds local officers	707 60
Sales society emblems	232 61
Local assembly licenses	8 00
Advertising Friend and Guide	84 84
Total income	$494,153 14

DISBURSEMENTS.

Death claims—mortuary	$157,088 97
Commissions and fees paid to deputies and organizers—expense	43,782 60
Salaries of deputies and organizers—expense	17,185 90
Salaries of officers and trustees (9)—expense	12,900 00
Salaries and other compensation of committees—expense	290 00
Salaries of office employees (10)—expense	7,123 05
Salaries and fees paid to supreme medical examiners—expense	1,685 75
Salaries and fees paid to subordinate medical examiners—expense	61 25
Traveling and other expenses of officers, trustees and committees—expense	1,173 48
Insurance Department fees—expense	397 46
Advertising, printing and stationery—expense	2,437 61

Postage, express, telegraph and telephone—expense	$1,920 63
Lodge supplies—expense	361 39
Official publication—expense	4,273 44
Legal expense in litigating claims—expense	517 07
Other legal expenses—expense	682 40
Furniture and fixtures—expense	1,135 02
Taxes, repairs and other expenses on real estate—expense	2,325 07
Loss on sale or maturity of ledger assets—reserve	25 00
All other disbursements—reserve, $2,264.61; expense, $4,098.14	6,362 75
Total disbursements	$261,737 84
Balance	$1,473,861 12

LEDGER ASSETS.

Book value of real estate	$53,196 93
Mortgage loans on real estate	522,350 00
Book value of bonds and stocks	870,713 11
Deposited in trust companies and banks on interest	27,301 08
Deposited in banks not on interest	300 00
Total ledger assets	$1,473,861 12

Non-Ledger Assets.

Interest and rents due and accrued	30,156 68
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge	35,738 58
Total admitted assets	$1,539,756 38

LIABILITIES.

Death claims resisted (7)	$5,087 38	
Death claims reported but not yet adjusted (10)	17,000 00	
Total death claims		$22,087 38

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	27,617	$36,373,000 00
Benefit certificates written during the year	6,500	7,403,000 00
Benefit certificates increased during the year	-----	81,000 00
Totals	34,117	$43,857,000 00
Deduct terminated or decreased during the year	3,484	3,867,000 00
Total benefit certificates in force December 31, 1911	30,633	$39,990,000 00

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	27	$38,000 00
Benefit certificates written during the year	100	151,500 00
Benefit certificates received by transfer during the year	14	21,500 00
Totals	141	$211,000 00
Deduct terminated or decreased during the year	14	17,000 00
Total benefit certificates in force December 31, 1911	127	$194,000 00

Received during the year from members in California: Mortuary, $1,083.43; per capita, $49.50. (See section 79 of society's laws.)

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	19	$21,062 88
Claims (face value) incurred during the year	146	206,857 83
Totals	165	$227,920 71
Claims paid during the year	148	202,075 43

FRATERNAL AID ASSOCIATION.

(Incorporated February 20, 1894. Commenced business October 14, 1890.)

H. E. Don Carlos, President. L. D. Roberts, Secretary.

Home office: Corner Vermont and Henry streets, Lawrence, Kansas.

Balance from previous year: Mortuary, $101,855.06; emergency, $489,190.03; general, $10,527.80	$601,572 89

INCOME.

Membership fees actually received	$3,853 95
All other assessments or premiums—mortuary, $419,723.42; emergency, $27,985.71; general, $111,927.92	559,637 05
Total received from members	$563,491 00
Deduct payments returned to applicants and members	170 85
Net amount received from members	$563,320 15
Interest on bank deposits—mortuary, $4,054.24; emergency, $7,704.55	11,758 79
Interest on government bonds	1,100 00
Interest on municipal bonds	5,571 26
Gross rents from association's property, including $1,506.00 for association's occupancy of its own buildings	5,747 50
Sale of lodge supplies	2,188 33
From all other sources	151 10
Profits on sale of bonds (Schedule D)	10 00
Total income	$589,847 13

DISBURSEMENTS.

Death claims	$386,849 72
Permanent disability claims	40,692 40
Total benefits paid	$427,542 12
Commissions and fees paid to deputies and organizers	26,788 36
Salaries of deputies and organizers	42,076 81
Salaries of officers and trustees (3)	8,423 85
Salaries and other compensation of committees (per diem)	3,045 00
Salaries of office employees (14)	8,286 19
Traveling and other expenses of officers, trustees and committees	3,195 65
Insurance Department fees	490 58
Rent	1,506 00
Advertising, printing and stationery	3,683 41
Postage, express, telegraph and telephone	3,292 45
Lodge supplies	2,079 42
Official publication	6,091 64
Expense of supreme lodge meeting	9,559 37
Other legal expenses	956 09
Furniture and fixtures	480 50
Taxes, repairs and other expenses on real estate	3,362 10
Loss on sale or maturity of ledger assets	12 65
Traveling expenses of organizers, officers' bonds, etc.	19,260 77
Total disbursements	$570,132 96
Balance	$621,287 06

LEDGER ASSETS.

Book value of real estate	$58,937 10
Book value of bonds and stocks	191,716 26
Deposited in trust companies and banks on interest: Certificates of deposit	362,500 00
Cash in association's office, $604.32; deposited in banks (daily balance on interest), $7,529.38	8,133 70
Total ledger assets	$621,287 06

Amount brought forward	$621,287 06

Non-Ledger Assets.

Interest and rents due and accrued	$6,088 30
Market value of real estate over book value	6,062 90
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge	48,500 00
Cash on hand with General Treasurer account Fraternal Aid Building Fund	530 14
Gross assets	$682,468 40

Deduct Assets Not Admitted.

Book value of bonds over market value	4,366 26
Total admitted assets	$678,102 14

LIABILITIES.

Death claims due and unpaid (28)	$45,500 00	
Death claims adjusted not yet due (2)	3,000 00	
Total death claims		$48,500 00

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	36,944	$47,339,750 00
Benefit certificates written during the year	7,978	8,593,250 00
Totals	44,922	$55,933,000 00
Deduct terminated or decreased during the year	4,309	3,879,750 00
Total benefit certificates in force December 31, 1911	40,613	$52,053,250 00

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	4,669	$6,237,500 00
Benefit certificates written during the year	613	632,000 00
Totals	5,282	$6,869,500 00
Deduct terminated or decreased during the year	402	393,500 00
Total benefit certificates in force December 31, 1911	4,880	$6,476,000 00

Received during the year from members in California: Mortuary, $59,347.67; reserve, $3,958.96; expense, $15,833.98: Total, $79,167.51.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	22	$38,033 34
Claims (face value) incurred during the year	300	416,500 00
Totals	322	$454,533 34
Claims paid during the year	292	386,849 72
Balance	30	$67,683 62
Saved by compromising or scaling down claims during the year		19,183 62
Claims unpaid December 31, 1911	30	$48,500 00

California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	4	$7,850 00
Claims (face value) incurred during the year	33	43,500 00
Totals	37	$51,350 00
Claims paid during the year	31	45,500 00
Balance	6	$5,850 00
Saved by compromising or scaling down claims during the year		2,150 00

EXHIBIT OF PERMANENT DISABILITY CLAIMS.

Total claims.	Number.	Amount.
Claims incurred during the year	125	$40,692 40
Claims paid during the year	125	40,692 40
California claims.	Number.	Amount.
Claims incurred during the year	6	$2,600 00
Claims paid during the year	6	2,600 00

SUPREME LODGE FRATERNAL BROTHERHOOD.

JAMES A. FOSHAY, President. H. V. DAVIS, Secretary.

(Incorporated February 3, 1896. Commenced business March 17, 1896.)

Home Office: 845 South Figueroa street, Los Angeles, California.

Balance from previous year: Mortuary funds, $415,604.01; expense funds, $20,191.20	$435,795 21

INCOME.

Membership fees actually received—expense	$8,034 00
Assessments or premiums during first twenty-four months of membership of which all or an extra percentage is used for expenses—mortuary, $57,290.60; expense, $133,678.08	190,968 68
All other assessments or premiums—mortuary	458,753 35
Dues and per capita tax—expense	86,320 60
Medical examiners' fees actually received—expense	2,055 50
Total received from members	$746,132 13
Deduct payments returned to applicants and members	29 80
Net amount received from members	$746,102 33
Interest on mortgage loans—mortuary	14,739 23
Interest on bonds and dividends on stocks—mortuary	6,850 00
Interest from all other sources—mortuary, $2,057.43; expense, $84.71	2,142 14
Gross rents from association's property—mortuary, $2,911.77; expense, $4,355.50	7,267 27
Sale of lodge supplies—expense	12,274 33
From all other sources:	
Printing office—expense	133 76
Miscellaneous—expense	78 19
Total income	$802,587 25

DISBURSEMENTS.

Death claims—mortuary	$397,449 04
Permanent disability claims—mortuary	8,976 24
Sick and accident claims—mortuary	36,432 82
Old age benefits—mortuary	750 11
Patricians of Brotherhood claims	40 00
Total benefits paid	$443,648 21
Commissions and fees paid to deputies and organizers	46,306 80
Salaries of deputies and organizers	98,776 25
Salaries of officers and trustees (11)	20,154 80
Salaries of office employees	19,606 36
Salaries and fees paid to supreme medical examiners	3,600 00
Salaries and fees paid to subordinate medical examiners	1,539 50
Traveling and other expenses of officers, trustees and committees	2,806 19
Insurance Department fees	324 95

Rent	$2,911 77
Advertising, printing and stationery—expense	4,515 63
Postage, express, telegraph and telephone—expense	4,539 41
Lodge supplies—expense	10,298 94
Official publication—expense	7,597 43
Legal expense in litigating claims—mortuary	556 00
Other legal expenses—expense	27 25
Furniture and fixtures—expense	276 52
Taxes, repairs and other expenses on real estate—expense	3,027 53
All other disbursements—expense	34,629 35
Total disbursements	$261,494 68
Balance	$533,239 57

LEDGER ASSETS.

Book value of real estate	$72,794 30
Mortgage loans on real estate	288,075 00
Book value of bonds and stocks	138,335 00
Deposited in trust companies and banks on interest	11,079 45
Cash in association's office, $389.61; deposited in banks at 2 per cent on daily balances, $21,262.58	21,652 19
Bills receivable	1,303 63
Total ledger assets	$533,239 57

Non-Ledger Assets.

Interest and rents due and accrued		6,293 49
Market value of real estate over book value		47,705 70
Market value of bonds and stocks over book value		3,687 40
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge		65,150 00
Safes and lodge supplies	$5,313 00	
Furniture and fixtures	6,100 00	
Printing plant	4,000 00	
		15,413 00
Gross assets		$671,489 16

Deduct Assets Not Admitted.

Bills receivable	$1,303 63	
Safes and lodge supplies	5,313 00	
Furniture and fixtures	6,100 00	
Printing plant	4,000 00	
		16,716 63
Total admitted assets		$654,772 53

LIABILITIES.

Death claims resisted (4)	$3,500 00	
Death claims reported but not yet adjusted (42)	37,250 00	
Total death claims		$40,750 00
Sick and accident claims reported but not yet adjusted (8)		199 28
Total unpaid claims		$40,949 28
Salaries, rents, expenses, commissions, etc., due or accrued		13,548 43
Taxes due or accrued		547 23
Total liabilities		$55,044 94

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	46,202	$587,935 00
Benefit certificates written during the year	13,798	153,950 00
Benefit certificates increased during the year	-----	1,110 00
Totals	60,000	$742,995 00
Deduct terminated or decreased during the year	9,787	113,325 00

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	29,459	$356,875 00
Benefit certificates written during the year	7,502	81,725 00
Benefit certificates increased during the year	-----	695 00
Totals	36.961	$439.295 00
Deduct terminated or decreased during the year	5.501	61.665 00
Total benefit certificates in force December 31, 1911	31,460	$377.630 00

Received during the year from members in California: Mortuary, $308,161.95; expense, $72,696.49: Total, $380,858.44

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	51	$65,557 45
Claims (face value) incurred during the year	311	376,296 59
Totals	362	$441,854 04
Claims paid during the year	314	397,449 04
Balance	48	$44,405 00
Saved by compromising or scaling down claims during the year	-----	2,630 00
Claims dropped during the year	2	1,025 00
Claims unpaid December 31, 1911	46	$40,750 00

California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	27	$34,207 45
Claims (face value) incurred during the year	196	230.490 64
Totals	223	$264,698 09
Claims paid during the year	195	239,468 09
Balance	28	$25.230 00
Saved by compromising or scaling down claims during the year	-----	1.855 00
Claims dropped during the year	1	25 00
Claims unpaid December 31, 1911	27	$23,350 00

EXHIBIT OF PERMANENT DISABILITY CLAIMS.

Total claims.	Number.	Amount.
Claims incurred during the year	69	$8.976 24
Claims paid during the year	69	8.976 24

California claims.	Number.	Amount.
Claims incurred during the year	42	$4.250 00
Claims paid during the year	42	4.250 00

EXHIBIT OF SICK AND ACCIDENT CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	20	$903 53
Claims incurred during the year	1.088	36.597 83
Totals	1,108	$37,501 36
Claims paid during the year	1,073	36.432 82
Claims rejected during the year	27	869 26
Claims unpaid December 31, 1911	8	$199 28

California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	8	$191 42
Claims incurred during the year	555	18.027 96
Totals	563	$18.219 38
Claims paid during the year	545	17.709 75
Claims rejected during the year	15	468 56
Claims unpaid December 31, 1911	3	$41 07

EXHIBIT OF OLD AGE AND OTHER CLAIMS.

Total claims.	Number.	Amount.
Claims incurred during the year	6	$750 11
Claims paid during the year	6	750 11

California claims.	Number.	Amount.
Claims incurred during the year	5	$400 00
Claims paid during the year	5	400 00

SUPREME RULING

FRATERNAL MYSTIC CIRCLE.

(Incorporated April 27, 1895. Commenced business January 1, 1885.)

F. H. Duckwitz, President. J. D. Myers, Secretary.

Home Office: 1913 Arch street, Philadelphia, Pennsylvania.

Balance from previous year: Mortuary, $254,018.40; expense, $27,735.20	$381,753 60

INCOME.

Assessments or premiums during first nine months of membership of which all or an extra percentage is used for expenses	$29,749 55
All other assessments or premiums—mortuary, $456,716.81; expense, $59,210.99	515,927 80
Medical examiners' fees actually received—expense	761 75
Other payments by members: Changing certificates	190 50
Total received from members	$546,629 60
Interest on mortgage loans—mortuary	13,571 63
Interest on bonds and dividends on stocks—mortuary	1,125 00
Interest from all other sources—mortuary, $1,690.96; expense, $889.59	2,580 55
Gross rents from association's property, including $2,400.00 for association's occupancy of its own buildings—mortuary	4,559 15
Sale of lodge supplies—expense	528 54
Exchange	1 88
Total income	$568,996 35

DISBURSEMENTS.

Death claims—mortuary	$407,317 84
Permanent disability claims—mortuary	15,073 66
Sick and accident claims—mortuary	3,327 83
Old age benefits—mortuary	9,571 41
Withdrawal payments—mortuary	1,316 46
Total benefits paid	$436,607 20
Commissions and fees paid to deputies and organizers	40,110 36
Salaries and expenses of deputies and organizers	15,777 30
Salaries of managers or agents not deputies or organizers	6,062 63
Salaries of officers and trustees (4)	8,850 00
Salaries and other compensation of committees	340 00
Salaries of office employees (18)	12,530 04
Salaries and fees paid to supreme medical examiners	1,500 00
Salaries and fees paid to subordinate medical examiners	2,296 60
Traveling and other expenses of officers, trustees and committees	1,798 48
For collection and remittance of assessments and dues	559 00
Insurance Department fees	528 47
Rent	2,400 00

Amount brought forward	$15,631 78
Lodge and office supplies—expense	1,909 66
Official publication—expense	4,328 30
Expense of supreme lodge meeting—expense	5,321 70
Legal expense in litigating claims—expense	3,271 48
Other legal expenses—expense	1,044 33
Furniture and fixtures—expense	92 50
Taxes, repairs and other expenses on real estate—mortuary	2,696 71
All other disbursements—expense	1,776 76
Total disbursements	$555,604 62
Balance	$395,145 33

LEDGER ASSETS.

Book value of real estate	$65,356 63
Mortgage loans on real estate	229,700 00
Book value of bonds and stocks	29,180 00
Deposited in trust companies and banks on interest	68,837 60
Cash in association's office	2,071 10
Total ledger assets	$395,145 33

Non-Ledger Assets.

Interest and rents due and accrued		4,699 45
Market value of real estate over book value		17,143 37
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge		44,896 99
Furniture, fixtures, supplies, etc.	$6,000 00	
Personal and ruling balances	5,557 02	
Temporary disability benefits loaned on certificates in force, less allowance for probable lapse	20,000 00	
		31,557 02
Gross assets		$493,442 16

Deduct Assets Not Admitted.

Balance due from organizers, etc., not secured by bonds	$5,557 02	
Book value of bonds and stocks over market value	990 00	
Furniture, fixtures, supplies, etc.	6,000 00	
Temporary disability benefits loaned on certificates in force, less allowance of probable lapse	20,000 00	
		32,547 02
Total admitted assets		$460,895 14

LIABILITIES.

Death claims resisted (8)	$12,543 84	
Death claims reported but not yet adjusted (53)	52,464 79	
Present value of deferred death and disability claims payable in installments	47,188 51	
Total death claims		$112,197 14
Salaries, rents, expenses, commissions, etc., due or accrued		6,601 50
Taxes due or accrued		22 10
Advance assessments		738 49
Total liabilities		$119,559 23

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	21,095	$23,587,750 00
Benefit certificates written during the year	2,152	1,947,550 00
Totals	23,247	$25,535,300 00
Deduct terminated or decreased during the year	3,118	3,314,750 00
Total benefit certificates in force December 31, 1911	20,129	$22,220,550 00

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	73	$83,500 00
Benefit certificates written during the year	1	2,500 00
Totals	74	$86,000 00
Deduct terminated or decreased during the year	4	6,500 00
Total benefit certificates in force December 31, 1911	70	$79,500 00

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	121	$130,537 14
Claims (face value) incurred during the year	348	405,631 83
Totals	469	$536,168 97
Claims paid during the year	346	407,317 84
Balance	123	$128,851 13
Saved by compromising or scaling down claims during the year		8,010 25
Claims rejected during the year	2	2,000 00
Claims unpaid December 31, 1911	121	$118,840 88
Less interest account commuted value		6,643 74
Total		$112,197 14

California claims.	Number.	Amount.
Claims incurred during the year	1	$2,500 00
Claims paid during the year	1	2,500 00

EXHIBIT OF PERMANENT DISABILITY CLAIMS.

Total claims.	Number.	Amount.
Claims incurred during the year	33	$15,073 66
Claims paid during the year	33	15,073 66

EXHIBIT OF SICK AND ACCIDENT CLAIMS.

Total claims.	Number.	Amount.
Claims incurred during the year	124	$3,327 83
Claims paid during the year	124	3,327 83

EXHIBIT OF OLD AGE AND OTHER CLAIMS.

Total claims.	Number.	Amount.
Claims incurred during the year	32	$9,571 41
Claims paid during the year	32	9,571 41

SUPREME LODGE
FRATERNAL UNION OF AMERICA.

F. F. Roose, President. Samuel S. Bates, Secretary.

(Incorporated, 1896. Commenced business September, 1896.)

Home Office: 1430 Champa street, Denver, Colorado.

Balance from previous year: Mortuary and disability funds, $2,547.93; reserve, $276,796.82; reserve options B, C, D, E., $2,142.35; expense, $16,269.60	$297,756 70

INCOME.

Membership fees actually received	$4,811 30
Assessments or premiums during first six months of membership of which all or an extra percentage is used for expenses	20,403 50
All other assessments or premiums—mortuary and disability	

Amount brought forward	$363,209 13
Dues and per capita tax	51,714 85
Other payments by members	541 50
Total received from members	$419,855 48
Deduct payments returned to applicants and members—mortuary and disability, $400.35; expense, $162.40	562 75
Net amount received from members	$419,292 73
Interest on mortgage loans	9,083 82
Interest on bonds—mortuary and disability	2,400 83
Interest from all other sources—mortuary and disability, $738.50; reserve options B, C, D and E, $85.69	824 19
Gross rents from association's property, including $2,350.00 for association's occupancy of its own buildings—mortuary and disability	6,980 93
Sale of lodge supplies—expense	1,009 66
From all other sources—expense	57 00
Total income	$439,649 16

DISBURSEMENTS.

Death claims—mortuary and disability	$335,266 73
Permanent disability claims—mortuary and disability	2,697 00
Accident claims—mortuary and disability	5,705 00
Old age benefits—reserve	3,896 73
Total benefits paid	$347,565 46
Commissions and fees paid to deputies and organizers	32,477 03
Salaries of deputies and organizers	18,443 01
Salaries of officers and trustees (5)	11,400 00
Other compensation of officers and trustees	1,826 80
Salaries of office employees (13)	10,574 95
Salaries and fees paid to supreme medical examiners	2,550 00
Traveling and other expenses of officers, trustees and committees	2,411 13
For collection and remittance of assessments and dues, etc.	184 80
Insurance Department fees	389 00
Rent, including $2,350.00 for association's occupancy of its own buildings	2,516 50
Advertising, printing and stationery	4,497 45
Postage, express, telegraph and telephone	3,240 76
Lodge supplies	2,267 79
Official publication	5,118 70
Legal expense in litigating claims and other legal expenses	3,215 00
Furniture and fixtures	641 16
Taxes, repairs and other expenses on real estate—mortuary and disability	4,035 71
Loss on sale or maturity of ledger assets—reserve	643 75
All other disbursements—reserve, $257.50; expense, $3,044.83	3,302 33
Total disbursements	$457,301 23
Balance	$280,104 63

LEDGER ASSETS.

Book value of real estate	$55,625 83
Mortgage loans on real estate	143,370 00
Book value of bonds	47,585 75
Deposited in trust companies and banks on interest	32,723 05
Deposited in banks not on interest	800 00
Total ledger assets	$280,104 63

Non-Ledger Assets.

Interest and rents due and accrued		$1,588 38
Market value of real estate over book value		13,016 47
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge		30,232 32
Furniture and fixtures	$4,677 83	
Supplies on hand	4,088 22	
Total		8,766 05
Gross assets		$333,707 85

Deduct Assets Not Admitted.

Book value of bonds and stocks over market value	125 75
Total admitted assets	$333,582 10

LIABILITIES.

Death claims due and unpaid (2)	$3,837 29	
Death claims resisted (6)	5,882 75	
Death claims reported but not yet adjusted (49)	60,222 27	
Present value of deferred permanent total disability claims payable in installments	16,095 78	
Total death claims		$86,038 09
Permanent disability claims reported but not yet adjusted (5)		650 00
Accident claims reported but not yet adjusted (2)		100 00
Total unpaid claims		$86,788 09

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	30,206	$39,986,350 00
Benefit certificates written during the year	5,872	6,645,700 00
Totals	36,078	$46,632,050 00
Deduct terminated or decreased during the year	4,968	5,672,750 00
Total benefit certificates in force December 31, 1911	31,110	$40,959,300 00

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	618	$783,550 00
Benefit certificates written during the year	19	18,500 00
Totals	637	$802,050 00
Deduct terminated or decreased during the year	34	29,900 00
Total benefit certificates in force December 31, 1911	603	$772,150 00

Received during the year from members in California: Mortuary, reserve, disability and accident, $7,503.07; expense, $1,130.17: Total, $8,633.24.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	60	$69,173 98
Claims (face value) incurred during the year	282	338,908 98
Totals	342	$408,082 96
Claims paid during the year and 1 suit dismissed	285	336,267 85
Balance	57	$71,815 11
Saved by compromising or scaling down claims during the year	----	1,872 80
Claims rejected during the year	4	3,390 65
Claims unpaid December 31, 1911	53	$66,551 66

California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	1	$1,071 30

EXHIBIT OF PERMANENT DISABILITY CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	3	$150 00
Claims incurred during the year	37	3,247 00
Totals	40	$3,397 00
Claims paid during the year	34	2,697 00
Balance	6	$700 00
Claims rejected during the year	1	50 00
Claims unpaid December 31, 1911	5	$650 00

EXHIBIT OF SICK AND ACCIDENT CLAIMS.

Total claims.	Number.	Amount.
Claims incurred during the year	88	$6,090 00
Claims paid during the year	81	5,705 00
Claims rejected during the year	5	$285 00
Claims unpaid December 31, 1911	2	100 00

EXHIBIT OF OLD AGE CLAIMS.

Total claims.	Number.	Amount.
Claims incurred during the year	5	$3,850 00
Claims paid during the year	5	3,850 00

THE GRAND FRATERNITY.

FREDERICK GASTON, President. W. E. GREGG, Secretary.

Incorporated October 7, 1893. Commenced business January 1, 1886.)

Home Office: 1414 Arch street, Philadelphia, Pennsylvania.

Balance from previous year: Reserve, $205,001.88; sick and accident, $1,786.44; expense, $956.65	$207,744 87

INCOME.

Assessments or premiums during first twelve months of membership of which all or an extra percentage is used for expenses—expense	$40,788 10
All other assessments or premiums—mortuary, $128,091.11; sick and accident, $6,195.73; expense, $82,000.00	216,286 84
Other payments by members: Certificate fees—expense	214 10
Total received from members	$257,289 04
Interest on mortgage loans—mortuary	330 00
Interest on liens—mortuary	5,262 99
Interest on bonds—mortuary	3,194 20
Interest from all other sources: Bank deposits—expense	209 06
Gross rents from association's property, including $3,000.00 for association's occupancy of its own buildings—mortuary	7,220 65
Certificate liens paid off—reserve	2,777 96
Profit on sale of bonds—reserve	193 75
Total income	$276,477 65

DISBURSEMENTS.

Death claims—mortuary	$121,632 91
Permanent disability claims—mortuary	790 00
Sick and accident claims—sick and accident	5,195 46
Old age benefits—mortuary	6,000 00
Annuity payments—mortuary	4,408 17
Surrender payments—reserve	2,929 21
Total benefits paid	$140,955 75

Commissions and fees paid to deputies and organizers—expense	$53,354 95
Salaries of officers and trustees—expense	15,000 00
Salaries of office employees—expense	10,595 00
Salaries and fees paid to subordinate medical examiners—expense	3,822 00
Traveling and other expenses of officers, trustees and committees—expense	2,440 78
Insurance Department fees—expense	2,112 26
Rent, including $3,000.00 for association's occupancy of its own buildings—expense	3,337 50
Advertising, printing and stationery—expense	2,216 06
Postage, express, telegraph and telephone—expense	1,655 72
Lodge supplies—expense	711 85
Official publication—expense	2,356 68
Expenses of supreme lodge meeting—expense	2,019 21
Legal expense in litigating claims—expense	1,108 67
Other legal expenses—expense	1,386 90
Furniture and fixtures—expense	21 75
Taxes, repairs and other expenses on real estate—mortuary	4,293 83
Loss on sale or maturity of ledger assets—reserve	1,607 06
All other disbursements—mortuary, $4,371.14; expense, $11,437.89	15,809 03
Total disbursements	$264,805 00
Balance	$219,417 52

LEDGER ASSETS.

Book value of real estate	$62,970 00
Mortgage loans on real estate	6,600 00
Loans secured by liens on members' certificates	74,920 57
Book value of bonds	63,936 25
Deposited in trust companies and banks on interest	10,990 57
Total ledger assets	$219,417 52

Non-Ledger Assets.

Interest and rents due and accrued	892 51
Market value of real estate over book value	125,029 87
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge	20,825 81
Certificate liens	285,121 67
Gross assets	$651,287 38

Deduct Assets Not Admitted.

Book value of bonds and stocks over market value	$486 25	
Certificate liens	285,121 67	
Total		285,607 92
Total admitted assets		$365,679 46

LIABILITIES.

Death claims due and unpaid (1)	$333 34	
Death claims resisted (8)	14,000 00	
Death claims reported but not yet adjusted (5)	3,380 00	
Present value of deferred death and disability claims payable in installments	64,059 29	
Total death claims		$81,772 63

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	11,754	$11,721,012 00
Benefit certificates written during the year	3,060	2,568,117 00
Totals	14,814	$14,289,129 00

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	572	$683,550 00
Benefit certificates written during the year	4	3,500 00
Totals	576	$687,050 00
Deduct terminated or decreased during the year	109	140,000 00
Total benefit certificates in force December 31, 1911	467	$547,050 00

Received during the year from members in California: Mortuary, $13,323.93; accident, $142.10; expense, $330.72: Total, $13,796.76.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	20	$37,083 34
Claims (face value) incurred during the year	92	108,380 00
Totals	112	$145,463 34
Claims paid during the year	98	121,632 91
Balance	14	$23,830 43
Saved by compromising or scaling down claims during the year		6,117 09
Claims unpaid December 31, 1911	14	$17,713 34

California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	3	$4,000 00
Claims (face value) incurred during the year	9	16,000 00
Totals	12	$20,000 00
Claims paid during the year	11	19,000 00
Claims unpaid December 31, 1911	1	$1,000 00

EXHIBIT OF PERMANENT DISABILITY CLAIMS.

Total claims.	Number.	Amount.
Claims incurred during the year	2	$790 00
Claims paid during the year	2	790 00

California claims.	Number.	Amount.
Claims incurred during the year	1	$290 00
Claims paid during the year	1	290 00

EXHIBIT OF SICK AND ACCIDENT CLAIMS.

Total claims.	Number.	Amount.
Claims incurred during the year	197	$5,195 46
Claims paid during the year	197	5,195 46

California claims.	Number.	Amount.
Claims incurred during the year	4	$96 71
Claims paid during the year	4	96 71

EXHIBIT OF OLD AGE AND OTHER CLAIMS.

Total claims.	Number.	Amount.
Claims incurred during the year	4	$6,000 00
Claims paid during the year	4	6,000 00

THE HOMESTEADERS.

GEO. A. YOUNG, President. A. H. COREY, Secretary.

(Incorporated January 25, 1906. Commenced business February 13, 1906.)

Home Office: Securities Building, Des Moines, Iowa.

Balance from previous year: Mortuary, $61,782.73; expense, $5,200.30	$66,983 03

INCOME.

Membership fees actually received: Certificate fees—expense	$4,108 00
Assessments or premiums during first twelve months of membership of which all or an extra percentage is used for expenses—mortuary	151,070 12
All other assessments or premiums—expense	70,905 98
Dues and per capita tax—expense	118 60
Medical examiners' fees actually received—expense	9 00
Extension fund fees	9,544 50
Total received from members	$235,756 20
Deduct payments returned to applicants and members	124 55
Net amount received from members—mortuary	$235,631 65
Interest on mortgage loans—surplus benefit and reserve	60 00
Interest from all other sources—mortuary	1,779 20
Gross rents from association's property—expense	24 00
Sale of lodge supplies—expense	1,143 18
Miscellaneous income—expense	2,379 07
Total income	$241,017 10

DISBURSEMENTS.

Death claims—mortuary	$108.846 13
Permanent disability claims—mortuary	1.314 47
Accident claims—mortuary	4,735 50
Total benefits paid	$114,896 10
Commissions and fees paid to deputies and organizers—expense	36,896 66
Salaries of deputies and organizers—expense	6.357 43
Salaries of officers and trustees (12)—expense	8,751 04
Salaries and other compensation of committees—expense	800 00
Salaries of office employees (10)—expense	8,849 95
Other compensation of office employees—expense	92 09
Salaries and fees paid to supreme medical examiners—expense	11 50
Traveling and other expenses of officers, trustees, and committees—expense	2,258 40
Insurance Department fees—expense	545 14
Rent—expense	1,784 37
Advertising, printing and stationery—expense	2,784 03
Postage, express, telegraph and telephone—expense	2.142 99
Lodge supplies—expense	567 73
Official publication—expense	4,315 54
Legal expense in litigating claims—expense	1.192 58
Other legal expenses	900 00
Furniture and fixtures—expense	365 68
All other disbursements—expense	16,489 02
Total disbursements	$210,000 25
Balance	$97,999 88

LEDGER ASSETS.

Mortgage loans on real estate	$32,600 00
Deposited in trust companies and banks on interest	38,768 60
Cash in association's office, $661.80; deposited in banks (not on interest), $25,969.48	26,631 28
Total ledger assets	$97,999 88

Non-Ledger Assets.

Interest and rents due and accrued		626 83
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge		22,000 00
Due from Homesteaders on account	$736 43	
Furniture and fixtures	3,602 59	
Stationery and supplies	2,260 56	
Organizers' balance	1,780 16	

Gross assets		$129,006 45

Deduct Assets Not Admitted.

Due from Homesteaders on account	$736 43	
Furniture and fixtures	3,602 59	
Stationery and supplies	2,260 56	
Organizers' balance	1,780 16	
		8,379 74
Total admitted assets		$120,626 71

LIABILITIES.

Death claims reported but not yet adjusted (8)	$9,147 62
Accident claims reported but not yet adjusted (4)	139 88
Total unpaid claims	$9,287 50
Salaries, rents, expenses, commissions, etc., due or accrued	6,780 67
Total liabilities	$16,068 17

Waived salary and per diem, $4,903.70, and money advanced by supreme officers, $38,500.00, to promote the society, not considered a legal liability on the benefit fund of the society.

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	14,156	$19,338,500 00
Benefit certificates written during the year	4,699	6,876,500 00
Benefit certificates increased during the year	-----	92,000 00
Totals	18,855	$26,307,000 00
Deduct terminated or decreased during the year	3,420	4,970,500 00
Total benefit certificates in force December 31, 1911	15,435	$21,336,500 00

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	220	$339,000 00
Benefit certificates written during the year	190	324,000 00
Benefit certificates increased during the year	-----	1,000 00
Totals	410	$664,000 00
Deduct terminated or decreased during the year	108	185,000 00
Total benefit certificates in force December 31, 1911	302	$479,000 00

Received during the year from members in California: Mortuary, $2,074.13; expense, $2,369.81: Total, $4,443.94.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	14	$13,872 95
Claims (face value) incurred during the year	100	105,465 12
Totals	114	$119,338 07
Claims paid during the year	105	108,846 13
Balance	9	$10,491 94
Saved by compromising or scaling down claims during the year	-----	574 00
Claims rejected during the year	1	770 32
Claims unpaid December 31, 1911	8	$9,147 62

California claims.	Number.	Amount.
Claims incurred during the year	1	$585 76
Claims paid during the year	1	585 76

EXHIBIT OF PERMANENT DISABILITY CLAIMS.

Total claims.	Number.	Amount.
Claims incurred during the year	2	$1,314 47
Claims paid during the year	2	1,314 47

EXHIBIT OF ACCIDENT CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	2	$154 80
Claims incurred during the year	72	4,720 58
Totals	74	$4,875 38
Claims paid during the year	70	4,735 50
Claims unpaid December 31, 1911	4	$139 88

California claims.	Number.	Amount.
Claims incurred during the year	4	$370 65
Claims paid during the year	4	370 65

HERALDS OF LIBERTY.

TRACY W. PRATT, President. EMANUEL BARRICK, Secretary.

(Incorporated August 31, 1900. Commenced business February 22, 1901.)

Home Office: Philadelphia, Pennsylvania.

Balance from previous year: Mortuary, $27,319.87; reserve, $26,144.39; expense, $29,806.97	$83,271 23

INCOME.

Assessments or premiums during first twelve months of membership of which all or an extra percentage is used for expenses—expense	$20,087 00
All other assessments or premiums—mortuary, $28,129.08; reserve, $28,068.22; expense, $28,196.82	84,394 12
Fees for change in beneficiaries—expense	83 00
Total received from members	$104,564 12
Interest from all other sources: Deposits—expense	1,182 53
Total income	$105,746 65

DISBURSEMENTS.

Death claims—mortuary, $20,500.00; reserve, $20,500.00	$41,000 00
Commissions and fees paid to deputies and organizers—expense	27,156 17
Salaries of officers and trustees (4)—expense	7,435 00
Salaries of office employees (10)—expense	6,092 10
Salaries and fees paid to supreme medical examiners—expense	457 65
Traveling and other expenses of officers, trustees and committees—expense	2,709 48
For collection and remittance of assessments and dues—expense	3,762 99
Insurance Department fees—expense	719 00
Rent—expense	1,279 00
Advertising, printing and stationery—expense	510 72
Postage, express, telegraph and telephone—expense	607 84
Lodge supplies—expense	28 45
Legal expense in litigating claims—expense	295 00
Other legal expenses—expense	1,500 00
Furniture and fixtures—expense	58 00
Office supplies—expense	104 77
Incidentals and grand medical examiner's fee—expense	305 02
Total disbursements	$94,021 19
Balance before transfers	$94,996 69

LEDGER ASSETS.

Mortgage loans on real estate	$8,500 00
Loans secured by pledge of bonds, stocks or other collateral	5,500 00
Deposited in trust companies and banks on interest	45,178 97
Cash in association's office	6,977 83
O. P. Bills' estate for money drawn for personal use from the funds belonging to the Heralds of Liberty, as per statement rendered administrator, December 1, 1911	29,569 12
Total ledger assets	$95,725 92

Non-Ledger Assets.

Interest due and accrued	155 86
Furniture and fixtures	3,448 68
Gross assets	$99,330 46

Deduct Assets Not Admitted.

Claim against O. P. Bills' estate, as per above memorandum, which is good and will be collected from administrator	29,569 12
Total admitted assets	$69,761 34

LIABILITIES.

Death claims due and unpaid (5) since paid	$4,200 00
Death claims adjusted not yet due (1)	1,500 00
Death claims reported but not yet adjusted (7)	8,200 00
Total death claims	$13,900 00
Commissions due deputies	729 23
Total liabilities	$14,629 23

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force Dec. 31, 1910, as per last statement	7,508	$7,531,100 00
Benefit certificates written during the year	1,925	1,925,000 00
Totals	9,433	$9,456,100 00
Deduct terminated or decreased during the year	1,498	1,498,000 00
Total benefit certificates in force December 31, 1911	7,935	$7,958,100 00

Business in California during year.	Number.	Amount.
Benefit certificates in force Dec. 31, 1910, as per last statement	254	$254,000 00
Benefit certificates written during the year	92	92,000 00
Totals	346	$346,000 00
Deduct terminated or decreased during the year	61	61,000 00
Total benefit certificates in force December 31, 1911	285	$285,000 00

Received during the year from members in California: Mortuary, $927.90; reserve, $926.02; expense, $2,062.08: Total, $3,916.00.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	7	$9,400 00
Claims (face value) incurred during the year	59	45,500 00
Totals	66	$54,900 00
Claims paid during the year, including $500.00 advance	53	41,000 00
Balance	13	$13,900 00

California claims.	Number.	Amount.
Claims (face value) incurred during the year	2	$1,000 00
Claims paid during the year	2	1,000 00

SUPREME COURT
INDEPENDENT ORDER OF FORESTERS.

E. G. STEVENSON, President. R. MATHESON, Secretary-Treasurer.

(Incorporated July 1, 1881; May, 1889. Commenced business July, 1881.)

Home Office: Bay and Richmond streets, Toronto, Ontario.

Balance from previous year: Mortuary, $16,388,061.13; disability, sick and funeral, $124,607.58; general, $8,392.00	$16,504,276 71

INCOME.

Membership fees actually received	$202 36
Assessments or premiums—mortuary, $3,736,554.35; disability, sick and funeral, $335,822.97; general, $195,079.30	4,267,456 62
Dues and per capita tax: Extension of order tax—general	267,326 60
Change of policies—general	2,449 52
Total received from members	$4,537,435 10
Interest on mortgage loans: I. O. F., schedule D, $235,662.37; schedule X, $108,029.86—mortuary	343,692 23
Interest on collateral loans, $52,795.97; schedule X, $3,600.00—mortuary	56,395 97
Interest on bonds and dividends on stocks, $321,353.21; schedule X, $87,688.65—mortuary, $409,041.86; less accrued interest paid, $44,441.59	364,600 27
Interest from all other sources, $16,985.01; schedule X, $4,322.88—mortuary, $21,307.89; disability, sick and funeral, $351.26	21,659 15
Gross rents from association's property—mortuary	5,294 06
Refund from general fund for 1910—mortuary	7,457 68
Refund from general fund for 1902–1905—mortuary	217,787 75
From all other sources:	
Sundry refunds—mortuary	776 55
Refund from fraternal fund—general	95,200 96
Surplus funds—mortuary	6,159 41
Redeposited checks, death claims 1910—mortuary	1,570 05
Redeposited checks, old age 1910—mortuary	100 00
Redeposited checks: Funeral, $50.00; sick, $26.30—disability, sick and funeral	76 30
(*b*) Bonds per schedule D—mortuary	3,210 03
(*b*) Bonds per schedule D—mortuary	2,618 34
(*c*) Stocks per schedule D—mortuary	78,800 00
Total income	$5,742,842 85

DISBURSEMENTS.

Death claims—mortuary	$2,316,740 74
Permanent disability claims—mortuary	114,971 31
Sick and accident claims—disability, sick and funeral	256,763 27
Old age benefits—mortuary	244,209 06
Expectation of life—mortuary	15,400 00
Funeral claims—disability, sick and funeral	20,741 27
Total benefits paid	$2,968,825 65
Commissions and fees paid to deputies and organizers—disability, sick and funeral, $4,015.84; general, $36,847.80	40,863 64
Salaries of deputies and organizers—disability, sick and funeral, $13,891.93; general, $125,611.22	139,503 15
Organizing expenses—disability, sick and funeral, $13,514.50; general, $131,622.96	145,137 46
Salaries of officers and trustees (6)—disability, sick and funeral, $3,399.99; general, $30,600.01	34,000 00

Amount brought forward	$3.338.391 70
Salaries of office employees (144)—disability, sick and funeral, $13.502.49; general, $81.731.74	95,234 23
General expense account—disability, sick and funeral, $225.15; general, $2,771.39	2.996 54
Hospital sanitarium, expense and donations—general	21.549 92
Inspection of securities, expense—general	3.923 80
Fraternal societies—general	1,361 15
Traveling and other expenses of officers, trustees and committees—general	7,514 08
Bonds, $226.00; fire insurance, $76.57; temporary advance to high courts, $550.00—general	852 57
Insurance Department fees—general	995 56
Insurance inspection—general	6.138 28
Rent, including association's occupancy of its own buildings—disability, sick and funeral, $848.15; general, $7.632.85	8.481 00
Advertising, printing and stationery—disability, sick and funeral, $309.91; general, $2,786.04	3.095 95
Postage, express, telegraph and telephone—disability, sick and funeral, $1.549.05; general, $13.929.58	15.478 63
Executive expenses—general	1,142 20
Official publication—disability, sick and funeral, $2.624.47; general, $24.066.78	26.691 25
Expense of supreme lodge meeting—general	28.179 30
Legal expense in litigating claims—general	683 72
Other legal expenses—general	8.413 26
Furniture and fixtures—general	135 50
Taxes, repairs and other expenses on investments—mortuary	1.647 59
Loss on sale or maturity of ledger assets: Mortgages—mortuary	2.222 40
(*b*) Bonds per schedule D—mortuary	3.021 21
Total disbursements	$3.578.149 84
Balance	$18,668,969 72

LEDGER ASSETS.

Book value of real estate	$961,763 96
Mortgage loans on real estate	4.043.669 42
Loans secured by pledge of bonds, stocks or other collateral	848.192 26
Book value of bonds, $5.952.083.37; stocks, $832.838.08	6.784.466 45
Deposited in trust companies and banks on interest	367.511 48
Deposited in banks not on interest	3,312 28
I. O. F. funds invested by the Union Trust Company (guaranteed), per schedule X: Part 1, mortgages, $3.004.178.40; part 2, bonds and stocks, $2.435.796.07; part 2, collaterals, $100.000.00; part 2, cash, $120,079.40	5.660.053 87
Total ledger assets	$18.668.969 72

Non-Ledger Assets.

Interest and rents due and accrued:		
Due, $858.97; accrued, $96.496.80, on mortgages		97.355 77
Due, $1.024.87; accrued, $53.445.47, on bonds		54.470 34
Accrued, $10.368.00, on collateral loans		10.368 00
Rents due, $104.90; accrued, $137.70		242 60
Market value of bonds and stocks over book value		90.994 96
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge: Mortuary, $3.602.38; sick and funeral, $12.61; general, $226.28		3.841 27
Temporary loans on investments	$274 70	
Furniture and fixtures	32.250 31	
		32.525 01
Gross assets		$18.958.767 67

Deduct Assets Not Admitted.

Furniture and fixtures	32.250 31
Total admitted assets	$18.926.517 36

LIABILITIES.

Death claims adjusted not yet due (25)	$13,501 22	
Death claims resisted (29)	29,352 74	
Death claims reported but not yet adjusted (88)	89,074 96	
Present value of deferred death and disability claims payable in installments	16,497 88	
Total death claims		$148,426 80
Permanent disability claims adjusted not yet due (106)	$48,476 91	
Permanent disability claims reported but not yet adjusted (234)	193,308 06	
Total permanent disability claims		241,784 97
Sick claims due and unpaid (124)	$2,403 77	
Sick claims resisted (88)	2,973 89	
Funeral claims resisted (12)	600 00	
Sick claims reported but not yet adjusted (154)	4,455 58	
Funeral claims reported but not yet adjusted (17)	844 45	
Total sick and funeral claims		11,277 69
Present value of old age disability		864,662 04
Old age and other benefits due and unpaid (60)		11,020 80
Total unpaid claims		$1,277,172 30
Salaries, rents, expenses, commissions, etc., due or accrued		2,677 91
Advance assessments: Mortuary, $6,736.12; sick and funeral, $152.38; general, $430.54		7,319 04
Accounts unpaid December 30, 1911	$5,343 38	
Due fraternal fund	6,159 41	
Due refund of assessments: Mortuary, $3,905.15; general, $168.47	4,073 62	
		15,576 41
Total liabilities		$1,302,745 66

EXHIBIT OF CERTIFICATES.

Total business of the year	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	236,509	$240,170,989 00
Benefit certificates written during the year	27,385	20,636,187 00
Benefit certificates reinstated	3,741	3,306,460 00
Benefit certificates increased during the year	-----	196,955 00
Totals	267,635	$264,310,591 00
Deduct terminated or decreased during the year	26,064	22,216,804 00
Total benefit certificates in force December 31, 1911	241,571	$242,093,787 00

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	13,288	$171,430 29
Benefit certificates written during the year	2,737	23,607 50
Benefit certificates reinstated during the year	301	3,239 50
Benefit certificates increased during the year	-----	120 00
Totals	16,326	$198,397 29
Deduct terminated or decreased during the year	1,996	20,051 67
Total benefit certificates in force December 31, 1911	14,330	$178,345 62

Received during the year from members in California: Mortuary, $287,563.21; general, $1,957.78; expense, $18,183.46.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	120	$112,597 84
Claims (face value) incurred during the year (2,246), $2,412,402.48; claims (face value) revived during the year (9), $5,824.45	2,255	2,418,226 93
Totals	2,375	$2,530,824 77
Claims paid during the year	2,219	2,316,740 74
Balance	156	$214,084 03
Saved by compromising or scaling down claims during the year	-----	67,155 11
Claims rejected during the year	14	15,000 00
Claims unpaid December 31, 1911	142	$131,928 92

California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	6	$9,500 00
Claims (face value) incurred during the year	102	153,332 00
Totals	108	$162,832 00
Claims paid during the year	99	146,830 14
Balance	9	$16,001 86
Saved by compromising or scaling down claims during the year	-----	4,176 86
Claims unpaid December 31, 1911	9	$11,825 00

EXHIBIT OF PERMANENT DISABILITY CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	226	$130,234 31
Claims incurred during the year	281	248,573 37
Totals	507	$378,807 68
Claims paid during the year	124	114,971 31
Balance	383	$263,836 37
Claims rejected during the year	43	22,051 40
Claims unpaid December 31, 1911	340	$241,784 97

California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	16	$13,500 00
Claims incurred during the year	15	17,975 00
Totals	31	$31,475 00
Claims paid during the year	5	9,125 00
Balance	26	$22,350 00
Claims rejected during the year	3	1,600 00
Claims unpaid December 31, 1911	23	$20,750 00

EXHIBIT OF SICK AND FUNERAL CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement:		
Sick	392	$9,635 73
Funeral	17	846 90
Claims incurred during the year:		
Sick	12,330	259,934 67
Funeral	432	21,600 00
Totals	13,171	$292,017 30
Claims paid during the year:		
Sick	12,268	256,763 27
Funeral	416	20,741 27

Total claims.	Number.	Amount.
Claims rejected during the year and compromised:		
Sick	88	$2,973 89
Funeral	4	261 18
Claims unpaid December 31, 1911:		
Sick	366	9,833 24
Funeral	29	1,644 45

California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement:		
Sick	3	$40 15
Claims incurred during the year:		
Sick	35	1,058 96
Funeral	3	150 00
Totals	41	$1,249 11
Claims paid during the year:		
Sick	37	1,081 68
Funeral	3	150 00

EXHIBIT OF OLD AGE AND OTHER CLAIMS.

Expectation of Life.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	35	$4,997 50
Claims incurred during the year, eight, expectation of life, $15,400.00	1,402	265,632 36
Totals	1,437	$270,629 86
Claims paid during the year, expectation of life, $15,400.00	1,377	259,609 06
Claims unpaid December 31, 1911	60	$11,020 80

California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	2	$500 00
Claims incurred during the year	38	7,100 00
Totals	40	$7,600 00
Claims paid during the year	37	6,750 00
Claims unpaid December 31, 1911	3	$850 00

INDEPENDENT ORDER OF PURITANS.

Charles I. Fink, President. William F. Lander, Secretary.

(Incorporated February 13, 1903. Commenced business March, 1903.)

Home Office: Pittsburg, Pennsylvania.

Balance from previous year: Mortuary, $31,305.29; disability, $1,148.50; expense, $6,282.83	$38,736 62

INCOME.

Membership fees actually received	$1,935 00
Assessments or premiums during first twelve months of membership of which all or an extra percentage is used for expenses—expense	31,168 90
All other assessments or premiums—mortuary, $70,741.62; disability, $3,276.52; expense, $31,831.96	105,850 10
Dues and per capita tax—expense	105 00
Medical examiners' fees actually received—expense	480 00
Other payments by members—mortuary	15 00
Total received from members	$139,554 00

Deduct payments returned to applicants and members—mortuary

Net amount received from members		$139,364 63
Interest on mortgage loans—mortuary		1,627 03
Interest from all other sources—mortuary		175 40
Sale of lodge supplies—expense		26 10
Protested check—expense		39 77
Mileage rebates—expense		45 00
Principal on mortgage—mortuary		252 97
Miscellaneous—expense		11 45
Total income		$141,542 27

DISBURSEMENTS.

Death claims—mortuary	$50,275 73
Permanent disability claims—mortuary	819 00
Sick and accident claims—disability	5,394 50
Total benefits paid	$56,489 23
Commissions and fees paid to deputies and organizers—expense	42,143 90
Salaries of managers or agents not deputies or organizers—expense	2,600 00
Salaries of officers and trustees (10)—expense	5,484 70
Salaries of office employees (6)—expense	5,159 49
Salaries and fees paid to supreme medical examiners—expense	1,100 00
Salaries and fees paid to subordinate medical examiners—expense	552 00
Traveling and other expenses of officers, trustees and committees—expense	1,601 50
For collection and remittance of assessments and dues—expense	4,765 04
Insurance Department fees—expense	161 67
Rent—expense	1,600 08
Advertising, printing and stationery—expense	1,323 42
Postage, express, telegraph and telephone—expense	1,661 50
Lodge supplies—expense	552 38
Expense of supreme lodge meeting—expense	218 40
Legal expense in litigating claims—expense	420 00
Other legal expenses—expense	200 00
Furniture and fixtures—expense	178 00
All other disbursements—expense	823 76
Total disbursements	$127,035 07
Balance	$53,243 90

LEDGER ASSETS.

Mortgage loans on real estate	$5,079 03
Book value of bonds and stocks	29,000 00
Deposited in trust companies and banks on interest	1,000 00
Cash in association's office, $4,061.84; deposited in banks (not on interest), $13,853.81	17,915 65
Note, secured	249 22
Total ledger assets	$53,243 90

Non-Ledger Assets.

Interest and rents due and accrued, $72.50; interest accrued		498 25
Amount of one assessment collected by subordinate lodges not yet turned over to supreme lodge		11,418 25
Office furniture and fixtures	$2,306 20	
Lodge and office supplies (estimated)	4,000 00	
		6,306 20
Gross assets		$71,466 60

Deduct Assets Not Admitted.

Office furniture and fixtures	$2,306 20	
Lodge and office supplies	4,000 00	
		6,306 20
Total admitted assets		$65,160 40

LIABILITIES.

Death claims reported but not yet adjusted (3)	$829 73	
Present value of deferred death and disability claims payable in installments	56,814 84	
Total death claims		$57,644 57
Sick and accident claims adjusted, and not yet due (9)		185 50
Total unpaid claims		$57,830 07
Advance assessments		2,354 79
Total liabilities		$60,184 86

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	4,638	$8,435,936 78
Benefit certificates written during the year	1,456	1,215,200 00
Totals	6,094	$9,651,136 78
Deduct terminated or decreased during the year	519	1,961,867 78
Total benefit certificates in force December 31, 1911	4,575	$7,689,269 00

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	93	$319,500 00
Benefit certificates written during the year	66	255,000 00
Totals	159	$574,500 00
Deduct terminated or decreased during the year	26	33,130 00
Total benefit certificates in force December 31, 1911	133	$541,370 00

Received during the year from members in California: Mortuary, $2,528.05; sick and accident, $39.20; expense, $5,234.38: Total, $7,801.63.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	45	$37,476 98
Claims (net value) incurred during the year	64	71,443 26
Totals	109	$108,920 24
Claims paid during the year, installments and final settlements	42	50,275 73
Balance	67	$58,644 51
Claims rejected during the year	1	1,000 00
Claims unpaid December 31, 1911, payable in 100 months	66	$57,644 51

EXHIBIT OF PERMANENT DISABILITY CLAIMS.

Total claims.	Number.	Amount.
Claims incurred during the year	4	$819 00
Claims paid during the year	4	819 00

EXHIBIT OF SICK AND ACCIDENT CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	6	$217 50
Claims incurred during the year	181	5,937 50
Totals	187	$6,155 00
Claims paid during the year	163	5,394 50
Claims rejected during the year	15	575 00
Claims unpaid December 31, 1911	9	$185 50

California claims.	Number.	Amount.

KNIGHTS OF COLUMBUS.

JAMES A. FLAHERTY, President. WM. J. MCGINLEY, Secretary.

(Incorporated March 29, 1882. Commenced business February 2, 1882.)

Home Office: 956 Chapel street, New Haven, Connecticut.

Balance from previous year: Mortuary, $50,000.00; reserve, $3,259,234.35; expense, $17,716.44	$3.326.950 79

INCOME.

Assessments or premiums	$94,079 16
Dues and per capita tax—expense	180,753 36
Medical examiners' fees actually received—expense	6,127 83
Additional bonding of council officers—expense	52 52
Fees for final withdrawal cards—expense	500 65
Net amount received from members	$1,134.513 52
Interest on mortgage loans—reserve	16,067 50
Interest on bonds and dividends on stocks—reserve, $105,590.76; mortuary reserve fund of 1892, $1,461.25	107,052 01
Interest from all other sources—mortuary, $1,756.39; reserve, $2,324.41; mortuary reserve fund of 1892, $83.75; expense, $815.48	4,980 03
Gross rents from association's property, including $3,600.00 for associations' occupancy of its own buildings—building	15,379 50
Sale of lodge supplies—expense	16,022 71
Increase by adjustment in book value of bonds—reserve	2,825 42
Income from advertising in official publication—expense	9,049 29
Refund supreme and subordinate councils' supplies—expense	20 51
Refund organization and governing bodies—expense	528 56
Refund state and district deputies—expense	18 35
Refund Insurance Department fees, and furniture and fixtures—expense	125 50
Refund postage, telephone, telegraph and express and bonding subordinate council officers—expense	157 87
Refund clerk hire supreme office account fourth degree—expense	1,040 00
Transferred from special Popes and science fund (non-ledger account)—expense	6,629 91
Total income	$1,314,406 68

DISBURSEMENTS.

Death claims—mortuary	$647,688 33
Salaries of managers or agents not deputies or organizers—expense	2,100 00
Salaries of officers and trustees (4)—expense	13,166 72
Other compensation of officers and trustees—expense	2,615 00
Salaries and other compensation of committees—expense	2,564 96
Salaries of office employees (39)—expense	27,507 90
Salaries and fees paid to supreme medical examiners—expense	6,098 50
Traveling and other expenses of officers, trustees and committees—expense	12,569 39
Insurance Department fees—expense	1,501 87
Rent—expense	3,600 00
Advertising, printing and stationery—expense	5,826 26
Postage, express, telegraph and telephone—expense	7,300 98
Lodge supplies—expense	7,823 44
Official publication—expense	51,670 39
Expense of supreme lodge meeting—expense	20,902 98
Legal expense in litigating claims—expense	954 35
Other legal expenses—reserve, $7,500.00; mortuary reserve fund of 1892, $6,000.00; expense, $5,677.43	19,177 43
Furniture and fixtures—expense	824 25
Taxes, repairs and other expenses on real estate—building	8,464 80
Decrease by adjustment in book value of bonds—reserve, $1,229.33; mortuary reserve fund of 1892, $210.33	1,439 66

Accrued interest included in cost of bonds purchased during 1911, and since written off—reserve, $4,161.37; mortuary reserve fund of 1892, $200.10	$4,361 47
All other disbursements—expense	52,292 26
Total disbursements	$900,450 94
Balance before transfers	$3,740,906 53

LEDGER ASSETS.

Book value of real estate	$191,642 24
Mortgage loans on real estate	353,000 00
Book value of bonds and stocks	3,047,038 91
Deposited in trust companies and banks on interest	145,099 19
Deposited in banks (not on interest)	4,126 19
Total ledger assets	$3,740,906 53

Non-Ledger Assets.

Interest and rents due and accrued		47,294 22
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge		529 48
Furniture and fixtures	$10,892 46	
Supplies (inventory)	5,983 53	
Per capita tax due from subordinate councils	2,308 79	
Supreme physician's fees due from subordinate councils	224 64	
Supplies due from subordinate councils	643 39	
Total		20,052 81
Gross assets		$3,808,783 04

Deduct Assets Not Admitted.

Overdue and accrued interest on bonds in default	$8,080 00	
Book value of real estate over market value	14,992 24	
Book value of bonds and stocks over market value	173,832 11	
Furniture and fixtures	10,892 46	
Supplies (inventory)	5,983 53	
Per capita tax, supreme physician's fees, supplies due from subordinate councils	3,176 82	
Total		216,957 16
Total admitted assets		$3,591,825 88

LIABILITIES.

Death claims due and unpaid (7)	$7,333 35	
Death claims resisted (7)	7,000 00	
Death claims reported but not yet adjusted (62)	62,000 00	
Total death claims		$76,333 35
Salaries, rents, expenses, commissions, etc., due or accrued		3,448 28
Total liabilities		$79,781 63

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	79,925	$83,387,000 00
Benefit certificates written during the year	10,526	11,282,000 00
Totals	90,451	$94,669,000 00
Deduct terminated or decreased during the year	4,194	4,386,000 00
Total benefit certificates in force December 31, 1911	86,257	$90,283,000 00

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	1,106	$1,180,000 00
Benefit certificates written during the year	126	149,000 00
Totals	1,232	$1,329,000 00
Deduct terminated or decreased during the year	57	65,000 00
Total benefit certificates in force December 31, 1911	1,175	$1,264,000 00

Received during the year from members in California: Mortuary, $13,297.81; expense, $3,488.57: Total, $16,786.38.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	96	$101,666 68
Claims (face value) incurred during the year	603	624,305 00
Totals	699	$725,971 68
Claims paid during the year	623	647,688 33
Balance	76	$78,283 35
Saved by compromising or scaling down claims during the year	----	1,950 00
Claims unpaid December 31, 1911	76	$76,333 35

California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	2	$2,000 00
Claims (face value) incurred during the year	7	9,000 00
Totals	9	$11,000 00
Claims paid during the year	7	9,000 00
Claims unpaid December 31, 1911	2	$2,000 00

SUPREME LODGE, KNIGHTS OF HONOR.

EDWIN C. WOOD, S. D., President. FRANK B. SEIGER, S. R. & TR., Secretary.

(Incorporated June 20, 1884. Commenced business June 30, 1873.)

Home Office: 816 Olive street, St. Louis, Missouri.

Balance from previous year: Mortuary, $15,232.31; reserve, $183,143.87; expense, $21,628.84	$220,005 02

INCOME.

All other assessments or premiums—mortuary	$1,466,410 54
Dues and per capita tax—expense	61,458 10
Refund, account error in ages—reserve	299 85
Net amount received from members	$528,168 49
Interest on bonds and dividends on stocks—reserve	12,464 44
Interest from all other sources—mortuary, $1,589.84; reserve, $90.00; expense, $465.85	2,145 69
Sale of lodge supplies—expense	115 48
Benefit certificates—expense	322 00
Fines	47 05
Deputies overpayment returned—expense	50 00
Bonds—reserve	40 00
By transfer from mortuary fund—reserve	131,700 00
By transfer from mortuary fund—expense	11,787 81
Total income	$1,686,840 96

DISBURSEMENTS.

Death claims—mortuary	$1,297,250 00
Litigated cases settled—mortuary	7,485 00
Relief to members under law XXXVIII—mortuary	22,739 00
Total benefits paid	$1,327,474 00
Commissions and fees paid to deputies and organizers—expense	3,346 22
Salaries of deputies and organizers—expense	15,923 03
Salaries of managers or agents not deputies or organizers—expense	3,898 45
Salaries of officers and trustees (3)—expense	6,677 64
Salaries of office employees (7)—expense	9,329 92
Salaries and fees paid to supreme medical examiners—expense	1,291 65
Traveling and other expenses of officers, trustees and committees	2,428 36
Insurance Department fees—expense	784 02
Rent—expense	2,160 00
Advertising, printing and stationery—expense	1,499 41
Postage, express, telegraph and telephone—expense	1,317 75
Lodge supplies—expense	426 02
Official publication—expense	3,030 38
Expense of supreme lodge meeting—expense	8,443 28
Legal expense in litigating claims—expense	1,326 50
Transferred to reserve fund—mortuary	131,700 00
Transferred to expense fund—mortuary	11,787 81
All other disbursements—reserve, $2,257.55; expense, $2,177.54	4,435 09
Total disbursements	$1,537,279 53
Balance	$369,566 45

LEDGER ASSETS.

Book value of bonds and stocks	$325,295 00
Deposited in trust companies and banks on interest	35,449 79
Cash in association's office	5,821 66
Certificate of deposit, National Bank of Commerce	3,000 00
Total ledger assets	$369,566 45

Non-Ledger Assets.

Interest due and accrued on bonds		7,998 81
Market value of bonds and stocks over book value		5,135 00
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge		117,451 25
Due from grand and subordinate lodges for supplies	$314 06	
Office furniture	1,750 00	
Supplies	531 19	
		2,595 25
Gross assets		$502,746 76

Deduct Assets Not Admitted.

Overdue and accrued interest on bonds in default	$600 00	
Office furniture	1,750 00	
Supplies	531 19	
Due from grand and subordinate lodges	314 06	
		3,195 25
Total admitted assets		$499,551 51

LIABILITIES.

Death claims due and unpaid (4 and 2, parts)	$8,563 46
Death claims adjusted not yet due (244)	416,400 00
Death claims resisted (1)	2,000 00
Death claims reported but not yet adjusted (49)	79,200 00

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	19,024	$29,873,800 00
Benefit certificates written during the year	1,282	1,240,500 00
Totals	20,306	$31,118,800 00
Deduct terminated or decreased during the year	2,357	3,161,500 00
Total benefit certificates in force December 31, 1911	17,949	$27,957,300 00
Business in California during year.	**Number.**	**Amount.**
Benefit certificates in force December 31, 1910, as per last statement	557	$936,000 00
Benefit certificates written during the year	1	1,000 00
Totals	558	$937,000 00
Deduct terminated or decreased during the year	104	166,000 00
Total benefit certificates in force December 31, 1911	454	$771,000 00

Received during the year from members in California: Mortuary, $47,620.15; expense, $1,692.20: Total, $49,312.35.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	275	$469,613 46
Claims (face value) incurred during the year	787	1,333,800 00
Totals	1,062	$1,803,413 46
Claims paid during the year	764	1,297,250 00
Claims unpaid December 31, 1911	298	$506,163 46
California claims.	**Number.**	**Amount.**
Claims unpaid December 31, 1910, as per last statement	14	$24,500 00
Claims (face value) incurred during the year	33	59,800 00
Totals	47	$84,300 00
Claims paid during the year	35	61,800 00
Balance	12	$22,500 00

SUPREME LODGE, KNIGHTS OF PYTHIAS.

Insurance Department.

Union B. Hunt, President. W. O. Powers, Secretary.

(Reincorporated June, 1894. Commenced business October, 1877.)

Home Office: Indianapolis, Indiana.

Balance from previous year: Mortuary, $765,171.02; reserve, $2,219,042.23; expense, $462,173.34	$3,446,386 59

INCOME.

Membership fees actually received—expense	$7,637 50
Assessments or premiums—mortuary, $1,092,524.79; reserve, $1,015,129.56; expense, $407,011.66	2,514,665 92
Total received from members	$2,522,303 42
Deduct payments returned to applicants and members—mortuary	3,996 91
Net amount received from members	$2,518,306 51
Interest on mortgage loans—mortuary, $1,680.39; expense, $7,000.00	8,680 39
Interest on bonds and dividends on stocks—mortuary, $110,652.38; expense, $36,871.06	147,523 44

Interest from all other sources—mortuary	$2,549 14
Gross rent from association's property—mortuary	175 00
Miscellaneous fees—expense	52 75
Protested checks—expense	4,108 21
Increase in book value, real estate—mortuary	7,500 00
Accrual of discount—mortuary, $709.00; expense, $45.91	754 91
Total income	$2,689,650 35

DISBURSEMENTS.

Death claims—mortuary	$1,650,691 38
Option "J" settlements—mortuary	18,692 90
Total benefits paid	$1,669,384 28
Commissions and fees paid to deputies and organizers—expense	202,554 95
Salaries of deputies and organizers—expense	4,414 97
Salaries of officers and trustees (3)—expense	11,225 00
Other compensation of officers and trustees: Mileage and per diem, board of control—expense	6,823 40
Salaries of office employees (41)—expense	40,240 05
Salaries and fees paid to supreme medical examiners—expense	3,600 00
Salaries and fees paid to subordinate medical examiners—expense	13,617 00
Traveling and other expenses of officers, trustees and committees—expense	9,717 24
For collection and remittance of assessments and dues	120,780 70
Insurance Department fees—expense	794 67
Rent—expense	4,989 96
Advertising, printing and stationery—expense	12,805 25
Postage, express, telegraph and telephone—expense	11,429 55
Official publication—expense	5,459 75
Expense of supreme lodge meeting—expense	781 57
Legal expense in litigating claims and other legal expenses—expense	10,438 89
Furniture and fixtures—expense	1,756 65
Taxes, repairs and other expenses on real estate—expense	871 23
Loss on sale or maturity of ledger assets—mortuary, $5,567.95; expense, $198.15	5,766 10
All other disbursements—expense	12,896 35
Total disbursements	$2,150,347 56
Balance	$3,985,689 38

LEDGER ASSETS.

Book value of real estate		$1,500 00
Mortgage loans on real estate		263,500 00
Book value of bonds and stocks		3,619,250 23
Deposited in trust companies and banks on interest		25,681 07
Cash in association's office		750 00
Organizers' balances		2,799 88
Certificate loans, fourth class	$66,367 95	
Certificate loans, fifth class	5,840 25	
		72,208 20
Total ledger assets		$3,985,689 38

Non-Ledger Assets.

Interest and rents due and accrued		40,267 26
Market value of bonds and stocks over book value		99,518 17
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge		28,192 62
Postage on hand	$415 43	
Buttons, emblems, etc.	248 15	
Furniture and fixtures	8,207 81	
		8,871 39

Gross assets		$4,162,538 82

Deduct Assets Not Admitted.

Balance due from organizers not secured by bonds	$2,799 88	
Buttons, emblems, etc.	248 15	
Furniture and fixtures	8,207 81	
		11,255 84
Total admitted assets		$4,151,282 98

LIABILITIES.

Death claims resisted (8)	$17,000 00	
Death claims reported but not yet adjusted (87)	141,000 00	
Total death claims		$158,000 00
Salaries, rents, expenses, commissions, etc., due or accrued		32,941 70
Advance assessments		13,698 45
Reserve on certificates in fourth class	$116,843 06	
Reserve on certificates in plans A, B, and L, fifth class	3,117,328 73	
		3,234,171 79
Total liabilities		$3,438,811 94

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	71,779	$106,137,705 00
Benefit certificates written during the year	12,751	16,453,924 66
Totals	84,530	$122,591,629 66
Deduct terminated or decreased during the year	15,688	24,615,636 66
Total benefit certificates in force December 31, 1911	68,842	$97,975,993 00
Extended insurance	1,404	1,823,500 00

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	1,928	$2,949,500 00
Benefit certificates written during the year	378	580,294 00
Totals	2,306	$3,529,794 00
Deduct terminated or decreased during the year	354	581,925 00
Total benefit certificates in force December 31, 1911	1,952	$2,947,869 00

Received during the year from members in California: Mortuary, $62,839.51; xpense, $7,460.73; total, $70,300.24.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	109	$198,500 00
Claims (face value) incurred during the year	943	1,635,643 66
Totals	1,052	$1,834,143 66
Claims paid during the year	954	1,650,691 38
Balance	98	$183,452 28
aved by compromising or scaling down claims during the year	-----	21,452 28
Claims rejected during the year	3	4,000 00
Claims unpaid December 31, 1911	95	$158,000 00

California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	6	$7,500 00
Claims (face value) incurred during the year	25	40,000 00
Totals	31	$47,500 00
Claims paid during the year	29	43,173 52
Balance	2	$4,326 48
aved by compromising or scaling down claims during the year	-----	1,326 48
Claims unpaid December 31, 1911	2	$3,000 00

OPTION "J" SETTLEMENTS.

Total claims.	Number.	Amount.
Claims incurred during the year	92	$177,993 00
Claims paid during the year	92	18,692 90
Balance		$159,300 10
Saved by compromising or scaling down claims during the year		159,300 10

SUPREME LODGE
KNIGHTS AND LADIES OF HONOR.

GEO. D. TAIT, President. WALTER W. CONNEL, Secretary.

(Incorporated April, 1878. Commenced business September, 1877.)

Home Office: Indianapolis, Indiana.

Balance from previous year: Mortuary, $358,650.66; old age, $63,763.88; expense, $90,403.15	$512,817 69

INCOME.

Membership fees actually received—expense	$172 00
Assessments or premiums during first twelve months of membership, of which all or an extra percentage is used for expenses—mortuary, $25,558.80; expense, $25,558.80	51,117 60
All other assessments or premiums—mortuary, $1,556,687.50; expense, $97,093.35	1,653,780 85
Dues and per capita tax—expense	20,585 71
Other payments by members: Reissue of policies—expense	1,143 00
Total received from members	$1,726,799 16
Deduct payments returned to applicants and members	4 40
Net amount received from members	$1,726,794 76
Interest on bonds and dividends on stocks—mortuary	11,830 00
Interest from all other sources—mortuary, $2,598.87; old age, $1,273.45; expense, $303.61	4,175 93
Gross rents from association's property, including $2,500.00 for association's occupancy of its own buildings—expense	3,384 00
Sale of lodge supplies—expense	1,112 08
Premiums on surety bonds—expense	1,248 27
Advanced official journal—expense	736 46
Fines—expense	140 00
Postage stamps sold—expense	107 10
Library expenses refunded	19 60
Insurance Department fees—expense	20 00
First biennial encampment expenses	385 53
Field department expenses	1,625 10
Other sources—expense	15 40
Total income	$1,751,594 23

DISBURSEMENTS.

Death claims—mortuary	$1,555,570 69
Old age benefits—old age	1,200 00
Total benefits paid	$1,556,770 69
Commissions and expenses paid to deputies and organizers and lodges	28,498 25
Salaries of deputies and organizers—expense	74,097 01
Salaries of officers and trustees (3)—expense	13,000 00

Amount brought forward	$1,688,962 14
Salaries and fees paid to supreme medical examiners—expense	4,000 00
Traveling and other expenses of officers, trustees and committees—expense	1,002 81
Insurance Department fees—expense	354 25
Rent—expense	2,500 00
Advertising, printing and stationery—expense	3,954 61
Postage, express, telegraph and telephone—expense	4,445 68
Lodge supplies—expense	2,222 61
Official publication—expense	6,918 19
Expense of supreme lodge meeting—expense	4,718 11
Legal expense in litigating claims—expense	391 70
Other legal expenses—expense	7,547 02
Taxes, repairs and other expenses on real estate—expense	3,045 52
Loss on ledger assets—expense	498 40
All other disbursements—expense	17,127 22
Total disbursements	$1,747,688 26
Balance	$516,723 66

LEDGER ASSETS.

Book value of real estate	$63,151 13
Book value of bonds	326,923 05
Deposited in trust companies and banks on interest	116,606 48
Furniture and fixtures	6,843 00
Deposits to secure appeal bonds	3,200 00
Total ledger assets	$516,723 66

Non-Ledger Assets.

Interest and rents due and accrued	4,231 33
Market value of real estate over book value	19,098 87
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge	138,600 00
Supplies on hand	2,199 57
Gross assets	$680,853 43

Deduct Assets Not Admitted.

Book value of bonds and stocks over market value	$4,583 05	
Office furniture and fixtures	6,843 00	
Supplies on hand	2,199 57	
		13,625 62
Total admitted assets		$667,227 81

LIABILITIES.

Death claims adjusted not yet due (20)	$20,166 66	
Death claims resisted (6)	4,833 34	
Death claims reported but not yet adjusted (125)	125,994 08	
Total death claims		$150,994 08
Salaries, rents, expenses, commissions, etc., due or accrued		847 88
Total liabilities		$151,841 96

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	73,077	$70,998,250 00
Benefit certificates written during the year	7,542	4,654,250 00
Totals	80,619	$75,652,500 00
Deduct terminated or decreased during the year	9,342	7,409,750 00
Total benefit certificates in force December 31, 1911	71,277	$68,242,750 00

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	553	$718,500 00
Benefit certificates written during the year	50	23,750 00
Totals	603	$742,250 00
Deduct terminated or decreased during the year	21	23,250 00
Total benefit certificates in force December 31, 1911	582	$719,000 00

Received during the year from members in California: Mortuary, $21,195.70; expense, $1,047.05: Total, $22,242.75.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	204	$214,874 98
Claims (face value) incurred during the year	1,377	1,502,166 57
Totals	1,581	$1,717,041 55
Claims paid during the year	1,418	1,555,570 69
Balance	163	$161,470 86
Saved by compromising or scaling down claims during the year	----	3,726 79
Claims rejected during the year	12	6,749 99
Claims unpaid December 31, 1911	151	$150,994 08

California claims.	Number.	Amount.
Claims unpaid December 31, 1910	1	$3,000 00
Claims (face value) incurred during the year	13	17,500 00
Totals	14	$20,500 00
Claims paid during the year	13	19,500 00
Claims unpaid December 31, 1911	1	$1,000 00

EXHIBIT OF OLD AGE AND OTHER CLAIMS.

Total claims.	Number.	Amount.
Claims incurred during the year	5	$1,200 00
Claims paid during the year	5	$1,200 00

NATIONAL COUNCIL
KNIGHTS AND LADIES OF SECURITY.

W. B. KIRKPATRICK, President. J. V. ABRAHAMS, Secretary.

(Incorporated February 22, 1892. Commenced business February 22, 1982.)

Home Office: 701 Kansas avenue, Topeka, Kansas.

Balance from previous year: Mortuary, $238,622.42; reserve, $1,386,405.65; expense, $66,881.43	$1,691,909 50

INCOME.

Assessments or premiums during first six months of membership of which all or an extra percentage is used for expenses, section 109, our laws—expense	$148,366 77
All other assessments or premiums—mortuary	1,064,786 60
Dues and per capita tax—expense	182,741 93
Reserve fund	178,939 57
Total received from members	$1,574,834 87

Total income received from members	$1,574,834 87
Interest on mortgage loans—reserve	40,808 42
Interest on bonds and dividends on stocks—reserve	20,641 97
Interest from all other sources—reserve	6,823 17
Gross rents from association's property, including $2,400.00 for association's occupancy of its own buildings—reserve	27,053 62
Sale of lodge supplies—expense	2,413 86
Certificate fees—expense	1,385 55
Returned to expense account—expense	34 75
Commissions on loans—expense	1,020 07
Returned on death claim No. 5289—expense	1,908 00
Returned on assessments paid—expense	15 00
Transfer from general to reserve fund—reserve	8,636 01
Total income	$1,685,575 29

DISBURSEMENTS.

Death claims—mortuary	$1,161,496 62
Permanent disability claims—mortuary	7,456 25
Old age benefits	22,396 06
Settlement of contested claims—mortuary	8,102 03
Total benefits paid	$1,199,450 96
Commissions and fees paid to deputies and organizers—expense	228,551 49
Salaries of officers and trustees (3)—expense	13,200 00
Salaries and other compensation of committees—expense	3,306 88
Salaries of office employees (39)—expense	23,992 42
Salaries and fees paid to supreme medical examiners—expense	6,000 00
Traveling and other expenses of officers, trustees and committees—expense	1,275 12
Insurance Department fees—expense	485 00
Rent—expense	2,400 00
Advertising, printing and stationery—expense	21,944 49
Postage, express, telegraph and telephone—expense	8,417 03
Official publication—expense	14,967 95
Legal expense in litigating claims—expense	1,130 02
Other legal expenses—expense	3,175 87
Furniture and fixtures—expense	434 20
Taxes, repairs and other expenses on real estate—reserve	11,725 11
All other disbursements—expense	14,277 81
Total disbursements	$1,554,734 35
Balance	$1,822,750 44

LEDGER ASSETS.

Book value of real estate	$302,525 18
Mortgage loans on real estate	749,758 38
Book value of bonds	503,285 40
Deposited in banks (not on interest)	267,181 48
Total ledger assets	$1,822,750 44

Non-Ledger Assets.

Interest and rents due and accrued		$11,487 09
Interest due and accrued, bonds		9,805 27
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge		93,322 66
Reserve fund	$12,977 00	
Expense fund	26,682 42	
Total		39,659 42
Gross assets		$1,977,024 88

LIABILITIES.

Death claims due and unpaid (26)	$33,040 30	
Death claims reported but not yet adjusted (73)	81,121 43	
Total death claims		$114,161 73
Permanent disability claims due and unpaid (1)		500 00
Old age and other benefits due and unpaid (15)		1,600 00
Total liabilities		$116,261 73

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	100,383	$120,986,000 00
Benefit certificates written during the year	35,795	39,973,000 00
Totals	136,178	$160,959,000 00
Deduct terminated or decreased during the year	19,692	20,508,000 00
Total benefit certificates in force December 31, 1911	116,486	$139,451,000 00

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	2,197	$2,507,500 00
Benefit certificates written during the year	937	1,166,500 00
Totals	3,134	$3,674,000 00
Deduct terminated or decreased during the year	514	622,200 00
Total benefit certificates in force December 31, 1911	2,620	$3,052,000 00

Received during the year from members in California: Mortuary, $21,791.53; reserve, $2,638.57; expense, $8,004.25: Total, $32,434.35.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	97	$123,000 00
Claims (face value) incurred during the year	960	1,219,500 00
Totals	1,057	$1,342,500 00
Claims paid during the year	958	1,161,496 62
Balance		$181,003 38
Saved by compromising or scaling down claims during the year		57,003 38
Claims rejected during the year	26	34,500 00
Claims unpaid December 31, 1911	99	$124,000 00

California claims.	Number.	Amount.
Claims (face value) incurred during the year	17	$21,000 00
Claims paid during the year	16	19,598 16
Balance		$1,401 84
Saved by compromising or scaling down claims during the year		401 84

EXHIBIT OF PERMANENT DISABILITY CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	1	$500 00
Claims incurred during the year	19	7,456 25
Totals	20	$7,956 25
Claims paid during the year	19	7,456 25
Balance	1	$500 00
Claims rejected during the year	1	2,000 00
Claims unpaid December 31, 1911	1	500 00

California claims.	Number.	Amount
Claims incurred during the year	1	$500 00

EXHIBIT OF OLD AGE AND OTHER CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	7	$1,000 00
Claims incurred during the year	184	22,996 06
Totals	191	$23,996 06
Claims paid during the year	176	22,396 06
Claims unpaid December 31, 1911	15	$1,600 00

California claims.	Number.	Amount.
Claims incurred during the year	2	$300 00
Claims paid during the year	2	300 00

KNIGHTS OF THE MODERN MACCABEES.

George S. Lovelace, President. A. M. Slay, Secretary.

(Incorporated June 11, 1881. Commenced business, June 11, 1881.)

Home Office: Port Huron, Michigan.

Balance from previous year: Building, $84,561.03; mortuary, $278,002.61; reserve, $78,522.35; disability, $1,974.65; sick and accident, $18,109.89; health and accident, $493.25; expense, $3,873.30	$465,537 08

INCOME.

Membership fees actually received—expense	$7,332 07
Assessments or premiums during first twelve month of membership of which all or an extra percentage is used for expenses—mortuary, $8,282.25; sick and accident, $11,358.50	19,640 75
All other assessments or premiums—mortuary, $1,394,160.96; sick and accident, $21,967.35; health and accident, $7,082.15	1,423,210 46
Dues and per capita tax—expense	145,584 58
Total received from members	$1,595,767 86
Deduct payments returned to applicants and members—mortuary	1,074 15
Net amount received from members	$1,594,693 71
Interest on bonds—reserve, $4,939.00; sick and accident, $290.00	5,229 00
Interest from all other sources—reserve, $74.66; disability, $8,712.72; sick and accident, $160.58; health and accident, $32.10; expense, $147.93	9,127 99
Gross rents for association's property, including $2,000.00 for association's occupancy of its own buildings—expense	3,188 00
Sale of lodge supplies—expense	14,215 43
Borrowed money—expense	117,500 00
Total income	$1,743,954 13

DISBURSEMENTS.

Death claims—mortuary	$1,243,841 90
Permanent disability claims—disability	67,499 21
Sick and accident claims—sick and accident	24,480 00
Old age benefits—disability	111,523 14
Health and accident	4,669 63
Total benefits paid	$1,452,013 88
Commissions and fees and salaries paid to deputies and organizers—expense	63,535 26
Expense of deputies and organizers—expense	27,141 96
Salaries of officers and trustees (14)—expense	18,290 58

Salaries of office employees (104)—expense	$21,935 69
Traveling and other expenses of officers, trustees and committees—expense	3,602 84
Insurance Department fees—expense	455 69
Rent, including $2,000.00 for association's occupancy of its own buildings—expense	2,122 50
Advertising, printing and stationery—expense	5,248 28
Postage, express, telegraph and telephone—expense	9,532 49
Lodge supplies, $4,775.46; office supplies, $1,508.23—expense	6,283 69
Official publication—expense	10,323 42
Expense of supreme lodge meeting—expense	14,009 73
Legal expense in litigating claims—expense	200 44
Other legal expenses—expense	1,092 59
Furniture and fixtures—expense	326 10
Taxes, repairs and other expenses on real estate—expense	1,145 82
Loss on sale or maturity of ledger assets—reserve	2 29
All other disbursements	118,549 87
Total disbursements	$1,755,813 12
Balance	$453,678 09

LEDGER ASSETS.

Book value of real estate	$84,561 03
Book value of bonds	115,971 54
Deposited in trust companies and banks on interest	253,145 52
Cash in association's office	68 31
Total ledger assets	$453,746 40

Non-Ledger Assets.

Interest and rents due and accrued	1,679 13
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge	25,290 06
Gross assets	$480,715 59

Deduct Assets Not Admitted.

Book value of real estate over market value, 5 per cent depreciation for 1907, 1908, 1909, 1910, 1911	$19,129 31	
Book value of bonds and stocks over market value	3,408 54	
Total		22,537 85
Total admitted assets		$458,177 74

LIABILITIES.

Death claims resisted (3)	$4,000 00	
Death claims reported but not yet adjusted (86)	106,850 00	
Total death claims (89)		$110,850 00
Old age and other benefits due and unpaid		8,400 00
Total unpaid claims		$119,250 00
Salaries, rents, expenses, commissions, etc., due or accrued		10,430 44
Borrowed money		67,500 00
Advance assessments		52 00
John F. Hogan	$1,679 53	
Commissions due for transferred members	19,000 00	
Total		20,679 53
Total liabilities		$217,911 97

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	101,456	$125,012,000 00
Benefit certificates written during the year	5,524	5,574,000 00
Totals	106,980	$130,586,750 00
Deduct terminated or decreased during the year	33,671	40,560,750 00
Total benefit certificates in force December 31, 1911	73,309	$90,025,250 00

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	146	$179,000 00
Benefit certificates written during the year	4	4,500 00
Totals	150	$183,500 00
Deduct terminated or decreased during the year	7	11,000 00
Total benefit certificates in force December 31, 1911	143	$172,500 00

Received during the year from members in California: Mortuary, $2,203.95; expense, $212.00; Total, $2,415.95.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement and 5 transferred from sick and accident	92	$112,875 00
Claims (face value) incurred during the year, 17 by letter and 992 regular	1,009	1,272,246 67
Totals	1,101	$1,385,121 67
Claims paid during the year	1,008	1,264,663 26
Balance	93	$120,458 41
Saved by compromising or scaling down claims during the year	------	6,108 41
Claims rejected during the year	4	3,500 00
Claims unpaid December 31, 1911	89	$110,850 00

California claims.	Number.	Amount.
Claims incurred during the year	2	$3,500 00
Claims paid during the year	2	3,500 00

EXHIBIT OF PERMANENT DISABILITY CLAIMS.

Total claims.	Number.	Amount.
Claims on list December 31, 1910, as per last statement, and 2 transferred from sick and accident	600	$530,711 79
Claims incurred during the year	203	263,849 57
Totals	803	$794,561 36
Claims paid during the year	132	205,054 21
Balance	671	$589,507 15
Held till death	------	185,386 91
Claims on list December 31, 1911, to be paid in future installments	671	$404,120 24

California claims.	Number.	Amount.
Total claims	1	$900 00
Claims paid during the year	------	50 00
Balance	1	$850 00
Held till death	------	200 00
Claims unpaid December 31, 1911	1	$650 00

EXHIBIT OF HEALTH AND ACCIDENT CLAIMS.

Total claims.	Number.	Amount.
Claims incurred during the year	148	$4,145 60
Claims paid during the year	138	3,673 77
Claims unpaid December 31, 1911	10	$471 83

EXHIBIT OF OLD AGE AND OTHER CLAIMS.

Total claims.	Number.	Amount.
Claims on list December 31, 1910, as per last statement	575	$584,765 53
Claims incurred during the year	338	487,488 08
Totals	913	$1,072,253 61
Claims paid during the year	56	150,381 47
Balance	857	$921,872 14
Held till death	------	245,991 09
Claims on list December 31, 1911, to be paid in future installments	857	$675,881 05

KNIGHTS OF THE MACCABEES OF THE WORLD.

D. P. Markey, President. L. E. Sisler, Secretary.

(Incorporated September 11, 1885, under Chap. 18, Laws of Mich., 1869. Reincorporated August 31, 1894; November 7, 1895; August 18, 1899; July 22, 1901; July 26, 1904; under Act 119, Public Acts of Mich., 1893. Commenced business, 1883.)

Home Office: 1021 Woodward avenue, Detroit, Michigan.

Balance from previous year: Mortuary, $415,808.82; reserve, $9,172,422.21; relief No. 1, $108,180.32; relief No. 2, $129.31; sick and accident, $27,953.83; expense, $87,093.67; convention, $17,500.00	$9,829,088 16

INCOME.

Assessments or premiums during first twelve months of membership of which all or an extra percentage is used for expenses—mortuary, $91,320.00; relief No. 1, $2,524.00; relief No. 2, $12,622.00; sick and accident, $6,273.00; expense, $172,806.40	$285,545 40
All other assessments or premiums—mortuary, $3,820,804.52; relief No. 1, $29,990.10; relief No. 2, $149,948.50; sick and accident, $82,239.14; expense, $20,560.19	4,103,542 45
Dues and per capita tax—expense	340,944 74
Total received from members	$4,730,032 59
Deduct payments returned to applicants and members—mortuary, $3,714.39; sick and accident, $11.60	3,725 99
Net amount received from members	$4,726,306 60
Interest on bonds and dividends on stocks—mortuary, $456,924.37; relief No. 1, $1,852.40; sick and accident, $10,151.93	468,928 70
Interest from all other sources—mortuary, $15,631.73; relief No. 1, $3,515.66; relief No. 2, $95.44; sick and accident, $900.49; expense, $601.06; convention, $436.09	21,180 47
Gross rents from association's own property, including $3,000.00 for association's occupancy of its own buildings—mortuary, $3,000.00;	

Amount brought forward	$5,231,569 58
Convention fund—expense	1,059 50
Legal claims—1908, $15.00; 1909, $1.00	16 00
Thompson deficit—mortuary	15,000 00
Gross profits on sale of bonds, per schedule D—reserve	3,662 19
Gross increase by adjustment in book value of bonds, per schedule D—reserve	2,145 65
Total income	$5,253,453 02

DISBURSEMENTS.

Death claims—mortuary	$3,390,358 19
Permanent disability claims—mortuary	211,686 07
Sick and accident claims	77,591 00
Other benefits—relief No. 1	9,415 83
Total benefits paid	$3,689,051 09
Commissions and fees paid to deputies and organizers—relief No. 2, $69,522.59; expense, $108,646.23	178,168 82
Salaries of deputies and organizers—relief No. 2, $86,852.47; expense, $203,736.15	290,588 62
Salaries of officers and trustees (14)—expense	23,971 00
Salaries of home office employees (69)—expense	61,935 62
Salaries and fees paid to supreme medical examiners—expense	8,573 13
Traveling and other expenses of officers, trustees and committees—expense	3,625 14
Insurance Department fees—expense	1,568 57
Rent, including $3,000.00 for association's occupancy of its own buildings—expense	3,630 00
Advertising, printing and stationery—expense	16,126 79
Postage, express, telegraph and telephone—expense	12,492 86
Lodge supplies—expense	12,282 41
Official publication—expense	42,949 37
Expense of supreme lodge meeting—expense, $408.80; convention, $40,067.36	40,476 16
Decrease by adjustment in book value of bond, per schedule D—reserve	22,838 63
Legal expense in litigating claims—relief No. 2, $4,619.49; expense, $4,345.52	8,965 01
Other legal expenses—relief No. 2, $766.12; expense, $9,828.77	10,594 89
Furniture and fixtures—expense	1,906 81
Taxes, repairs and other expenses on real estate—expense	1,484 66
Accrued interest paid on bonds—mortuary, $14,290.90; relief No. 1, $901.10; sick and accident, $438.99	15,630 99
Exchange on bond collections—mortuary, $134.44; relief No. 1, $0.50; sick and accident, $1.77	136 71
All other disbursements—expense	4,522 33
Total disbursements	$4,451,519 61
Balance	$10,631,021 57

LEDGER ASSETS.

Book value of real estate	$125,000 00
Book value of bonds, per schedule D	10,065,776 69
Deposited in trust companies and banks on interest	437,153 75
Cash in association's office, $1,225.00; deposited in banks not on interest, $1,866.13	3,091 13
Total ledger assets	$10,631,021 57

Non-Ledger Assets.

Rents due	$125 00
Interest due, $21,874.24; accrued, $176,569.28, on bonds	198,443 52
Market value of real estate over book value	59,294 87
Interest due and accrued on other assets, banks	2,110 05
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge	349,000 00
Furniture and fixtures	16,701 46
Gross assets	$11,256,696 47

Deduct Assets Not Admitted.

Furniture and fixtures	16,701 46
Total admitted assets	$11,239,995 01

LIABILITIES.

Death claims due and unpaid (163)	$197,423 41
Death claims resisted (13)	27,500 00
Death claims reported but not yet adjusted (77)	96,000 00
Present value of deferred death and disability claims payable in installments	604,044 05
Total death claims	$924,967 46
Sick and accident claims due and unpaid (60)	1,046 00
Total unpaid claims	$926,013 46
Salaries, rents, expenses, commissions, etc., due or accrued	28,046 86
Total liabilities	$954,060 32

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	270,401	$333,525,207 00
Benefit certificates written during the year	32,327	33,150,500 00
Totals	302,728	$366,675,707 00
Deduct terminated or decreased during the year	30,944	33,010,124 79
Total benefit certificates in force December 31, 1911	271,784	$333,665,582 21

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	8,236	$10,922,450 00
Benefit certificates written during the year	576	645,000 00
Totals	8,812	$11,567,450 00
Deduct terminated or decreased during the year	703	626,450 00
Total benefit certificates in force December 31, 1911	8,109	$10,941,000 00

Received during the year from members in California: Mortuary, $152,792.83; expense, $10,413.98: Total, $163,206.81.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	228	$307,843 70
Claims (face value) incurred during the year	2,613	3,508,889 40
Totals	2,841	$3,816,733 10
Claims paid during the year	2,584	3,390,358 19
Balance	257	$426,374 91
Saved by compromising or scaling down claims during the year	-----	100,951 50

California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	11	$13,000 00
Claims (face value) incurred during the year	84	111,248 00
Totals	95	$124,248 00
Claims paid during the year	87	111,921 81
Balance	8	$12,326 19
Saved by compromising or scaling down claims during the year	-----	3,026 19
Claims unpaid December 31, 1911	8	$9,300 00

EXHIBIT OF PERMANENT DISABILITY CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	955	$974,342 97
Claims incurred during the year	370	590,225 55
Totals	1,325	$1,564,568 52
Claims paid during the year	268	211,686 07
Balance	1,057	$1,352,882 45
Saved by compromising or scaling down claims during the year	-----	65,497 44
*Claims rejected during the year	-----	168,784 90
*Claims unpaid December 31, 1911	1,057	$1,118,600 11

California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	15	$18,125 00
Claims incurred during the year	10	17,378 86
Totals	25	$35,503 86
Claims paid during the year	3	5,383 21
Balance	22	$30,120 65
Saved by compromising or scaling down claims during the year	-----	2,595 20
Claims unpaid December 31, 1911	22	$27,525 45

EXHIBIT OF SICK AND ACCIDENT CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	29	$591 00
Claims incurred during the year	3,895	78,046 00
Totals	3,924	$78,637 00
Claims paid during the year	3,864	77,591 00
Claims unpaid December 31, 1911	60	$1,046 00

California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	1	$50 00
Claims incurred during the year	152	3,579 00
Claims paid during the year	153	3,629 00

LADIES OF THE MODERN MACCABEES.

Mrs. Frances E. Burns, President. Miss Emma E. Bower, Secretary.

(Incorporated December 10, 1891. Commenced business as life benefit order May 21, 1890.)

Home Office: Modern Maccabee Temple, Port Huron, Michigan.

Balance from previous year: Mortuary, $125,354.56; surplus, $24,063.11; old age, $20,679.95; emergency, $301,799.43; Upper Peninsula bed, $5,219.76; expense, $63,148.96	$540,265 27

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*Balance unpaid. Total face value of L. B. certificates held by disability members. Amount included in exhibit of certificates, schedule 8, page 7.

INCOME.

Membership fees actually received—expense	$512 00
Assessments or premiums during first twelve months of membership of which all or an extra percentage is used for expenses—mortuary	14.786 89
All other assessments or premiums—mortuary	5.582,811 17
Dues and per capita tax—expense	49.095 00
Medical examiners' fees actually received—expense	538 50
Withdrawal card fees—expense	181 50
Total received from members	$623.395 06
Deduct payments returned to applicants and members—mortuary	843 57
Net amount received from members—mortuary	$622.551 49
Interest on bonds and dividends on stocks—mortuary, $2,292.50; surplus, $9,188.75; emergency, $3,806.40	15.287 65
Interest from all other sources: Bank interest—mortuary, $4,901.24; surplus, $1,463.85; old age, $492.80; emergency, $150.51; Upper Peninsula bed, $219.16; expense, $776.36	8.004 02
Sale of lodge supplies—expense	2.309 50
Contribution to bed fund	5 00
Miscellaneous—expense	5.269 31
Total income	$653.421 97

DISBURSEMENTS.

Death claims—mortuary	$347.343 85
Permanent disability claims—mortuary	17.794 14
Old age benefits—old age	62,792 91
Other benefits: Maternity—mortuary	50 00
Total benefits paid	$427.980 90
Commissions and fees paid to deputies and organizers—expense	827 37
Expenses of deputies—expense	7.664 93
Salaries of deputies and organizers—expense	22,398 81
Salaries of officers and trustees (8)—expense	8.839 96
Salaries and other compensation of committees—expense	2.353 96
Salaries of office employees—expense	25.696 31
Other compensation of office employees (Christmas gifts)—expense	155 87
Salaries paid to supreme medical examiners—expense	2.500 00
Fees paid to subordinate medical examiners—expense	162 75
Traveling and other expenses of officers, trustees and committees—expense	4.863 75
Insurance Department fees—expense	337 92
Rent—expense	1.433 50
Advertising, printing and stationery—expense	4.904 90
Postage, express, telegraph and telephone—expense	6.283 96
Lodge supplies—expense	4.902 49
Official publication—expense	8.856 10
Legal and other expense in litigating claims—mortuary	1.445 09
Other legal expenses—expense	2.378 93
Furniture and fixtures and Great Hive supplies—expense	1.679 34
Bonds per schedule D—mortuary, $461.30; reserve, $2.014.85	2.476 15
Accrued interest on bonds purchased—mortuary, $307.88; reserve, $917.68	1225 56
All other disbursements—expense	15,704 82
Total disbursements	$550.073 37
Balance	$638.613 87

LEDGER ASSETS.

Book value of bonds	$399.028 00
Deposited in trust companies and banks on interest	239.585 87

Amount brought forward		$638,613 87

Non-Ledger Assets.

Interest due and accrued: Due, $2,907.75; accrued, $3,689.26		6,597 01
Market value of bonds and stocks over book value		7,975 00
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge		46,165 70
Special funds in hands of Great Commander	$700 00	
Special funds in hands of Great Record Keeper	4,000 00	
Cash account in hands of Great Record Keeper	665 84	
		5,365 84
Gross assets		$704,717 42

LIABILITIES.

Death claims due and unpaid (1)	$416 66	
Death claims resisted (10)	8,318 82	
Death claims reported but not yet adjusted (53)	39,075 00	
Total death claims (64)		$47,810 48
Permanent disability claims due and unpaid (18)		847 16
Old age and other benefits due and unpaid (22)		2,156 52
Total unpaid claims		$50,814 16
Salaries, rents, expenses, commissions, etc., due or accrued		7,333 56
Total liabilities		$58,147 72

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	43,306	$347,323 25
Benefit certificates written during the year	1,696	12,297 50
Totals	45,002	$359,620 75
Deduct terminated or decreased during the year	3,280	32,885 75
Total benefit certificates in force December 31, 1911	41,722	$326,735 00

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	79	$65,750 00
Benefit certificates written during the year	5	3,250 00
Benefit certificates received by transfer during the year	2	2,000 00
Totals	86	$71,000 00
Deduct terminated or decreased during the year	30	26,750 00
Total benefit certificates in force December 31, 1911	56	$44,250 00

Received during the year from members in California: Mortuary, $1,171.28; expense, $102.50; Total, $1,273.78.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	73	$59,840 94
Claims (face value) incurred during the year	430	347,875 00
Totals	503	$407,715 94
Claims paid during the year	438	347,343 85
Balance	65	$60,372 09
Saved by compromising or scaling down claims during the year	----	4,677 12
Claims dropped during the year	1	250 00
Claims unpaid December 31, 1911	64	$47,810 48

California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	1	$1,000 00
Claims paid during the year	1	1,000 00

EXHIBIT OF PERMANENT DISABILITY CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	25	$1,172 16
Claims incurred during the year	406	18,609 96
Totals	431	$19,782 12
Claims paid during the year	389	17,794 14
Balance	42	$1,987 98
Transferred to death claims (3-150)	6	300 00
Transferred to old age claims (1-50)	18	840 82
Transferred to suspension claims (2-100)	18	847 16

EXHIBIT OF MATERNITY CLAIMS.

Total claims.	Number.	Amount.
Claims incurred during the year	1	$50 00
Claims paid during the year	1	50 00

EXHIBIT OF OLD AGE AND OTHER CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	1	$50 00
Claims incurred during the year	216	64,899 43
Totals	217	$64,949 43
Claims paid during the year	195	62,792 91
Claims unpaid December 31, 1911	22	$2,156 52
California claims.	Number.	Amount.
Claims incurred during the year	2	$100 00
Claims paid during the year	2	100 00

LADIES OF THE MACCABEES OF THE WORLD.

Miss Bina M. West, President. Miss Frances D. Partridge, Secretary.

(Incorporated April 6, 1897. Commenced business October 1, 1892.)

Home Office: World's Maccabee Temple, Port Huron, Michigan.

Balance from previous year: Mortuary, $53,883.34; reserve, $4,658,539.67; expense, $91,606.14	$4,804,029 15

INCOME.

Membership and change fees actually received—expense	$18,987 05
Assessments on premiums during first twelve months of membership of which all or an extra percentage is used for expenses—mortuary, $91,405.94; expense, $107,094.18	198,500 12
All other assessments or premiums—mortuary, $1,284,551.43; expense, $33,939.04	1,318,490 47
Dues and per capita tax—expense	179,496 02
Medical examiners' fees actually received—expense	5,017 35
Total received from members	$1,720,491 01
Deduct payments returned to applicants and members—mortuary, $616.83; expense, $1,228.65	1,845 48
Net amount received from members	$1,718,645 53
Interest on bonds and dividends on stocks—reserve, $223,266.25; expense, $1,770.00	225,036 25
Interest from all other sources—mortuary, $2,636.09; reserve, $1,052.27; expense, $1,500.65	5,189 01

Amount brought forward	$1,952,500 01
Bonds, subordinate hive officers—expense	118 67
Defunct hive funds—expense	11 33
Hospital and home fund—expense	226 01
Relief fund—expense	8 00
Gross profit on sale or maturity of ledger assets: Bonds per schedule D—reserve	380 65
Gross increase by adjustment in book value of ledger assets: Bonds per schedule D—reserve	539 80
Total income	$1,953,875 47

DISBURSEMENTS.

Death claims—mortuary	$821,125 71
Permanent disability claims—mortuary	14,055 97
Total benefits paid	$835,181 68
Commissions, prize and fees paid to deputies and organizers—expense	45,851 70
Salaries and expenses of deputies and organizers—expense	94,492 71
Salaries of managers or agents not deputies or organizers, transferred to great hives for field work—expense	44,971 06
Salaries of officers and trustees (9)—expense	13,762 50
Salaries of office employees (68)—expense	38,318 26
Salaries and fees paid to subordinate medical examiners—expense	1,440 75
Traveling and other expenses of officers, trustees and committees—expense	4,779 25
Insurance Department fees—expense	1,086 22
Rent—expense	5,614 38
Advertising, printing and stationery—expense	16,991 11
Postage, express, telegraph and telephone—expense	9,677 48
Official publication—expense	22,016 98
Gross loss on sale or maturity of ledger assets: Bonds per schedule D—reserve	30 00
Gross decrease by adjustment and book value of ledger assets: Bonds per schedule D	18,860 87
Expense of supreme lodge meeting—expense	30,347 02
Legal expense in litigating claims—expense	19,169 94
Other legal expenses—expense	510 00
Furniture and fixtures—expense	628 15
Taxes, repairs and other expenses on real estate—expense	2,215 30
All other disbursements—expense	15,051 94
Total disbursments	$1,220,997 30
Balance	$5,536,907 32

LEDGER ASSETS.

Book value of real estate	$88,000 00
Book value of bonds and stocks	5,172,735 88
Deposited in trust companies and banks on interest	257,587 53
Cash in association's office	18,583 91
Total ledger assets	$5,536,907 32

Non-Ledger Assets.

Interest and rents due and accrued		51,621 15
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge		125,000 00
Per capita tax on beneficiary members now in hands of record keepers	$14,000 00	
Per capita tax on social members now in hands of record keepers	6,000 00	
Furniture, fixtures and safes	11,437 90	
Supplies, printed matter and stationery	12,240 21	
Total		43,678 11
Gross assets		$5,757,206 58

Amount brought forward		$5,757,206 58

Deduct Assets Not Admitted.

Furniture, fixtures and safes	$11,437 90	
Supplies, printed matter and stationery	12,240 21	
Total		23,678 11
Total admitted assets		$5,733,528 47

LIABILITIES.

Death claims resisted (2)	$2,500 00	
Death claims reported but not yet adjusted (103)	89,233 34	
Present value of deferred death and disability claims payable in installments—disability claims (84), one tenth annually	19,766 95	
Total death claims		$111,500 29
Salaries, rents, expenses, commissions, etc., due or accrued		35,012 06
Payments to be returned		183 92
Total liabilities		$146,696 28

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	135,359	$104,280,886 21
Benefit certificates written during the year	17,277	12,895,500 00
Totals	152,636	$117,176,386 21
Deduct terminated or decreased during the year	10,491	7,480,331 53
Total benefit certificates in force December 31, 1911	142,145	$109,696,054 68

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	3,772	$3,112,415 74
Benefit certificates written during the year	458	368,000 00
Totals	4,230	$3,480,415 74
Deduct terminated or decreased during the year	227	168,595 45
Total benefit certificates in force December 31, 1911	4,003	$3,311,820 29

Received during the year from members in California: Mortuary, $28,815.58; reserve, $16,456.34; expense, $10,511.03: Total, $55,782.95.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	104	$98,883 34
Claims (face value) incurred during the year—reported 1,012, $836,554.87; appealed, etc., $400.10	1,012	836,954 97
Totals	1,116	$935,838 31
Claims paid during the year	1,007	821,125 71
Balance	109	$114,712 60
Saved by compromising or scaling down claims during the year	4	2,500 00
Claims unpaid December 31, 1911	105	$91,733 34

California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	5	$6,500 00
Claims (face value) incurred during the year	22	20,000 00
Totals	27	$26,500 00
Claims paid during the year	24	23,366 67
Balance	3	$3,133 33

Saved by compromising or scaling down claims during the

EXHIBIT OF PERMANENT DISABILITY CLAIMS.

Total claims.	Number.	Amount.
Claims incurred during the year	74	$14,055 97
Claims paid during the year	74	14,055 97
California claims.	**Number.**	**Amount.**
Claims incurred during the year	2	$300 00
Claims paid during the year	2	300 00

LINCOLN ANNUITY UNION.

Wm. C. Hassler, President. A. M. Talt, Secretary.

(Incorporated January 2, 1904. Commenced business January 20, 1904.)

Home Office: 323 Geary street, San Francisco, California.

Balance from previous year: All benefits	$1,933 22
INCOME.	
All assessments or premiums—all benefits, $10,820.46; expense, $7,213.63	$18,034 09
Dues and per capita tax—expense	404 08
Medical examiner's fees actually received—expense	18 25
Other payments by members: Advance senate dues, certificate fees and assembly dues, members at large—expense	429 66
Total received from members	$18,886 08
Deduct payments returned to applicants and members—all benefits, $36.54; expense, $24.36	60 90
Net amount received from members	$18,825 18
Sale of lodge supplies—expense	151 85
Benefits returned on certificate of J. S. Cronk, reduced from A-4 to A-3—all benefits	117 50
Total income	$19,094 53
DISBURSEMENTS.	
Death claims, funeral benefits—all benefits	$325 00
Sick and accident claims—all benefits	3,873 75
Deferred installments—all benefits	6,150 00
Total benefits paid	$10,348 75
Salaries of deputies and organizers—expense	1,672 73
Salaries of managers or agents not deputies or organizers—expense	2,107 35
Salaries of officers and trustees (6)—expense	2,610 76
Salaries and other compensation of committees—expense	75 85
Salaries of office employees (1)—expense	538 50
nsurance Department fees—expense	91 00
Rent—expense	450 00
Printing and stationery—expense	258 85
Postage, express, telegraph and telephone—expense	281 65
Lodge supplies—expense	197 40
Official publication—expense	507 49
Legal expenses—expense	4 48
Furniture and fixtures—expense	9 50
All other disbursements—expense	52 43
Total disbursements	$19,206 74
Balance	$1,821 01

LEDGER ASSETS.

Deposited in trust companies and banks on interest	$791 63
Deposited in banks not on interest	1,029 38
Total ledger assets	$1,821 01

Non-Ledger Assets.

Assessments actually collected by subordinate lodges not yet turned over to supreme lodge, about	1,200 00
Gross assets	$3,021 01

LIABILITIES.

Death claims reported but not yet adjusted (1)	$1,250 00	
Present value of deferred death and disability claims payable in installments	41,261 97	
Total death claims		$42,511 97
Sick and accident claims reported but not yet adjusted (1)		15 00
Total unpaid claims		$42,526 97
Salaries, rents, expenses, commissions, etc., due or accrued		38 52
Borrowed money		104 19
Advance assessments		33 25
Due benefit fund by general fund		15,576 22
Total liabilities		$58,279 15

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	1,249	$2,104,737 50
Benefit certificates written during the year	357	553,725 00
Totals	1,606	$2,658,462 50
Deduct terminated or decreased during the year	641	1,036,600 00
Total benefit certificates in force December 31, 1911	965	$1,621,862 50

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	214	$312,500 00
Benefit certificates written during the year	6	5,375 00
Totals	220	$317,875 00
Deduct terminated or decreased during the year	87	144,037 50
Total benefit certificates in force December 31, 1911	133	$173,837 50

Received during the year from members in California on present membership: All benefits, $1,283.83; expense, $1,095.29: Total, $1,379.12.

EXHIBIT OF FUNERAL CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	1	$50 00
Claims (face value) incurred during the year	7	425 00
Totals	8	$475 00
Claims paid during the year	6	325 00
Balance	2	$150 00
Saved by compromising or scaling down claims during the year	----	25 00
Claims rejected during the year	1	75 00
Claims unpaid December 31, 1911	1	$50 00

California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	1	$50 00
Claims (face value) incurred during the year	3	200 00
Totals	4	$250 00
Claims paid during the year	3	175 00
Balance	1	$75 00
Saved by compromising or scaling down claims during the year	----	25 00
Claims unpaid December 31, 1911	1	$50 00

EXHIBIT OF SICK, ACCIDENT AND CONFINEMENT CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	1	$12 50
Claims incurred during the year	152	4,823 75
Totals	153	$4,836 25
Claims paid during the year	135	3,873 75
Balance	18	$962 50
Saved by compromising or scaling down claims during the year	----	372 50
Claims rejected during the year	17	575 00
Claims unpaid December 31, 1911	1	$15 00

California claims.	Number.	Amount.
Claims incurred during the year	25	$832 50
Claims paid during the year	22	670 00
Balance	3	$162 50
Saved by compromising or scaling down claims during the year	----	25 00
Claims rejected during the year	3	137 50

EXHIBIT OF INSTALLMENT CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	1	$1,200 00
Claims incurred during the year	126	8,550 00
Totals	127	$9,750 00
Claims paid during the year	125	6,150 00
Claims rejected during the year	1	2,400 00
Claims unpaid December 31, 1911	1	$1,200 00

California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	1	$1,200 00
Claims incurred during the year	30	1,500 00
Totals	31	$2,700 00
Claims paid during the year	30	1,500 00
Claims unpaid December 31, 1911	1	$1,200 00

LOYAL AMERICANS OF THE REPUBLIC.

E. J. DUNN, President. H. D. COWAN, Secretary.

(Incorporated November 7, 1896. Commenced business November 7, 1896.)

Home Office: 1104 Karpen Building, Chicago, Illinois.

Balance from previous year: Mortuary, $17,927.94; reserve, $255,104.08; expense, $946.35	$273,978 37

INCOME.

Membership fees actually received—expense	$2,401 25
All other assessments or premiums—mortuary, $238,386.12; expense, $115,426.63	353,812 75
Social dues—expense	336 10
Total received from members	$356,550 10
Deduct payments returned to applicants and members—mortuary, $394.66; expense, $59.55	454 21
Net amount received from members	$356,095 89
Interest on certificates' deposit—mortuary	5,921 76
Interest on collateral loans—mortuary	1,500 00
Interest on bonds and dividends on stocks—mortuary	6,400 90
Interest from all other sources: Daily balances—mortuary	85 69
Gross rents from association's property—mortuary	300 00
Sale of lodge supplies—expense	533 95
Bond premiums, local secretaries—expense	341 53
Borrowed money—expense	7,000 00
Order home guardians—expense	2,066 15
Total income	$380,334 97

DISBURSEMENTS.

Death claims—mortuary	$227,465 48
Disability claims—expense	500 00
Old age benefits—expense	2,025 00
Total benefits paid	$229,990 48
Commissions and fees paid to deputies and organizers—expense	34,637 18
Salaries of deputies and organizers—expense	20,901 49
Salaries of officers (5)—expense	16,980 34
Compensation of trustees council—expense	3,310 00
Salaries and other compensation of committees—expense	699 69
Salaries of office employees (12)—expense	11,284 05
Salary paid to supreme medical examiner—expense	2,500 00
Salaries and fees paid to subordinate medical examiners—expense	2,177 00
Traveling and other expenses of officers, trustees and committees—expense	6,910 52
Insurance Department fees—expense	564 67
Rent—expense	2,009 89
Advertising, printing and stationery—expense	3,611 61
Postage, express, telegraph and telephone—expense	1,837 69
Lodge supplies—expense	1,563 05
Official publication—expense	3,572 67
Expense of supreme lodge meeting—expense	8,068 62
Legal expense in litigating claims—expense	215 40
Furniture and fixtures—expense	455 90
Taxes—expense	9 72
All other disbursements—mortuary, $684.80; expense, $3,813.17	4,497 97
Total disbursements	$355,797 94
Balance	$298,515 40

LEDGER ASSETS.

Book value of real estate	$8,141 71
Mortgage loans on real estate	87,250 00
Book value of bonds and stocks	97,400 00
Deposited in trust companies and banks on interest: Certificates of deposit	50,000 00
Deposited in banks (not on interest)	55,723 69
Total ledger assets	$298,515 40

Amount brought forward		$298,515 40

Non-Ledger Assets.

Interest and rents due and accrued		5,936 62
Market value of real estate over book value		9,358 29
Market value of bonds and stocks over book value		7,007 45
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge		29,281 68
Organizers' balances	$2,286 34	
Office furniture and fixtures, supplies, etc.	3,500 00	
		5,786 34
Gross assets		$355,885 78

Deduct Assets Not Admitted.

Balance due from organizers not secured by bonds	$2,286 34	
Office furniture, fixtures, supplies, etc.	3,500 00	
		5,786 34
Total admitted assets		$350,099 44

LIABILITIES.

Death claims resisted (3)	$5,733 28	
Death claims reported but not yet adjusted (29)	23,433 52	
Total death claims		$29,166 80
Disability claims reported but not yet adjusted (3)		250 00
Total unpaid claims		$29,416 80
Salaries, rents, expenses, commissions, etc., due or accrued		4,201 22
Borrowed money, $8,000.00; interest due or accrued on same, $25.00		8,025 00
Total liabilities		$41,643 02

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	29,540	$34,129,299 68
Benefit certificates written during the year	2,143	1,955,750 00
Benefit certificates increased during the year	----	9,500 00
Totals	31,683	$36,094,549 68
Deduct terminated or decreased during the year	3,473	3,222,887 00
Total benefit certificates in force December 31, 1911	28,210	$32,871,662 68

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	24	$42,200 00
Deduct terminated or decreased during the year	2	2,250 00
Total benefit certificates in force December 31, 1911	22	$39,950 00

Received during the year from members in California: Mortuary, $315.51; expense, $157.08: Total, $472.59.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	26	$18,516 46
Claims (face value) incurred during the year	273	322,031 00
Totals	299	$340,547 46
Claims paid during the year	266	227,465 48
Balance	33	$113,081 98
Saved by compromising or scaling down claims during the year (1 claim dropped)	1	83,915 18
Claims rejected during the year	3	5,733 28
Claims unpaid December 31, 1911	32	$29,166 80

EXHIBIT OF DISABILITY CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	3	$300 00
Claims incurred during the year	62	2,575 00
Totals	65	$2,875 00
Claims paid during the year	62	2,525 00
Balance	3	$350 00
Saved by compromising or scaling down claims during the year	----	100 00
Claims unpaid December 31, 1911	3	$250 00

LOYAL MYSTIC LEGION OF AMERICA.

F. J. SCHAUFEIBERGER, President. GEO. O. CHURCHILL, Secretary.

(Incorporated February 24, 1892. Commenced business March 31, 1892.)

Home Office: Hastings, Nebraska.

Balance from previous year: Mortuary, $115,819.64; building, $16,198.61; expense, $4,036.86	$136,055 11

INCOME.

Assessments or premiums during first ten months of membership of which all or an extra percentage is used for expenses—expense	$631 70
All other assessments or premiums—mortuary, $59,217.80; building, $3,109.01; expense, $15,023.69	63,829 50
Net amount received from members	$77,982 20
Interest on mortgage loans—mortuary	4,623 98
Interest from all other sources: Banks—mortuary	304 51
Gross rents from association's property, including $780.00 for association's occupancy of its own buildings—expense, $474.27; expense, $2,003.16	2,477 43
Sale of lodge supplies—expense	37 75
Certificate fees—expense	51 00
Total income	$221,531 98

DISBURSEMENTS.

Death claims—mortuary	$69,924 20
Permanent disability claims—mortuary	1,250 00
Sick and accident claims—mortuary	300 00
Total benefits paid	$74,474 20
Commissions and fees paid to deputies and organizers—expense	739 03
Salaries of officers and trustees (4)—expense	6,800 00
Salaries and other compensation of committees—expense	1,138 50
Salaries and fees paid to supreme medical examiners—expense	55 00
Salaries and fees paid to subordinate medical examiners—expense	31 00
Traveling and other expenses of officers, trustees and committees—expense	195 06
Insurance Department fees—expense	219 19
Rent—expense	780 00
Advertising, printing and stationery—expense	290 01
Postage, express, telegraph and telephone—expense	298 25
Official publication—expense	591 40
Auditing committee—expense	62 50
Taxes, repairs and other expenses on real estate—expense	1,223 16
Office supplies—expense	53 94
Miscellaneous—expense	292 08

Amount brought forward		$137,287 03

LEDGER ASSETS.

Book value of real estate		$24,678 32
Mortgage loans on real estate		97,600 00
Deposited in trust companies and banks on interest		1,000 00
Cash in association's office, $719.23; deposited in banks (not on interest), $13,290.40		14,009 63
Total ledger assets		$137,287 95

Non-Ledger Assets.

Interest and rents due and accrued		1,577 39
Market value of real estate over book value		15,321 68
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge		6,600 00
Office furniture, fixtures and supplies		1,000 00
Gross assets		$161,787 02

Deduct Assets Not Admitted.

Book value of real estate over market value	$15,321 68	
Office furniture, fixtures and supplies	1,000 00	
		16,321 68
Total admitted assets		$145,465 34

LIABILITIES.

Death claims reported but not yet adjusted (1)	$1,000 00

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	4,666	$5,977,500 00
Benefit certificates written during the year	126	------------
Benefit certificates increased during the year	----	130,500 00
Totals	4,792	$6,108,000 00
Deduct terminated or decreased during the year	274	314,500 00
Total benefit certificates in force December 31, 1911	4,518	$5,793,500 00

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	164	$233,000 00
Benefit certificates written during the year	4	3,500 00
Totals	168	$236,500 00
Deduct terminated or decreased during the year	5	5,500 00
Total benefit certificates in force December 31, 1911	163	$231,000 00

Received during the year from members in California: Mortuary, $2,334.14; building fund, $122.69; expense, $614.22: Total, $3,071.05.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims (face value) incurred during the year	58	$74,500 00
Claims paid during the year	57	73,500 00
Balance	1	$1,000 00
Saved by compromising or scaling down claims during the year		3,575 80
Claims unpaid December 31, 1911	1	$1,000 00

California claims.	Number.	Amount.
Claims (face value) incurred during the year	1	$1,000 00
Claims paid during the year	1	1,000 00

EXHIBIT OF PERMANENT DISABILITY CLAIMS.

Total claims.	Number.	Amount.
Claims incurred during the year	12	$1,250 00
Claims paid during the year	12	1,250 00

EXHIBIT OF SICK AND ACCIDENT CLAIMS.

Total claims.	Number.	Amount.
Claims incurred during the year	2	$300 00
Claims paid during the year	2	300 00

MODERN BROTHERHOOD OF AMERICA.

F. B. Hanley, President. E. L. Balz, Secretary.

(Incorporated March 20, 1897. Commenced business April 5, 1897.)

Home Office: Mason City, Iowa.

Balance from previous year: Mortuary, $80,270.64; reserve, $864,898.09; suspense, $15,105.89; expense, $12,159.06	$972,433 68
Less suspense account, being money received in 1910, deposited in bank, but not distributed to different funds	15,105 89
Balance	$957,327 79

INCOME.

Assessments or premiums—mortuary, $1,136,691.08; reserve, $117,629.85	$1,254,320 93
Dues and per capita tax—expense	291,349 20
Suspense account—suspense, $9,800.31; expense, $5,765.40	15,565 71
Total received from members	$1,561,235 84
Deduct payments returned to applicants and members—mortuary, $2,731.13; reserve, $270.51; expense, $5,254.84	8,256 48
Net amount received from members	$1,552,979 36
Interest on mortgage loans—reserve	22,177 54
Interest on bonds and dividends on stocks—reserve	25,080 98
Interest from all other sources: 2 per cent daily balance—reserve, $638.17; expense, $2,912.11	3,550 28
Sale of lodge supplies—expense	10,773 59
Rewriting certificates—expense	1,890 76
Premium surety bonds—expense	5,552 80
Advertising official paper—expense	3,892 76
Field work and field expense—expense	84,000 00
Exchange items—expense	4 81
License fees South Dakota lodges—expense	212 00
Field work refunds—expense	890 20
Drill and degree team prizes, Denver—expense	150 00
Local funds from suspended lodges—expense	146 95
Freight and express refunds—expense	12 92
Return amounts paid on bonds—expense	8 58
Waste paper sold—expense	5 73
Total income	$1,711,329 26

DISBURSEMENTS.

Death claims—mortuary	$1,194,547 89
Permanent disability claims—mortuary	8,200 00
Sick and accident claims—mortuary	30,395 00
Old age benefits—mortuary	2,350 00
Total benefits paid	$1,235,492 89
Commissions and fees paid to deputies and organizers—expense	200,043 32
Salaries of officers and trustees (3)—expense	11,119 29
Salaries and other compensation of committees—expense	1,096 76

Amount brought forward	$1,489,938 86
Insurance Department fees—expense	1,063 19
Rent, including light—expense	3,186 14
Advertising, printing and stationery—expense	17,702 43
Postage, express, telegraph and telephone—expense	15,261 69
Lodge supplies—expense	9,934 98
Official publication—expense	28,113 76
Expense of supreme lodge meeting—expense	37,762 84
Legal expense in litigating claims—expense	11,017 19
Furniture and fixtures—expense	3,502 69
All other disbursements—expense	25,601 98
Total disbursements	$1,642,984 85
Balance*	$1,025,672 20

LEDGER ASSETS.

Mortgage loans on real estate	$350,500 00
Book value of bonds and stocks	562,899 99
Deposited in trust companies and banks on interest, 2 per cent on daily balances	112,272 21
Total ledger assets	$1,025,672 20

Non-Ledger Assets.

Interests and rents due and accrued	$20,814 18
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge	99,000 00
Reserve fund, per capita tax, supplies, etc.	46,000 00
Total admitted assets	$1,191,486 38

LIABILITIES.

Death claims resisted (56)	$71,500 00	
Death claims reported but not yet adjusted (73)	98,000 00	
Total death claims		169,500 00
Permanent disability claims		10,250 00
Sick and accident claims resisted (3)	$800 00	
Sick and accident claims reported but not adjusted (33)	4,825 00	
Total sick and accident claims		5,625 00
Old age benefits reported but not yet adjusted (4)		400 00
Total unpaid claims		$185,775 00
Salaries, rents, expenses, commissions, etc., due or accrued		5,076 88
Total liabilities		$190,851 88

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	152,627	$187,375,500 00
Benefit certificates written during the year	31,058	35,171,000 00
Benefit certificates increased during the year	------	294,500 00
Totals	183,685	$222,841,000 00
Deduct terminated or decreased during the year	26,116	30,174,250 00
Total benefit certificates in force December 31, 1911	157,569	$192,666,750 00

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*Mortuary fund temporarily overdrawn $21,262.30, protected by balance in reserve fund.

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	1,476	$1,794,000 00
Benefit certificates written during the year	601	640,500 00
Benefit certificates received by transfer during the year	54	68,500 00
Benefit certificates increased during the year	------	8,000 00
Totals	2,131	$2,511,000 00
Deduct terminated or decreased during the year	476	515,000 00
Total benefit certificates in force December 31, 1911	1,655	$1,996,000 00

Received during the year from members in California: Mortuary, $11,666.95; reserve, $1,119.70; expense, $2,953.66: Total, $15,740.31.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	123	$139,500 00
Claims (face value) incurred during the year	1,019	1,257,738 20
Totals	1,142	$1,397,238 20
Claims paid during the year	1,008	1,194,547 89
Balance	134	$202,690 31
Saved by compromising or scaling down claims during the year	------	28,190 31
Claims rejected during the year	5	5,000 00
Claims unpaid December 31, 1911	129	$169,500 00

California claims.	Number.	Amount.
Claims (face value) incurred during the year	12	$13,818 18
Claims paid during the year	11	12,418 18
Balance	1	$1,400 00
Saved by compromising or scaling down claims during the year	------	400 00
Claims unpaid December 31, 1911	1	$1,000 00

EXHIBIT OF PERMANENT DISABILITY CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	12	$7,750 00
Claims incurred during the year	23	15,750 00
Totals	35	$23,500 00
Claims paid during the year	12	8,200 00
Balance	23	$15,300 00
Saved by compromising or scaling down claims during the year	------	300 00
Claims rejected during the year	8	4,750 00
Claims unpaid December 31, 1911	15	$10,250 00

EXHIBIT OF SICK AND ACCIDENT CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	42	$5,675 00
Claims incurred during the year	269	33,370 00
Totals	311	$39,045 00
Claims paid during the year	257	30,395 00
Claims rejected during the year	18	2,200 00
Saved by compromising or scaling down claims during the		825 00

California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	1	$100 00
Claims incurred during the year	3	275 00
Totals	4	$375 00
Claims paid during the year	1	50 00
Claims rejected during the year	1	100 00
Claims unpaid December 31, 1911	2	$225 00

EXHIBIT OF OLD AGE AND OTHER CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	1	$100 00
Claims incurred during the year	28	2,650 00
Totals	29	$2,750 00
Claims paid during the year	25	2,350 00
Balance	4	400 00
Claims unpaid December 31, 1911	4	400 00

MODERN ORDER OF PRÆTORIANS.

C. B. GARDNER, President. GEO. G. TAYLOR, Secretary.

(Incorporated, April 1, 1898. Commenced business, January 1, 1899.)

Home Office: Prætorian Building, Dallas, Texas.

Balance from previous year: Mortuary, $16,434.75; reserve, $559,851.17; expense, $14,834.68	$591,126 60

INCOME.

Membership fees actually received—expense	$122 75
Assessments or premiums during first twelve months of membership of which all or an extra percentage is used for expenses—mortuary, $12,538.01; expense, $56,016.39	68,554 40
All other assessments or premiums—mortuary, $178,306.60; expense, $28,603.45	206,910 05
Dues and per capita tax—expense	24,800 84
Totals received from members	$300,388 04
Deduct payments returned to applicants and members—mortuary, $942.31; expense, $200.20	1,142 51
Net amount received from members	$299,245 53
Interest on mortgage loans—reserve	50 00
Interest from all other sources—mortuary, $35.60; reserve, $184.61; expense, $12.50	232 71
Gross rents from association's property, including $2,400.00 for association's occupancy of its own buildings—reserve	87,680 03
Sale of lodge supplies—expense	1,076 35
Exchange—expense	32 87
Change certificate fees—expense	157 30
Returned commissions—expense	33 70
Returned by Insurance Department—expense	173 08
Error in age—mortuary	375 20
Refunded dues returned—mortuary, $15.52; expense, $19.58	35 10
Returned traveling expense—expense	30 80
Returned bond premiums—expense	5 77

Error in expense checks—reserve, $1.50; expense, $0.50	$2 00
Advertising—expense	85 50
Ledger liabilities increased—expense	3,180 56
Total income	$392,396 50

DISBURSEMENTS.

Death claims—mortuary	$87,292 75
Permanent disability claims—mortuary	45 00
Sick and accident claims—mortuary	925 00
Total benefits paid	$88,262 75
Commissions and fees paid to deputies and organizers—expense	46,968 68
Salaries of deputies and organizers—expense	7,172 23
Salaries of officers and trustees (6)—expense	12,172 07
Salaries and other compensation of committees—expense	1,231 25
Salaries of office employees (9)—expense	8,660 40
Salaries and fees paid to supreme medical examiners—expense	2,841 75
Salaries and fees paid to subordinate medical examiners—expense	14 00
Traveling and other expenses of officers, trustees and committees—expense	569 55
For collection and remittance of assessments and dues—expense	6,441 41
Insurance Department fees—expense	859 03
Rent, including $2,400.00 for association's occupancy of its own buildings—expense	2,998 00
Advertising, printing and stationery—reserve, $13.85; expense, $7,427.61	7,441 46
Postage, express, telegraph and telephone—expense	3,632 49
Lodge supplies—expense	1,936 75
Official publication—expense	3,060 23
Expense of supreme lodge meeting—expense	1,296 50
Legal expense in litigating claims—expense	175 00
Other legal expenses—expense	72 80
Furniture and fixtures—expense	432 25
Taxes, repairs and other expenses on real estate—reserve, $34,983.02; expense—$11.37	34,994 39
All other disbursements—reserve, $62,474.25; expense, $12,759.10	75,233 35
Total disbursements	$306,766 34
Balance	$676,756 76

LEDGER ASSETS.

Book value of real estate	$564,290 59
Mortgage loans on real estate	53,650 00
Deposited in trust companies and banks on interest	14,201 65
Cash in association's office, $25.00; deposited in banks not on interest, $38,720.86	38,745 86
Bills receivable, $500.00; organizers' balances, $4,977.71	5,477 71
Accounts receivable	390 95
Total ledger assets	$676,756 76

Non-Ledger Assets.

Interest and rents due and accrued	787 12
Market value of real estate over book value	301,709 41
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge	27,221 67
Notes on back dues on changes to higher rates	691 44
Total admitted assets	$1,007,166 40

LIABILITIES.

Death claims due and unpaid, portion of one	$500 00	
Death claims resisted (3)	8,000 00	
Death claims reported but not yet adjusted (3)	3,000 00	
Present value of deferred death and disability claims payable in installments	17,664 00	
Total unpaid claims		$29,164 00
Salaries, rents, expenses, commissions, etc., due or accrued		6,397 94
Taxes due or accrued		1,770 63
Borrowed money, $200,000.00; interest due or accrued on same, $4,500.00		204,500 00
Advance assessments		7,652 91
Total liabilities		$249,485 48

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	12,427	$15,184,685 00
Benefit certificates written during the year	5,269	6,595,870 00
Totals	17,696	$21,780,565 00
Deduct terminated or decreased during the year	2,728	3,311,605 00
Total benefit certificates in force December 31, 1911	14,968	$18,468,960 00

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	13	$17,400 00
Claims (face value) incurred during the year, also one annuity	72	89,750 00
Totals	85	$107,150 00
Claims paid during the year, also $2,392.00 on annuities	76	84,900 75
Balance	9	$22,249 25
Saved by compromising or scaling down claims during the year	-----	6,849 25
Claims rejected during the year	3	3,900 00
Claims unpaid December 31, 1911	6	$11,500 00

MODERN WOODMEN OF AMERICA.

A. R. TALBOT, President. C. W. HAWES, Secretary.

(Incorporated May 5, 1884. Commenced business January 2, 1883.)

Home Office: Rock Island, Illinois.

Balance from previous year: Mortuary, $6,573,945.72; expense, $1,096,439.46	$7,670,385 18

INCOME.

All other assessments or premiums—mortuary	$14,134,766 55
Dues and per capita tax—expense	1,448,550 05
M. W. of A. Sanatorium general fund—expense	215,854 62
Total received from members	$15,799,171 22
Deduct payments returned to applicants and members—expense	7,490 60
Net amount received from members	$15,791,680 62

Gross interest on bonds, $185,482.30, less accrued interest paid on 1911 purchases, $39,510.51—mortuary	145,971 79
Interest from all other sources—mortuary, $59,756.28; expense, $25,062.55	84,818 83
Gross rents from association's property, including $13,000.00 for association's occupancy of its own buildings—expense	13,504 00
Sale of lodge supplies—expense	135,618 44
Certificate fees—expense	19,077 75
Advertising (official paper)—expense	14,681 03
Profit on sale or redemption of bonds—mortuary	18 75
Total income	$23,875,756 39

DISBURSEMENTS.

Death claims (6,918)—mortuary	$11,613,842 85
Salaries of deputies and organizers—expense	403,056 95
Salaries of officers and trustees (3)—expense	22,500 06
Other compensation of officers and trustees (5)—expense	30,500 00
Salaries and other compensation of committees—expense	9,670 00
Salaries of office employees (231)—expense	161,364 30
Salaries and fees paid to supreme medical examiners—expense	28,554 61
Salaries and fees paid to subordinate medical examiners—expense	6,272 59
Traveling and other expenses of officers, trustees and committees—expense	13,533 55
Insurance Department fees—expense	3,335 66
Rent, including $13,000.00 for association's occupancy of its own buildings	15,100 00
Advertising, printing and stationery—expense	1,798 59
Postage, express, telegraph and telephone—expense	23,631 19
Lodge supplies—expense	113,290 34
Official publication—expense	142,124 62
Expense of supreme lodge meeting—expense	291,714 64
Legal expense in litigating claims—expense	38,450 22
Other legal expenses: Salaries, general attorneys (2)—expense	12,500 00
Furniture, fixtures and library—expense	6,266 98
Taxes, repairs and other expenses on real estate—expense	6,096 92
Loss on sale or maturity of ledger assets: Amortization of bonds—mortuary	13,273 61
Insolvent First National Bank, Charitan, Ia.—mortuary	166,666 67
Insolvent bank, E. H. McCutchen & Co., Holstein, Ia.—mortuary, $42,044.32; expense, $42,044.31	84,088 63
All other disbursements	371,621 21
Total disbursements	$13,579,254 19
Balance	$10,296,502 20

LEDGER ASSETS.

Book value of real estate	$526,067 57
Book value of bonds	6,619,699 66
Deposited in trust companies and banks on interest	3,114,734 97
Total ledger assets	$10,296,502 20

Non-Ledger Assets.

Interest and rents due and accrued		107,258 23
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge		1,325,000 00
Supply and paper stock inventory	$35,427 46	
Printing plant inventory	98,122 37	
Furniture inventory	111,603 08	
Library	7,634 25	
Sanatorium chattel property	49,803 72	

Amount brought forward		$12,031,351 31

Deduct Assets Not Admitted.

Book value of bonds and stocks over market value	$37,679 70	
Supply, paper stock, printing plant, furniture, library and sanatorium chattel property	302,590 88	
		340,270 58
Total admitted assets		$11,691,080 73

LIABILITIES.

Death claims due and unpaid (94)	$154,876 60	
Death claims resisted (135)	222,000 00	
Death claims reported but not yet adjusted (609)	1,005,000 00	
Total death claims (838)		$1,381,876 60
Salaries, rents, expenses, commissions, etc., due or accrued		60,096 95
Total liabilities		$1,441,973 55

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	1,129,850	$1,786,098,000 00
Benefit certificates written during the year	131,341	179,888,000 00
Totals	1,261,146	$1,965,986,000 00
Deduct terminated or decreased during the year	77,413	102,792,000 00
Total benefit certificates in force Dec. 31, 1911	1,183,733	$1,863,194,000 00

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	19,819	$33,675,500 00
Benefit certificates written during the year	2,683	4,044,500 00
Totals	22,502	$37,720,000 00
Deduct terminated or decreased during the year	913	1,135,000 00
Total benefit certificates in force December 31, 1911	21,589	$36,585,000 00

Received during the year from members in California: Mortuary, $276,190.85; expense, $29,417.97; Total, $305,608.82.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	695	$1,135,276 30
Claims (face value) incurred during the year	7,104	12,020,500 00
Previously dropped—reinstated	2	3,000 00
Totals	7,801	$13,158,776 30
Claims paid during the year	6,918	11,613,842 85
Balance	883	$1,544,933 45
Saved by compromising or scaling down claims during the year	-----	95,556 85
Claims rejected during the year	45	67,500 00
Claims unpaid December 31, 1911	838	$1,381,876 60

California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	15	$24,500 00
Claims (face value) incurred during the year	133	228,000 00
Totals	148	$252,500 00
Claims paid during the year	119	200,500 00
Balance	29	$52,000 00
Claims rejected during the year	3	6,000 00
Claims unpaid December 31, 1911	26	$46,000 00

MYSTIC TOILERS.

W. H. ANTES, President. J. F. TAAKE, Secretary.

(Incorporated February 3, 1899. Commenced business March 15, 1899.)

Home Office: Fourth and Locust streets, Des Moines, Iowa.

Balance from previous year: Mortuary, $719.92; reserve, $119,620.88; expense, $320.62	$120,661 42

INCOME.

Membership fees actually received—expense	$526 00
Assessments or premiums during first twelve months of membership of which all or an extra percentage is used for expenses	10,366 74
All other assessments or premiums—mortuary, $36,296.40; expense, $9,381.20	45,677 60
Dues and per capita tax—expense	4,983 10
Net amount received from members	$61,553 44
Interest on mortgage loans—reserve	6,687 77
Interest from daily balances—reserve	421 65
Sale of lodge supplies—expense	145 40
Surety bond fees—expense	84 00
Total income	$68,892 26

DISBURSEMENTS.

Death claims—mortuary	$28,968 40
Sick and accident claims—mortuary	725 00
Total benefits paid	$29,693 40
Commissions and fees paid to deputies and organizers—expense	3,979 98
Salaries of deputies and organizers—expense	826 15
Salaries of officers and trustees (7)—expense	6,086 00
Salaries and other compensation of committees—expense	90 00
Salaries of office employees (3)—expense	2,416 50
Salaries and fees paid to supreme medical examiners—expense	146 75
Traveling and other expenses of officers, trustees and committees—expense	55 10
Insurance Department fees—expense	460 42
Rent—expense	687 50
Advertising, printing and stationery—expense	962 41
Postage, express, telegraph and telephone—expense	834 72
Lodge supplies—expense	20 24
Official publication—expense	996 88
Legal expense in litigating claims	75 00
All other disbursements—reserve, $306.26; expense, $6,839.88	7,146 14
Total disbursements	$54,477 19
Balance	$135,076 49

LEDGER ASSETS.

Mortgage loans on real estate	$130,526 00
Deposited in trust companies and banks on interest	4,550 49
Total ledger assets	$135,076 49

Non-Ledger Assets.

Interest and rents due and accrued	3,944 97
Assessments actually collected by subordinate lodges not yet turned	

LIABILITIES.

Death claims reported but not yet adjusted (1)	$787 00

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	4,693	$5,394,500 00
Benefit certificates written during the year	479	490,000 00
Totals	5,172	$5,884,500 00
Deduct terminated or decreased during the year	1,827	2,227,250 00
Total benefit certificates in force December 31, 1911	3,345	$3,657,250 00

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims (face value) incurred during the year	35	$39,000 00
Claims paid during the year	34	38,000 00
Claims unpaid December 31, 1911	1	$1,000 00

EXHIBIT OF SICK AND ACCIDENT CLAIMS.

Total claims.	Number.	Amount.
Claims incurred during the year	16	$725 00
Claims paid during the year	16	725 00

NATIONAL FRATERNAL SOCIETY OF THE DEAF.

E. MORRIS BRISTOL, President. FRANCIS P. GIBSON, Secretary.

(Incorporated December 2, 1907. Commenced business December 2, 1907.)

Home Office: 64 West Randolph street, Chicago, Illinois.

Balance from previous year: Mortuary, $4,791.30; reserve, $2,013.25; sick and accident, $132.28; special relief, $1,039.63; expense, $2,807.43	$10,783 89

INCOME.

Membership fees actually received—expense	$507 00
Assessments or premiums during first month of membership of which all or an extra percentage is used for expenses—expense	27 05
All other assessments or premiums—mortuary, $10,576.63; sick and accident, $471.00	11,047 63
Dues and per capita tax—sick and accident, $1,829.34; expense, $1,219.56	3,048 90
Official publication dues—expense	720 97
Total received from members—mortuary, $10,576.63; sick and accident, $2,300.34; expense, $2,474.58	$15,351 55
Deduct payments returned to applicants and members—mortuary, $13.54; expense, $7.75	21 29
Net amount received from members—mortuary, $10,563.09; sick and accident, $2,300.34; expense, $2,466.83	$15,330 26
Interest on mortgage loans—expense	52 50
Interest from all other sources—expense	239 50
Gross rents from association's property—expense	11 50
Sale of lodge supplies—expense	108 00
Refunded sick benefit—sick and accident	5 00
General organizer's fees—expense	64 00
Grand secretary's fees—expense	25 25
Refunded Insurance Department fee—expense	10 00
Sundry supplies—expense	8 45
Total income	$15,854 46

DISBURSEMENTS.

Death claims—mortuary	$3,250 00
Sick and accident claims	1,785 00
Total benefits paid	$5,035 00
Salaries of officers and trustees (11)—expense	1,090 00
Traveling and other expenses of officers, trustees and committees—expense	204 50
For collection and remittance of assessments and dues—expense	214 53
Rent—expense	252 00
Advertising, printing and stationery—expense	55 35
Postage, express, telegraph and telephone—expense	127 07
Lodge supplies—expense	69 91
Official publication—expense	549 61
Furniture and fixtures—expense	50 25
All other disbursements—expense	258 42
Total disbursements	$7,906 64
Balance	$18,731 71

LEDGER ASSETS.

Mortgage loans on real estate	$500 00
Deposited in trust companies and banks on interest	16,000 00
Cash in association's office, $100.00; deposited in banks (not on interest), $1,831.71	1,931 71
Grand secretary's contingent fund	300 00
Total ledger assets	$18,731 71

Non-Ledger Assets.

Assessments actually collected by subordinate lodges not yet turned over to supreme lodge	18 13
Total admitted assets	$18,749 84

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	989	$488,250 00
Benefit certificates written during the year	167	114,450 00
Benefit certificates increased during the year	-----	135,500 00
Totals	1,156	$738,200 00
Deduct terminated or decreased during the year	57	32,250 00
Total benefit certificates in force December 31, 1911	1,099	$705,950 00

Business in California during year.	Number.	Amount.
Benefit certificates in force Dec. 31, 1910, as per last statement	16	$8,000 00
Benefit certificates written during the year	5	2,850 00
Benefit certificates received by transfer during the year	2	1,000 00
Benefit certificates increased during the year	-----	4,500 00
Totals	23	$15,350 00
Deduct terminated or decreased during the year	2	2,000 00
Total benefit certificates in force December 31, 1911	21	$13,350 00

Received during the year from members in California: Mortuary, $216.24; sick and accident, $38.07; expense, $47.12: Total, $301.43.

EXHIBIT OF DEATH CLAIMS.

California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	3	$1,250 00
Claims (face value) incurred during the year	4	2,000 00

EXHIBIT OF SICK AND ACCIDENT CLAIMS.

Total claims.	Number.	Amount.
Claims incurred during the year	106	$1,785 00
Claims paid during the year	106	1,785 00
California claims.	**Number.**	**Amount.**
Claims incurred during the year	1	$30 00
Claim paid during the year	1	30 00

NATIONAL UNION.

Henry C. Smale, President. Edwin A. Myers, Secretary.

(Incorporated May 11, 1881. Commenced business June, 1881.)

Home Office: 447 Michigan street, Toledo, Ohio.

Balance from previous year: Mortuary, $95,676.45; reserve, $1,761,003.70; building, $49,453.65; expense, $29,632.24	$1,935,766 04

INCOME.

Membership fees actually received—expense	$13,405 50
All other assessments or premiums—mortuary, $2,326,742.07; reserve, $50,000.00; expense, $167,297.25	2,544,039 32
Dues and per capita tax—expense	1,019 80
Other payments by members—expense	895 90
Net amount received from members	$2,559,360 52
Interest on bonds and dividends on stocks—reserve	79,693 81
Interest from all other sources—mortuary, $6,139.16; reserve, $532.01; expense, $279.41	6,950 58
Gross rents from association's property, including $2,000.00 for association's occupancy of its own buildings—expense	2,626 95
Sale of lodge supplies—expense	1,216 52
Council bonds—expense	1,147 50
Recovered from other sources—expense	531 85
Fines, net—expense	240 75
Gross profit on maturity of bonds—reserve	500 00
Total income	$2,652,268 48

DISBURSEMENTS.

Death claims—mortuary	$2,313,040 40
Commissions and fees paid to deputies and organizers—expense	34,256 95
Salaries of deputies and organizers—expense	27,054 15
Salaries of managers or agents not deputies or organizers—expense	3,550 00
Salaries of officers and trustees—expense	16,234 33
Other compensation of officers and trustees—expense	215 00
Salaries of office employees—expense	21,925 00
Salaries and other compensation of committees—expense	1,999 97
Other compensation of office employees—expense	191 50
Salaries and fees paid to supreme medical examiners—expense	4,500 00
Salaries and fees paid to subordinate medical examiners—expense	17,270 50
Traveling and other expenses of officers, trustees and committees—expense	10,582 67
Insurance Department fees—expense	495 67
Rent, including $2,000.00 for association's occupancy of its own buildings—expense	7,710 00
Advertising, printing and stationery—expense	11,044 61
Postage, express, telegraph and telephone—expense	6,217 01
Lodge supplies—expense	16 50
Official publication—expense	2,251 01

Legal expense in litigating claims—expense	$1,230 40
Furniture and fixtures—expense	1,066 36
Taxes, repairs and other expenses on real estate—expense	2,587 52
Loss on sale or maturity of ledger assets—reserve	16,109 26
All other disbursements—expense	23,808 77
Total disbursements	$2,523,357 58
Balance	$2,064,676 94

LEDGER ASSETS.

Book value of real estate	$49,453 65
Book value of bonds and stocks	1,863,988 00
Deposited in trust companies and banks on interest	151,235 29
Total ledger assets	$2,064,676 94

Non-Ledger Assets.

Interest due and accrued	21,137 09
Market value of bonds and stocks over book value	62,237 25
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge	206,187 77
Total admitted assets	$2,354,239 05

LIABILITIES.

Death claims resisted	$11,000 00	
Death claims reported but not yet adjusted	199,000 00	
Total death claims		$210,000 00
Salaries, rents, expenses, commissions, etc., due or accrued		7,138 70
Total liabilities		$217,138 70

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	63,707	$123,849,000 00
Benefit certificates written during the year	7,289	8,552,000 00
Benefit certificates increased during the year	-----	381,000 00
Totals	70,996	$132,782,000 00
Deduct terminated or decreased during the year	8,373	12,191,500 00
Total benefit certificates in force December 31, 1911	62,623	$120,590,500 00

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	3,966	$8,297,000 00
Benefit certificates written during the year	508	723,000 00
Benefit certificates received by transfer during the year	81	151,000 00
Benefit certificates increased during the year	-----	50,000 00
Totals	4,555	$9,221,000 00
Deduct terminated or decreased during the year	594	998,000 00
Total benefit certificates in force December 31, 1911	3,961	$8,223,000 00

Received during the year from members in California: Mortuary, $146,161.47; expense, $1,131.34; Total, $147,292.81.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	100	$223,000 00
Claims (face value) incurred during the year	986	2,307,000 00
Totals	1,086	$2,530,000 00
Claims paid during the year	989	2,313,040 40
Balance	97	$216,959 60
Saved by compromising or scaling down claims during the year	-----	3,959 60

California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	3	$7,000 00
Claims (face value) incurred during the year	40	121,000 00
Totals	43	$128,000 00
Claims paid during the year	38	113,000 00
Claims unpaid December 31, 1911	5	$15,000 00

NATIONAL PROTECTIVE LEGION.

Geo. A. Scott, President. H. C. Lockwood, Secretary.

(Incorporated August 17, 1891. Commenced business October 16, 1890.)

Home Office: 433 Fulton street, Waverly, New York.

Balance from previous year: Mortuary, $111,152.88; class B benefit, old form, $1,215,749.73; disability, $96.10; expense, $76.32	$1,327,075 03

INCOME.

Membership fees actually received—expense	$356 88
Assessments or premiums during first twelve months of membership of which all or an extra percentage is used for expenses—mortuary, $13.438.59; class B benefits, old form, $3.442.10: disability, $29,901.13; class B benefits, $13,446.85; expense, $64,064.31	124.292 98
All other assessments or premiums—mortuary, $103.541.71; class B benefits, old form, $600,002.10; disability, $6,598.91; expense, $77,924.49	788,067 21
Dues and per capita tax—expense	16 22
Total received from members	$914,339 07
Interest on mortgage loans—mortuary, $3.074.17; class B benefits, old form, $4.203.46; class B benefits, $50.00	7,327 63
Interest on bonds and dividends on stocks—mortuary, $3,824.75: class B benefits, old form, $37,254.60; disability, $224.16; class B benefits, $622.79	41,926 30
Interest from all other sources: First National bank—class B benefits, old form	999 97
Gross rents from association's property, including $3,000.00 for association's occupancy of its own buildings	3.876 65
Sale of lodge supplies—expense	8,276 04
Checks returned—mortuary, $1,000.00; class B benefits, old form, $2.502.44; disability, $32.60; class B benefits, $60.00; expense, $471.74	4,066 78
Sale of securities—mortuary, $262.50; class B benefits, old form, $849.87; class B benefits, $300.00	1.412 37
Other items—expense	148 01
Total income	$2,309,447 85

DISBURSEMENTS.

Death claims—mortuary, $120.821.97; class B benefits, old form, $73.685.36; disability, $7.663.40; class B benefits, $1.164.14	$203.334 87
Sick and accident claims—class B benefits, old form, $317.975.14; disability, $38.232.75; class B, $22.214.80	378.422 69
Old age benefits—mortuary	1.000 02
Distribution—class B benefits, old form	1.054.387 50
Total benefits paid	$1.637.145 08
Commissions and fees paid to deputies and organizers—expense	27.606 14
Salaries of deputies and organizers—expense	52.119 55

Salaries of officers and trustees (12)—expense	$18,024 99
Salaries of office employees (35)—expense	24,350 29
Other compensation of office employees and extra help—expense	5,288 22
Salaries and fees paid to supreme medical examiners—expense	3,287 48
Salaries and fees paid to subordinate medical examiners—expense	11,130 05
Traveling and other expenses of officers, trustees and committees—expense	6,606 74
Payment of borrowed money and interest—disability	1,525 00
Insurance Department fees—expense	546 72
Rent, including $3,000.00 for association's occupancy of its own buildings—class B benefits, old form, $3,000.00; expense, $6,762.56	9,762 56
Advertising—expense	2,845 07
Postage, express, telegraph and telephone, freight and drayage—expense	16,160 63
Lodge supplies—expense	82 69
Official publication, printing and stationery—expense	4,358 98
Expense of supreme lodge meeting—expense	5,244 11
Legal expense in litigating claims—expense	3,747 95
Other legal expenses—expense	2,964 50
Furniture and fixtures—expense	122 05
Taxes, repairs and other expenses on real estate—expense	1,026 67
Loss on sale or maturity of ledger assets—mortuary, $4,546.00; class B benefits, old form, $86,162.55; disability, $1,500.00; class B benefits, $1,950.00	94,158 55
All other disbursements—class B benefits, old form, $57,740.41; expense, $18,634.64	73,375 05
Total disbursements	$2,001,479 07
Balance	$307,968 78

LEDGER ASSETS.

Book value of real estate	$34,000 00
Mortgage loans on real estate	85,000 00
Book value of bonds and stocks	176,968 05
Deposited in trust companies and banks on interest (bank pays interest at 2 per cent per annum, monthly, on estimated balance of $50,000.00)	12,000 73
Total ledger assets	$307,968 78

Non-Ledger Assets.

Interest and rents due and accrued		8,028 82
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge		36,087 74
Office fixtures and printing plant in temple	$46,142 95	
Supplies and regalia on hand in Legion temple	21,188 29	
Office fixtures and supplies in hands of organizers	17,362 73	
Due from local legions for supplies and regalia	12,921 08	
Loaned to members for temporary disability	138,897 22	
Total		236,512 27
Gross assets		$588,597 61

Deduct Assets Not Admitted.

Printing paper and stationery	$2,420 13
Bills receivable	12,921 08
Nine shares of stock of Defiance Gas and Electric Company, Defiance, Ohio, given to us upon reorganization of company	900 00
Book value of bonds and stocks over market value	17,403 05
Loaned to members for temporary disability	138,897 22
Office fixtures and printing plant	46,142 95
Supplies on hand	21,188 29
Office fixtures and supplies in hands of organizers	17,362 73

LIABILITIES.

Death claims reported but not yet adjusted (10)	$7,669 00
Sick and accident claims reported but not yet adjusted (36)	1,403 45
Total unpaid claims	$9,072 45
Salaries, rents, expenses, commissions, etc., due or accrued	12,011 74
Advance assessments	154,447 67
Total liabilities	$176,531 86

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	86,281	$28,159,830 00
Benefit certificates written during the year	32,481	8,960,217 50
Totals	119,762	$37,120,047 50
Deduct terminated or decreased during the year	83,233	20,601,562 50
Total benefit certificates in force December 31, 1911	36,529	$16,518,485 00

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	430	$206,304 50
Benefit certificates written during the year	268	104,387 50
Totals	698	$310,692 00
Deduct terminated or decreased during the year	357	137,457 95
Total benefit certificates in force December 31, 1911	341	$173,234 05

Received during the year from members in California: Class A, $738.61; old form B, $5,480.40; class C, $772.68; new form B, $83.69; expense, $1,552.52: Total, $8,627.90.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	2	$4,000 00
Claims (face value) incurred during the year	590	216,484 08
Totals	592	$220,484 08
Claims paid during the year	582	203,334 87
Claims unpaid December 31, 1911	10	$7,669 21

California claims.	Number.	Amount.
Claims incurred during the year	6	$1,785 00
Claims paid during the year	6	1,785 00

EXHIBIT OF PERMANENT DISABILITY CLAIMS.

(Old Form B and New Form B.)

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	94	$5,949 00
Claims incurred during the year	8,190	426,896 86
Totals	8,284	$432,845 86
Claims paid during the year	7,669	340,189 94
Balance	585	$92,655 92
Claims rejected during the year	557	31,222 90
Claims unpaid December 31, 1911	28	$1,032 75

California claims.	Number.	Amount.
Claims incurred during the year	80	$7,093 55
Claims paid during the year	68	4,791 05
Balance	12	$2,302 50
Saved by compromising or scaling down claims during the year	------	1,216 50
Claims rejected during the year	12	$1,086 00

EXHIBIT OF SICK AND ACCIDENT CLAIMS.

(Class C.)

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	8	$296 00
Claims incurred during the year	1,597	41,002 15
Totals	1,605	$41,298 15
Claims paid during the year	1,493	38,232 75
Claims rejected during the year	104	2,694 70
Claims unpaid December 31, 1911	8	$370 70

California claims.	Number.	Amount.
Claims incurred during the year	11	$446 80
Claims paid during the year	9	416 00
Claims rejected during the year	2	$30 80

EXHIBIT OF OLD AGE AND DIVIDEND CLAIMS.

Total claims.	Number	Amount.
Claims incurred during the year	23,066	$1,055,387 52
Claims paid during the year	23,066	1,055,387 52

California claims.	Number.	Amount.
Claims incurred during the year	156	$7,277 09
Claims paid during the year	156	7,277 09

NORTH AMERICAN UNION.

R. E. HAMILTON, President. G. LANGHENRY, Secretary.

(Incorporated June 8, 1895. Commenced business June 8, 1895.)

Home Office: Railway Exchange Building, Chicago, Illinois.

Balance from previous year: Mortuary, $94,412.81; reserve, $581,768.60; expense, $1,596.05	$677,777 46

INCOME.

Membership fees actually received—expense	$3,768 00
All other assessments or premiums—mortuary	174,082 32
Dues and per capita tax—expense	63,369 58
Net amount received from members	$241,219 90
Interest on mortgage loans—mortuary	4,085 00
Interest on bonds and dividends on stocks—mortuary	22,221 50
Interest from all other sources—mortuary	1,723 61
Sale of lodge supplies—expense	2,447 19
District collectors' expense—expense	399 99
District collectors' dues—expense	3,546 00
Premium bonds, council officers—expense	402 00
Charter fees—expense	45 00
Transfer fees—expense	16 00
Miscellaneous—expense	792 93
Total income	$276,899 12

DISBURSEMENTS.

Death claims—mortuary	$174,535 40
Permanent disability claims—mortuary	939 83
Total benefits paid	$175,475 23
Commissions and fees paid to deputies and organizers—expense	3,553 11

Amount brought forward	$200,087 75
Other compensation of officers and trustees—expense	395 00
Salaries of office employees (13)—expense	8,340 13
Other compensation of office employees—expense	282 85
Salaries and fees paid to subordinate medical examiners—expense	5,516 36
Traveling and other expenses of officers, trustees and committees—expense	1,385 86
For collection and remittance of assessments and dues—expense	255 60
Insurance Department fees—expense	390 50
Rent—expense	4,140 00
Advertising, printing and stationery—expense	2,414 72
Postage, express, telegraph and telephone—expense	3,125 63
Lodge supplies—expense	2,022 11
Expense of supreme lodge meeting—expense	299 50
Legal expense in litigating claims—expense	1,234 23
Other legal expenses—expense	1,100 00
Furniture and fixtures—expense	310 83
Loss on sale or maturity of ledger assets—reserve	2,133 47
Repaid on borrowed money—expense	6,000 00
All other disbursements—expense	119,311 55
Total disbursements	$252,085 09
Balance	$702,591 49

LEDGER ASSETS.

Mortgage loans on real estate	$126,000 00
Book value of bonds and stocks	485,322 66
Deposited in trust companies and banks on interest	90,235 59
Cash in association's office	1,033 24
Total ledger assets	$702,591 49

Non-Ledger Assets.

Interest and rents due and accrued		9,289 96
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge		17,463 85
Supplies	$1,000 00	
Furniture and fixtures	6,688 98	
Agents' debit balances	2,067 01	
Due by councils, charter fees, supplies, etc.	11,901 49	
		21,657 48
Gross assets		$751,002 78

Deduct Assets Not Admitted.

Balance due from organizers not secured by bonds	$2,067 01	
Supplies	1,000 00	
Furniture and fixtures	6,688 98	
Councils, debit balances	11,901 49	
		21,657 48
Total admitted assets		$729,345 30

LIABILITIES.

Death claims resisted (13)	$23,000 00	
Death claims reported but not yet adjusted (18)	26,000 00	
Total unpaid claims		$49,000 00
Salaries, rents, expenses, commissions, etc., due or accrued		1,499 89
Borrowed money		28,800 00
Advance assessments		204 27
Councils, credit balances	$272 71	
Sundries, printing and supplies	262 35	
		535 06
Total liabilities		$80,039 22

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	14,569	$18,523,000 00
Benefit certificates written during the year	1,692	1,577,000 00
Benefit certificates increased during the year	----	6,500 00
Totals	16,261	$20,106,500 00
Deduct terminated or decreased during the year	1,465	1,437,000 00
Total benefit certificates in force December 31, 1911	14,796	$18,669,000 00

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	92	$106,000 00
Benefit certificates written during the year	9	10,000 00
Totals	101	$116,000 00
Deduct terminated or decreased during the year	34	34,000 00
Total benefit certificates in force December 31, 1911	67	$82,000 00

Received during the year from members in California: Mortuary, $750.49; expense, $740.94: Total, $1,491.43.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	19	$30,183 34
Claims (face value) incurred during the year	136	198,000 00
Totals	155	$228,183 34
Claims paid during the year	124	174,535 40
Balance	31	$53,647 94
Saved by compromising or scaling down claims during the year	----	4,647 94
Claims unpaid December 31, 1911	31	$49,000 00

EXHIBIT OF PERMANENT DISABILITY CLAIMS.

Total claims.	Number.	Amount.
Claims incurred during the year	3	$939 83
Claims paid during the year	3	939 83

ORDER OF THE GOLDEN SEAL.

HILL MONTAGUE, Commander. ARTHUR F. BOUTON, Secretary.

(Incorporated March 11, 1902. Commenced business February 20, 1902.)

Home Office: Roxbury, New York.

Balance from previous year: Mortuary, $44,943.10; benefit, $1,451,822.29; fraternal, life and accident, $26,625.17; contingent, $2,112.76; expense, $10,696.11	$1,536,199 43

INCOME.

Membership fees actually received—expense	$890 00
Assessments or premiums during first twelve months of membership of which all or an extra percentage is used for expenses—benefit, $16,633.00; contingent, $627.00; expense, $27,942.91	45,202 91
All other assessments or premiums—mortuary, $14,429.98; benefit, $370,582.75; fraternal, life and accident, $23,820.86; contingent, $41,301.26; expense, $29,050.96	479,185 81
Total received from members	$525,278 72

Deduct payments returned to applicants and members—mortuary,

Amount brought forward	$524,986 57
Interest on mortgage loans—benefit, $21,942.68; fraternal, life and accident, $105.00	22,047 68
Interest on collateral loans—benefit	10,040 98
Interest on bonds and dividends on stocks—benefit, $37,531.01; fraternal, life and accident, $20.00	37,551 01
Interest from all other sources—benefit, $1,413.56; fraternal, life and accident, $22.05	1,435 81
Gross rents from association's property—fraternal, life and accident	2,688 80
Sale of lodge supplies—expense	2,870 92
Disability loans returned—benefit	79,132 38
Fees for change of beneficiaries, etc.—expense	120 20
Borrowed money—fraternal, life and accident	25,000 00
Profit on sale of real estate—fraternal, life and accident	304 37
Profit on sale of bonds—benefit	806 25
Transferred from other funds—expense	94,041 02
Total income	$801,025 99

DISBURSEMENTS.

Death claims—mortuary, $3,000.00; benefit, $39,944.43; fraternal, life and accident, $22,732.45	$65,726 58
Permanent disability claims—benefit	750 00
Sick and accident claims—benefit	22,920 00
Other benefits: Dividends—benefit	647,946 16
Disability loans—benefit	101,010 00
Total benefits paid	$838,352 74
Commissions and fees paid to deputies and organizers—expense	14,212 46
Salaries of deputies and organizers—expense	39,143 03
Salaries of officers and trustees—expense	12,179 08
Other compensation of officers and trustees—expense	215 00
Salaries and other compensation of committees—expense	2,206 00
Salaries of office employees—expense	13,071 67
Cost of department examination—expense	872 27
Salaries and fees paid to supreme medical examiners—expense	2,600 00
Salaries and fees paid to subordinate medical examiners—expense	1,965 00
Traveling and other expenses of officers, trustees and committees—expense	5,728 81
For collection and remittance of assessments and dues—expense	4,610 91
Insurance Department fees—expense	280 94
Rent—expense	1,049 16
Advertising, printing and stationery—expense	4,181 77
Postage, express, telegraph and telephone—expense	3,688 66
Lodge supplies—expense	1,886 95
Official publication—expense	2,167 28
Expense of supreme lodge meeting—expense	2,404 46
Legal expense in litigating claims—expense	1,053 40
Other legal expenses—expense	1,713 85
Furniture and fixtures—expense	400 55
Taxes, repairs and other expenses on real estate—reserve, $250.05; fraternal, life and accident, $987.62	1,237 67
Loss on sale or maturity of ledger assets—reserve	17,767 57
All other disbursements—reserve, $378.99; fraternal, life and accident, $119.91; expense, $11,852.53	12,351 43
Total disbursements	$1,079,381 68
Balance	$1,257,843 74

LEDGER ASSETS.

Book value of real estate	$54,905 86
Mortgage loans on real estate	385,797 99
Book value of bonds and stocks	683,638 77
Deposited in trust companies and banks on interest	22,006 62

Cash in association's office, $146.81; deposited in banks not on interest, $66,209.75		$66,356 56
Bills receivable, $752.95; organizers' balances, $40,638.69		41,392 64
Furniture and fixtures		2,176 30
Cash in branch offices		1,569 00
Total ledger assets		$1,257,843 74

Non-Ledger Assets.

Interest and rents due and accrued		26,525 75
Market value of real estate over book value		5,703 42
Market value of stocks over book value		300 00
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge		41,322 83
Due from camps for supplies	$3,076 40	
Furniture and fixtures	8,366 69	
Supplies and printed matter on hand	5,000 00	
Disability loans on certificates	245,519 50	
		261,962 59
Gross assets		$1,593,658 33

Deduct Assets Not Admitted.

Balance due from organizers not secured by bonds	$40,639 69	
Bills receivable	752 95	
Book value of bonds over market value	22,273 00	
Supplies, etc.	5,000 00	
Dues from camps	3,076 40	
Furniture and fixtures	10,542 99	
Disability loans	245,519 50	
		327,804 53
Total admitted assets		$1,265,853 80

LIABILITIES.

Death claims resisted (1)	$1,600 00
Sick and accident claims reported but not yet adjusted (3)	340 00
Total unpaid claims	$1,940 00
Salaries, rents, expenses, commissions, etc., due or accrued	23,959 10
Borrowed money $25,000; interest due or accrued on same, $347.05	25,347 05
Reserve on death benefit certificates	31,861 00
Total liabilities	$83,107 15

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	27,755	$18,026,250 00
Benefit certificates written during the year	5,911	8,980,250 00
Totals	33,666	$27,006,500 00
Deduct terminated or decreased during the year	10,279	8,820,250 00
Total benefit certificates in force December 31, 1911	23,387	$18,186,250 00

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	281	$417,750 00
Benefit certificates written during the year	114	159,000 00
Benefit certificates received by transfer during the year	3	500 00
Totals	398	$577,250 00
Deduct terminated or decreased during the year	293	459,500 00
Total benefit certificates in force December 31, 1911	105	$117,750 00

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	5	$4,280 00
Claims (face value) incurred during the year	189	62,814 13
Totals	194	$67,494 13
Claims paid during the year	193	65,494 13
Claims unpaid December 31, 1911	1	$1,600 00

EXHIBIT OF SICK AND ACCIDENT CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	5	$420 00
Claims incurred during the year	2,771	123,850 00
Totals	2,776	$124,270 00
Claims paid during the year	2,773	123,930 00
Claims rejected during the year	182	9,616 75
Claims unpaid December 31, 1911	3	$340 00
California claims.	Number.	Amount.
Claims incurred during the year	15	$645 00
Claims paid during the year	15	645 00

ORDER OF THE IROQUOIS.

MEDFORD B. FARRINGTON, President. WALTER A. RICE, Secretary.

(Incorporated February 16, 1898. Commenced business February 16, 1898.)

Home Office: 644 and 646 Ellicott Square, Buffalo, New York.

Balance from previous year: Benefit, $42,694.26; expense, $3,419.11: Total	$46,113 37

INCOME.

Application fees actually received—expense	$552 00
All other assessments or premiums—benefit, $32,222.93; expense, $10,797.10	43,020 03
Dues from members at large—expense	464 25
Change of certificates—expense	21 00
Total received from members	$44,057 28
Deduct payments returned to applicants and members	5 55
Net amount received from members	$44,051 73
nterest from cash in banks—benefit, $1,617.45; expense, $115.64	1,733 09
Sale of lodge supplies—expense	153 84
Collections on checks, postage and telephone—expense	88
Fines from lodges—expense	4 90
Dispensation to hold special meeting—expense	1 00
Returned by error in account paid—expense	2 50
Supreme lodge banquet tickets—expense	15 00
Surplus of check issued to pay supreme lodge session—expense	33 85
Assessments received by supreme secretary from members at large in December and not yet apportioned—expense	192 98
Extension fund in hands of supreme secretary—expense	239 19
Total income	$46,428 96

DISBURSEMENTS.

Death claims—benefit	$36,602 62
Commissions paid to deputies and organizers—expense	1,118 00
Salaries of deputies and organizers—expense	775 00

Salaries of officers (2)—expense	$2,887 50
Compensation of trustees, per diem—expense	375 00
Salaries of office employees (3)—expense	1,676 00
Fees paid to supreme medical examiner—expense	163 50
Fees paid to subordinate medical examiners—expense	581 00
Traveling and other expenses of officers—expense	320 23
Insurance Department fees—expense	181 01
Advertising, printing and stationery—expense	882 97
Postage, express, telegraph and telephone—expense	577 17
Lodge supplies—expense	145 50
Expense of supreme lodge meeting	599 85
Legal expenses	336 16
Furniture and fixtures—expense	37 10
Bonds of officers—expense	20 00
Dues in federated fraternities—expense	15 00
Total disbursements	$47,996 61
Balance	$44,545 72

LEDGER ASSETS.

Deposited in trust companies and banks on interest	$44,017 68
Cash in association's office	528 04
Total ledger assets	$44,545 72

Non-Ledger Assets.

Assessments actually collected by subordinate lodges not yet turned over to supreme lodge		3,315 62
Office furniture and fixtures	$450 00	
Supplies on hand	150 00	
		600 00
Gross assets		$48,461 34

Deduct Assets Not Admitted.

Office furniture and fixtures	$450 00	
Supplies on hand	150 00	
		600 00
Total admitted assets		$47,861 34

LIABILITIES.

Death claims reported but not yet adjusted (6)	$4,008 75
Salaries, rents, expenses, commissions, etc., due or accrued	992 17
Total liabilities	$5,000 92

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	2,503	$3,563,530 00
Benefit certificates written during the year	261	315,750 00
Totals	2,764	$3,879,280 00
Deduct terminated or decreased during the year	277	329,980 00
Total benefit certificates in force December 31, 1911	2,487	$3,549,300 00

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	12	$15,475 00
Total benefit certificates in force December 31, 1911	12	$15,475 00

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	7	$8,850 00
Claims (face value) incurred during the year	34	40,280 00
Totals	41	$49,130 00
Claims paid during the year	35	36,602 62
Balance	6	$12,527 38
Saved by compromising or scaling down claims during the year	-----	6,027 38
Claims unpaid December 31, 1911	6	$6,500 00

ORDER OF RAILWAY EMPLOYEES.

L. H. **Ledger**, Supreme Conductor. **Albert Lindley**, Supreme Secretary.

(Incorporated August 17, 1906. Commenced business August 18, 1906.)

Home Office: 381 Bush street, San Francisco, California.

Balance from previous year	$8,157 58

INCOME.

Membership fees actually received—mortuary	$17,478 33
Assessments or premiums during first ——— months of membership of which all or an extra percentage is used for expenses—mortuary	54,493 83
All other assessments or premiums—mortuary	1,007 45
Total income	$72,979 61

DISBURSEMENTS.

Death claims—mortuary	$2,000 00
Permanent disability claims—mortuary	1,000 00
Sick and accident claims—mortuary	28,482 33
Total benefits paid	$31,482 33
General fund, 33⅓ and 40 per cent—mortuary	38,414 58
Total disbursements	$69,896 91
Balance	$11,240 28

LEDGER ASSETS.

Book value of bonds and stocks	$7,747 57
Deposited in banks (not on interest)	3,311 21
General fund	181 50
Total ledger assets	$11,240 28

LIABILITIES.

Death claims adjusted not yet due	$2,560 00
Present value of deferred death and disability claims payable in installments	3,000 00
Total death claims	$5,560 00

EXHIBIT OF CERTIFICATES.

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	2,715	$1,508,950 00
Benefit certificates written during the year	2,430	1,350,000 00
Totals	5,145	$2,858,950 00
Deduct terminated or decreased during the year	1,606	880,250 00
Total benefit certificates in force December 31, 1911	3,539	$1,978,700 00

EXHIBIT OF DEATH CLAIMS.

California claims.	Number.	Amount.
Claims (face value) incurred during the year	6	$1,700 00
Claims paid during the year	6	1,700 00

EXHIBIT OF PERMANENT DISABILITY CLAIMS.

California claims.	Number	Amount.
Claims incurred during the year	1	$500 00
Claims paid during the year	1	500 00

EXHIBIT OF SICK AND ACCIDENT CLAIMS.

California claims.	Number.	Amount.
Claims incurred during the year	685	$23,942 43
Claims paid during the year	685	23,942 43

POLISH NATIONAL ALLIANCE OF THE UNITED STATES OF AMERICA.

M. B. STECZYUSKI, President. S. J. CZECHOWICZ, Secretary.

(Incorporated, 1896. Commenced business, 1880.)

Home Office: 1406 Division street, Chicago, Illinois.

Balance from previous year: Mortuary, $186,350.65; reserve, $773,481.94; expense, $60,032.98	$1,019,865 57

INCOME.

Membership fees actually received—expense	$11,917 50
All other assessments or premiums—mortuary, $611,163.71; reserve, $53.32; expense, $110,395.59	721,612 62
Net amount received from members	$733,530 12
Interest on mortgage loans—reserve, $48,254.71; expense, $2,031.16	50,285 87
Interest on bonds and dividends on stocks—reserve	400 00
Interest from all other sources—expense	938 45
Gross rents—reserve	1,500 00
Sale of lodge supplies—expense	1,251 00
From all other sources	1,249 52
Total income	$789,154 96

DISBURSEMENTS.

Death claims—mortuary	$441,592 62
Old age benefits—mortuary	1,170 00
Total benefits paid	$442,762 62
Commissions and fees paid to deputies and organizers—expense	1,173 55
Salaries of officers and trustees (4)—expense	5,441 66
Other compensation of officers and trustees—expense	667 00
Salaries of office employees (17)—expense	12,310 00
Other compensation of office employees—expense	182 38
Salaries and fees paid to supreme medical examiners—expense	1,354 10
Traveling and other expenses of officers, trustees and committees—expense	2,602 93
For collection and remittance of assessments and dues—expense	249 97
Insurance Department fees—expense	739 56
Rent—expense	1,500 00
Advertising, printing and stationery—expense	2,928 26
Postage, express, telegraph and telephone—expense	2,757 45
Lodge supplies—expense	7,757 26

Amount brought forward	$511,660 04
Legal expense in litigating claims—expense	568 57
Other legal expenses—expense	800 00
Furniture and fixtures—expense	805 16
Taxes, repairs and other expenses on real estate—expense	5,300 16
All other disbursements—expense	85,853 49
Total disbursements	$604,987 42

LEDGER ASSETS.

Book value of real estate	$36,500 00
Mortgage loans on real estate	1,057,450 00
Book value of bonds and stocks	9,975 00
Deposited in trust companies and banks on interest	45,000 00
Deposited in banks (not on interest)	55,108 11
Total ledger assets	$1,204,033 11

Non-Ledger Assets.

Interest and rents due and accrued	15,262 27
Market value of real estate over book value	6,500 00
All other assets	41,328 20
Gross assets	$1,267,123 58

Deduct Assets Not Admitted.

Items	41,238 20
Total admitted assets	$1,225,795 38

LIABILITIES.

Death claims due and unpaid (168)	$67,022 66	
Death claims adjusted not yet due (24)	14,100 00	
Death claims resisted (12)	5,200 00	
Death claims reported but not yet adjusted (98)	62,900 00	
Total death claims		$149,222 66
Old age and other benefits due and unpaid (9)		6,750 00
Total unpaid claims		$155,972 66
All other liabilities		3,064 21
Total liabilities		$159,036 87

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	67,505	$374,155 00
Benefit certificates written during the year	12,859	74,470 00
Benefit certificates increased during the year	----	1,145 00
Totals	80,364	$449,770 00
Deduct terminated or decreased during the year	5,677	31,623 00
Total benefit certificates in force December 31, 1911	74,687	$418,147 00

Business in California during year.	Number	Amount.
Benefit certificates in force December 31, 1910, as per last statement	148	$95,300 00
Benefit certificates written during the year	32	21,900 00
Totals	180	$117,200 00
Deduct terminated or decreased during the year	8	7,300 00
Total benefit certificates in force December 31, 1911	172	$109,900 00

Received during the year from members in California: Mortuary, $1,611.13; expense, $236.24; Total, $1,847.37.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	280	$143,364 61
Claims (face value) incurred during the year	752	451,700 00
Totals	1,032	$595,064 61
Claims paid during the year	729	441,592 62
Balance	303	$153,471 99
Saved by compromising or scaling down claims during the year	----	3,749 33
Claims rejected during the year	1	500 00
Claims unpaid December 31, 1911	302	$149,222 66

California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	2	$1,800 00
Claims (face value) incurred during the year	8	7,300 00
Totals	10	$9,100 00
Claims paid during the year	8	7,850 00
Claims unpaid December 31, 1911	2	$1,250 00

EXHIBIT OF OLD AGE AND OTHER CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	2	$1,620 00
Claims incurred during the year	8	6,300 00
Totals	10	$7,920 00
Claims paid during the year	1	1,170 00
Claims unpaid December 31, 1911	9	$6,750 00

SUPREME COUNCIL, ROYAL ARCANUM.

F. T. McFADEN, Supreme Regent. ALFRED T. TURNER, Supreme Secretary.

(Incorporated November 5, 1877. Commenced business June 23, 1877.)

Home Office: 407 Shawmut avenue, Boston, Massachusetts.

Balance from previous year: Mortuary, $602,485.71; reserve, $6,087,113.79; expense, $185,710.19	$6,875,309 69

INCOME.

Assessments paid in advance—mortuary	$886 19
All other assessments or premiums—mortuary	7,959,264 16
Dues and per capita tax—expense	197,843 40
Interest, ½ cash payments—mortuary	4,846 19
Change of benefit certificates, $2,982.50; Royal Arcanum bulletin, $2.30; members at large, $7.00—expense	2,991 80
Total received from members	$8,165,831 74
Deduct payments returned to applicants and members—expense	13 00
Net amount received from members	$8,165,818 74
Interest on bonds and dividends on stocks—reserve, $235,684.04; expense, $2,380.00	238,064 04
Interest from all other sources: Bank balances—mortuary, $15,304.74; reserve, $1,329.20; expense, $2,248.04	18,881 98
Interest from deposit with Provisional Treasurer of Quebec—expense	150 00
Gross rents from association's property—expense	4,258 63
Sale of lodge supplies—expense	2,114 09

Amount brought forward		$1,430,298 83
Sale of old paper, etc.—expense		79 28
Sale of office furniture, etc.—expense		25 00
Sundry refunds, etc.—expense		16 38
Recovered on erroneous claim paid in 1906—mortuary		1,397 12
Total income		$8,431,816 61

DISBURSEMENTS.

Death claims—mortuary		$8,221,186 22
Salaries of deputies and organizers—expense		27,490 97
Salaries of officers and trustees (6)—expense		28,500 00
Other compensation of officers and trustees—expense		4,836 08
Salaries and other compensation of committees—expense		4,050 00
Salaries of office employees (69)—expense		54,912 16
Salaries and fees paid to supreme medical examiners—expense		4,500 00
Traveling and other expenses of officers, trustees and committees, official visits—expense		3,121 44
Insurance Department fees—expense		546 67
Rent—expense		4,258 63
Advertising, printing and stationery—expense		13,773 50
Postage, express, telegraph and telephone—expense		4,946 68
Lodge supplies—expense		917 13
Official publication, Royal Arcanum bulletins—expense		20,230 69
Expense of supreme lodge meeting—expense		25,531 76
Legal expense in litigating claims—expense		3,564 90
Other legal expenses—expense		2,316 53
Furniture and fixtures—expense		807 10
Taxes, repairs and other expenses on real estate—expense		4,258 63
Loss on sale or maturity of ledger assets: Bonds—reserve		1,466 85
All other disbursements—expense		12,083 44
Total disbursements		$8,443,299 38
Balance		$6,863,826 92

LEDGER ASSETS.

Book value of real estate		$45,000 00
Book value of bonds and stocks: Emergency, $5,980,090.39; general, $65,327.50		6,045,417 89
Deposited in trust companies and banks on interest		760,409 03
Other ledger assets (see list)		8,000 00
Deposited with Provincial Treasurer of Quebec		5,000 00
Total ledger assets		$6,863,826 92

Non-Ledger Assets.

nterest and rents due and accrued		78,207 57
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge on back assets	$997 76	
Due from councils and grand councils	106 25	
Printing plant, $7,741.35; printing material, $1,176.72	8,918 07	
Supplies for sale	1,449 52	
Office furniture	4,965 54	
Total		16,437 14
Gross assets		$6,958,471 63

Deduct Assets Not Admitted.

Bills receivable: Due from councils and grand councils	$106 25	
Book value of bonds and stocks over market value	336,088 89	
Printing plant, $7,741.35; printing material, $1,176.72	8,918 07	
Supplies for sale	1,449 52	
		351,528 27
Total admitted assets		$6,606,943 36

LIABILITIES.

Death claims due and unpaid (35), class A	$72,373 24	
Death claims resisted (11), class D, 3; class E, 8	30,000 00	
Death claims reported but not yet adjusted (273), classes B and C	620,899 33	
Total unpaid claims		$723,272 57
Salaries, rents, expenses, commissions, etc., due or accrued		2,312 67
Advance assessments		886 19
Due councils and grand councils		220 38
Total liabilities		$726,691 81

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	245,458	$489,897,727 99
Benefit certificates written during the year	16,123	20,469,500 00
Benefit certificates increased during the year	------	930,000 00
Totals	261,581	$511,297,227 99
Deduct terminated or decreased during the year	12,693	23,304,882 19
Total benefit certificates in force December 31, 1911	248,888	$487,992,345 80

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	2,373	$4,759,500 00
Benefit certificates written during the year	128	192,500 00
Benefit certificates received by transfer during the year	256	527,000 00
Benefit certificates increased during the year	-------	10,000 00
Totals	2,757	$5,489,000 00
Deduct terminated or decreased during the year	320	607,499 25
Total benefit certificates in force December 31, 1911	2,437	$4,881,500 75

Received during the year from members in California: Mortuary, $74,969.73; expense, $1,832.25: Total, $76,802.58.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	408	$917,231 61
Claims (face value) incurred during the year	3,551	8,051,718 63
Totals	3,959	$8,968,950 24
Claims paid during the year	3,619	8,221,186 22
Balance	340	$747,764 02
Saved by compromising or scaling down claims during the year	-------	9,491 45
Claims rejected during the year	29	39,000 00
Claims unpaid December 31, 1911	311	$699,272 57

California claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	6	$13,938 34
Claims (face value) incurred during the year	31	70,154 57
Totals	37	$84,092 91
Claims paid during the year	33	75,493 85
Claims unpaid December 31, 1911	4	$8,599 06

EXHIBIT OF PERMANENT DISABILITY CLAIMS.

Class E—Consisting of claims on account of persons not in good standing at time of alleged death and who have previously been deducted from our membership.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910	9	$25,000 00
Claims incurred in 1911	3	9,000 00
Total	12	34,000 00
Transferred to recognized claims	1	1,000 00
Abandoned	3	9,000 00
Claims unpaid December 31, 1911	8	$24,000 00

ROYAL NEIGHBORS OF AMERICA.

Myra B. Enright, President. Hada M. Burkhart, Secretary.

(Incorporated March 21, 1895. Commenced business March 21, 1895.)

Home Office: Rock Island, Illinois.

Balance from previous year: Mortuary, $433,627.00; Ramsey, $1,789.22; emergency, $372.86; expense, $187,628.74	$623,417 82

INCOME.

Membership fees actually received—expense	$29,045 00
All other assessments or premiums—mortuary	1,412,390 25
Dues and per capita tax—expense	254,427 35
Certificate and card fees—expense	2,928 75
Total received from members	$1,698,791 35
Deduct payments returned to applicants and members—expense	1,457 02
Net amount received from members	$1,697,334 33
Interest on bonds and dividends on stocks—mortuary	9,565 12
Interest from all other sources—mortuary, $3,348.87; Ramsey, $32.47; emergency, $7.19; safety, $0.70; expense, $3,607.79	6,997 00
Gross rents from association's property—expense	675 00
Sale of lodge supplies—expense	16,881 18
Voluntary contributions—Ramsey	1 70
Surety bond fees—safety, $5,248.67; expense, $2,279.20	7,527 87
Income from official publication—expense	148 65
Total income	$1,739,130 85

DISBURSEMENTS.

Death claims—mortuary	$1,268,972 53
Total benefits paid	$1,268,972 53
Commissions and fees paid to deputies and organizers—expense	49,792 48
Salaries of managers or agents not deputies or organizers—expense	375 00
Salaries of officers and trustees (12)—expense	12,848 02
Other compensation of officers and trustees—expense	6,144 00
Salaries and other compensation of committees—expense	3,315 00
Salaries of office employees (77)—expense	44,490 66
Salaries and fees paid to supreme medical examiners—expense	277 00
Salaries and fees paid to subordinate medical examiners—expense	63 20
Traveling and other expenses of officers, trustees and committees—expense	13,589 47
Insurance Department fees—expense	1,202 97
Rent, including $675.00 for association's occupancy of its own buildings—expense	2,123 00
Advertising, printing and stationery—expense	8,435 97
Postage, express, telegraph and telephone—expense	13,539 44

Lodge supplies—expense	$12,687 39
Official publication—expense	33,833 66
Expense of supreme lodge meeting—expense	97,279 10
Legal expense in litigating claims—expense	5,931 22
Other legal expenses—expense	3,163 93
Furniture and fixtures—expense	2,723 66
Taxes. repairs and other expenses on real estate—expense	379 44
All other disbursements—mortuary, $624.10; emergency, $95.60; expense, $4,212.65	4,932 35
Total disbursements	$1,586,099 49
Balance	$776,449 18

LEDGER ASSETS.

Book value of real estate	$13,500 00
Book value of bonds and stocks	245,288 35
Deposited in trust companies and banks on interest	517,660 83
Total ledger assets	$776,449 18

Non-Ledger Assets.

Interest and rents due and accrued	4,201 67
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge (estimated)	170,547 60
Gross assets	$951,198 45

Deduct Assets Not Admitted.

Book value of bonds and stocks over market value	3,568 35
Total admitted assets	$947,630 10

LIABILITIES.

Death claims due and unpaid (7)	$8,000 00	
Death claims resisted (22)	22,500 00	
Death claims reported but not yet adjusted (181)	182,500 00	
Total death claims		$213,000 00
Salaries, rents, expenses, commissions, etc., due or accrued (estimated)		16,000 00
Taxes due or accrued (estimated)		300 00
Total liabilities		$229,300 00

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	209,873	$223,012,500 00
Benefit certificates written during the year	31,338	31,777,750 00
Benefit certificates increased during the year	-----	669,250 00
Totals	241,211	$255,459,500 00
Deduct terminated or decreased during the year	6,964	7,510,000 00
Total benefit certificates in force December 31, 1911	234,247	$247,949,500 00

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	3,266	$3,602,000 00
Benefit certificates written during the year	541	545,000 00
Benefit certificates received by transfer during the year	136	158,000 00
Benefit certificates increased during the year	-----	9,000 00
Totals	3,943	$4,314,000 00
Deduct terminated or decreased during the year	210	229,750 00

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	177	$184,250 00
Claims (face value) incurred during the year	1,256	1,290,500 00
Totals	1,433	$1,474,750 00
Claims paid during the year	1,243	1,268,972 53
Balance	190	$205,777 47
Saved by compromising or scaling down claims during the year		14,927 47
Claims rejected during the year	11	9,850 00
Claims unpaid December 31, 1911	179	$181,000 00

California claims.	Number.	Amount.
Claims (face value) incurred during the year	18	$18,500 00
Claims paid during the year	14	15,500 00
Claims unpaid December 31, 1911	4	$3,000 00

THE ROYAL HIGHLANDERS.

W. E. Sharp, President. F. J. Sharp, Secretary.

(Incorporated August 10, 1896. Commenced business August 11, 1896.)

Home Office: Highlander Building, Aurora, Nebraska.

Balance from previous year: Mortuary, reserve, and disability funds, $1,094,062.66; expense, $60,206.78	$1,154,269 44

INCOME.

Membership fees actually received—expense	$896 50
Assessments or premiums—mortuary, reserve, and disability, $287,694.25; expense, $44,351.75	332,046 00
Dues and per capita tax—expense	27,989 50
Total received from members	$360,932 00
Interest on mortgage loans—mortuary, reserve, and disability	52,697 51
Interest on bonds and dividends on stocks—mortuary, reserve and disability	1,720 00
Interest from all other sources—mortuary, reserve, and disability	1,517 47
Gross rents from association's property, including $1,200.00 for association's occupancy of its own buildings—expense	2,795 00
Sale of lodge supplies—expense	1,170 12
Commissions on loans—expense	7,021 00
Miscellaneous items—expense	33 10
Total income	$427,886 20

DISBURSEMENTS.

Death claims—mortuary, reserve, and disability	$236,126 08
Permanent disability claims—mortuary, reserve, and disability	5,600 00
Total benefits paid	$241,726 08
Commissions and fees paid to deputies and organizers—expense	30,028 49
Salaries of deputies and organizers—expense	18,342 30
Salaries of officers and trustees (7)—expense	16,940 00
Salaries of office employees (8)—expense	7,700 50
Salaries and fees paid to supreme medical examiners—expense	1,181 25
Traveling and other expenses of officers, trustees and committees—expense	668 81
Insurance Department fees—expense	374 45

Rent, including $1,200.00 for association's occupancy of its own buildings—expense	$1,920 00
Advertising, printing and stationery—expense	1,847 46
Postage, express, telegraph and telephone—expense	1,948 94
Lodge supplies—expense	1,552 93
Official publication—expense	4,223 44
Legal expense in litigating claims and other legal expenses	3,385 67
Furniture and fixtures—expense	134 55
Taxes, repairs and other expenses on real estate—expense	657 80
All other disbursements—expense	1,393 44
Total disbursements	$334,026 11
Balance	$1,248,129 53

LEDGER ASSETS.

Book value of real estate	$45,257 87
Mortgage loans on real estate	1,089,000 00
Book value of bonds and stocks	43,000 00
Deposited in banks (not on interest)	70,871 66
Total ledger assets	$1,248,129 53

Non-Ledger Assets.

Interest and rents due and accrued	32,112 65
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge	41,832 25
Gross assets	$1,322,074 43

LIABILITIES.

Death claims reported but not yet adjusted (15)	$18,166 68

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	27,819	$39,540,500 00
Benefit certificates written during the year	4,514	5,191,000 00
Totals	32,333	$44,731,500 00
Deduct terminated or decreased during the year	4,294	5,051,000 00
Total benefit certificates in force December 31, 1911	28,039	$39,680,500 00

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	188	$240,000 00
Benefit certificates written during the year	339	380,000 00
Totals	527	$620,000 00
Deduct terminated or decreased during the year	146	146,000 00
Total benefit certificates in force December 31, 1911	381	$474,000 00

Received during the year from members in California: Mortuary, reserve, and disability, $2,911.52; expense, $730.43: Total, $3,641.95.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	17	$19,333 35
Claims (face value) incurred during the year	171	236,953 66
Totals	188	$256,287 01
Claims paid during the year	172	236,126 08
Balance	16	$20,160 93
Saved by compromising or scaling down claims during the year		994 25

EXHIBIT OF PERMANENT DISABILITY CLAIMS.

Total claims.	Number.	Amount.
Claims incurred during the year	29	$5,600 00
Claims paid during the year	29	5,600 00

UNITED ARTISANS.

H. S. Hudson, President. C. L. McKenna, Secretary.

(Incorporated November 1, 1894. Commenced business November 1, 1894.)

Home Office: 521 Beck Building, Portland, Oregon.

Balance from previous year: Mortuary, $53,394.63; reserve, $403,213.33; contingent, $115,732.77; expense, $2,269.71	$574,610 44

INCOME.

Membership fees actually received—expense	$975 00
All other assessments or premiums—mortuary, $135,032.43; reserve, $19,982.85	15,501 28
Dues and per capita tax—expense	43,252 81
Medical examiners' fees actually received	316 50
Net amount received from members	$199,559 59
Interest on mortgage loans—contingent	23,347 47
Interest on bonds and dividends on stocks—contingent	9,268 00
Interest from all other sources—contingent	521 88
Sale of lodge supplies	1,015 44
Total	$233,709 38

DISBURSEMENTS.

Death claims—mortuary	$115,380 79
Accident claims—mortuary	1,500 00
Old age benefits—mortuary	270 00
Total benefits paid	$117,150 79
Commissions and fees paid to deputies and organizers—expense	5,031 53
Salaries of deputies and organizers—expense	12,603 45
Salaries of managers or agents not deputies or organizers—expense	2,900 00
Salaries of officers and trustees—expense	7,395 00
Salaries of office employees	3,726 40
Salaries and fees paid to supreme medical examiners—expense	1,720 00
Traveling and other expenses of officers, trustees and committees—expense	3,046 80
Insurance Department fees—expense	177 50
Rent—expense	1,692 00
Advertising, printing and stationery	2,897 63
Postage, express, telegraph and telephone—expense	1,708 24
Lodge supplies—expense	876 96
Official publication	1,673 27
Accrued interest—contingent	653 68
Furniture and fixtures—expense	1,057 34
Total disbursements	$164,292 59

LEDGER ASSETS.

Mortgage loans on real estate	$440,975 00
Book value of bonds and stocks	152,000 00
Deposited in trust companies and banks on interest	51,052 23
Total ledger assets	$644,027 23

Non-Ledger Assets.

Interest and rents due and accrued	8,226 74
Gross assets	$652,253 97

LIABILITIES.

Death claims reported but not yet adjusted (4)	$4,000 00

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	14,684	$172,420 00
Benefit certificates written during the year	2,338	23,660 00
Totals	17,022	$196,080 00
Deduct terminated or decreased during the year	1,644	15,295 00
Total benefit certificates in force December 31, 1911	15,378	$180,785 00

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	10	$12,000 00
Claims (face value) incurred during the year	101	119,500 00
Totals	111	$131,500 00
Claims paid during the year	107	115,380 79
Balance	4	$16,119 21
Saved by compromising or scaling down claims during the year		12,119 21
Claims unpaid December 31, 1911	4	$4,000 00

EXHIBIT OF SICK AND ACCIDENT CLAIMS.

Total claims.	Number.	Amount.
Claims incurred during the year	2	$1,500 00
Claims paid during the year	2	1,500 00

EXHIBIT OF OLD AGE AND OTHER CLAIMS.

Total claims.	Number.	Amount.
Claims incurred during the year	3	$270 00
Claims paid during the year	3	270 00

WOODMEN OF THE WORLD.

Head Camp, Pacific Jurisdiction.

I. I. BOAK, Head Consul. C. V. BENSON, Head Clerk.

F. P. BERTSCHY, Head Auditor.

(Incorporated January 20, 1891. Commenced business June 28, 1890.)

Home Office: 1447 No. Tremont street, Denver, Colorado.

Balance from previous year: Mortuary, $1,231,642.37; reserve, $2,519,697.64; ———, $5,052.90; expense, $38,135.44	$3,794,528 35

INCOME.

Assessments or premiums—mortuary, $1,832,335.95; reserve, $294,422.25	$2,061,758 20
Dues and per capita tax—expense	187,211 60
Certificate fees—expense	2,184 50
Net amount received from members	$2,251,154 30
Interest on bonds and dividends on stocks—mortuary, $64,850.70; reserve, $124,760.17; ———, $210.00; expense, $2,040.00	191,860 87
Interest from all other sources—mortuary, $2,742.36; reserve, $532.05; expense, $295.81	3,570 22

Amount brought forward	$2.454.626 61
Other refunds—expense	299 94
Fines—expense	340 00
Gross increase by adjustment in book value of ledger assets: Bonds—mortuary, $168.69; reserve, $1.760.96	1.929 65
Total income	$2.457.196 20

DISBURSEMENTS.

Death claims—mortuary, $1.379.525.00; ———, $1.000.00	$1.380.525 00
Monuments—mortuary	71.573 00
Total benefits paid	$1.452.098 00
Commissions and fees paid to deputies and organizers—expense	1.424 00
Salaries of deputies and organizers—expense	58.585 21
Salaries of officers and trustees (9)—expense	20.300 04
Other compensation of officers and trustees—expense	2.940 00
Salaries of office employees (31)—expense	28.959 45
Other compensation of office employees—expense	2.010 00
Salaries and fees paid to supreme medical examiners—expense	3.600 00
Traveling and other expenses of officers, trustees and committees and examining department—expense	10.268 72
Insurance Department fees—expense	75 00
Rent, including $2.000.00 for association's occupancy of its own buildings—expense	2.496 30
Advertising, printing and stationery—expense	7.233 53
Postage, express, telegraph and telephone—expense	6.858 10
Lodge supplies—expense	1.586 73
Official publication—expense	13.083 65
Expense of supreme lodge meeting—expense	1.726 85
Legal expense in litigating claims—expense	2.863 01
Other legal expenses—expense	1.250 00
Furniture and fixtures—expense	1.065 84
Taxes, repairs and other expenses on real estate—expense	1.189 65
Loss on sale or maturity of ledger assets—mortuary, $25.900.22; reserve, $63.755.87; ———, $23.41; expense, $546.68	90.226 18
All other disbursements—mortuary, $739.06; ———, $520.60; expense, $12.401.05	13.660 71
Total disbursements	$1.723.500 97
Balance	$4.528.223 58

LEDGER ASSETS.

Book value of real estate	$50.000 00
Book value of bonds and stocks	4.317.195 20
Deposited in trust companies and banks on interest	161.028 38
Total ledger assets	$4.528.223 58

Non-Ledger Assets.

Interest due and accrued on bonds		$81.037 59
Interest accrued on other assets		350 83
Market value of bonds and stocks over book value		65.361 27
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge		188.148 37
Due from camps for certificate fees and supplies	$1.016 98	
Stock supplies and stationery	2.497 85	
Furniture and fixtures	10.327 96	
Postage on hand	76 17	
Due from head camp officers	300 00	
Total		14.218 96
Gross assets		$4.877.340 60

Amount brought forward		$4,877,340 60

Deduct Assets Not Admitted.

Due from camps for certificate fees and supplies	$1,016 98	
Stock supplies and stationery	2,497 85	
Furniture and fixtures	10,327 96	
Total		13,842 79
Total admitted assets		$4,863,497 81

LIABILITIES.

Death claims resisted (8)	$14,900 00	
Death claims reported but not yet adjusted (82)	142,500 00	
Total death claims		$157,400 00
Fifty-four monuments		5,400 00
Total unpaid claims		$162,800 00
Salaries, rents, expenses, commissions, etc., due or accrued		9,982 98
Taxes due or accrued		656 67
Lost beneficiaries		2,400 00
Total liabilities		$175,839 65

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	101,847	$185,252,700 00
Benefit certificates written during the year	12,491	17,478,100 00
Benefit certificates increased during the year	------	141,000 00
Totals	114,338	$202,871,800 00
Deduct terminated or decreased during the year	8,388	12,993,300 00
Total benefit certificates in force December 31, 1911	105,950	$189,878,500 00

Business in California during year.	Number.	Amount.
Benefit certificates in force December 31, 1910, as per last statement	33,126	$56,897,600 00
Benefit certificates written during the year	4,276	5,760,600 00
Benefit certificates received by transfer during the year	------	46,000 00
Totals	37,402	$62,704,200 00
Deduct terminated or decreased during the year	2,530	3,616,000 00
Total benefit certificates in force December 31, 1911	34,872	$59,688,200 00

Received during the year from members in California: Mortuary, $566,906.61; reserve, $70,987.52; expense, $61,212.10: Total, $699,106.23.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
Claims unpaid December 31, 1910, as per last statement	91	$161,000 00
Claims (face value) incurred during the year	780	1,419,500 00
Reinstated, previously rejected	5	8,000 00
Totals	876	$1,588,500 00
Claims paid during the year	791	1,379,525 00
Balance	85	$208,975 00
Saved by compromising or scaling down claims during the year	------	60,475 00
Claims rejected during the year	3	6,000 00
Claims unpaid December 31, 1911	82	$142,500 00

California claims.	Number.	Amount.
laims unpaid December 31, 1910, as per last statement	34	$58,000 00
laims reinstated—previously rejected	1	1,000 00
laims (face value) incurred during the year	240	403,500 00
Totals	275	$462,500 00
laims paid during the year	245	397,900 00
Balance	30	$64,600 00
aved by compromising or scaling down claims during the year	------	14,100 00
Claims unpaid December 31, 1911	30	$50,500 00

EXHIBIT OF OLD AGE AND OTHER CLAIMS.

Total claims.	Number.	Amount.
laims unpaid December 31, 1910, as per last statement	60	$6,000 00
laims incurred during the year	712	71,200 00
Totals	772	$77,200 00
laims paid during the year	718	71,573 00
Balance	54	$5,627 00
aved by compromising or scaling down claims during the year	------	227 00
Claims unpaid December 31, 1911	54	$5,400 00

California claims.	Number.	Amount.
laims unpaid December 31, 1910, as per last statement	19	$1,900 00
laims incurred during the year	210	21,000 00
Total	229	$22,900 00
laims paid during the year	207	20,625 00
Balance	22	$2,275 00
ived by compromising or scaling down claims during the year	------	75 00
Claims unpaid December 31, 1911	22	$2,200 00

ORKMEN'S SICK AND DEATH BENEFIT FUND OF THE UNITED STATES OF AMERICA.

AUL FLASCHEL, President. WILLIAM MEYER, Secretary.

(Incorporated February 13, 1899. Commenced business October 19, 1884.)

Home Office: Nos. 1 and 3 Third avenue, New York City, New York.

alance from previous year: Mortuary, $67,549.46; reserve, $286,235.88; sick and accident, $63,361.03; expense, $15,657.10	$432,803 47

INCOME.

embership fees actually received—reserve	$14,536 00
ll other assessments or premiums—mortuary, $157,043.77; sick and accident, $316,833.45; expense, $28,176.19	502,053 41
enefit certificates, membership books and fines—expense	1,571 65
Total received from members	$518,161 06
educt payments returned to applicants and members	32 00
Net amount received from members	$518,129 06

Interest on mortgage loans—reserve	$1,361 39
Interest from all other sources—reserve	1,733 20
Sale of lodge supplies—expense	39 05
Sick benefit refunded—sick and accident	6 40
Expense for mortgage committee refunded—expense	11 86
Overpaid mileage from delegate to convention refunded—expense	10 00
Subscription for official publication—expense	50
Total income	$536,291 46

DISBURSEMENTS.

Death claims—mortuary	$118,434 98
Sick and accident claims	293,836 40
Total benefits paid	$412,271 38
Salaries of officers and trustees (2)—expense	2,171 41
Other compensation of officers and trustees—expense	31 20
Salaries and other compensation of committees—expense	336 50
Salaries of office employees (5)—expense	4,683 16
Insurance Department fees—expense	41 00
Rent—expense	900 00
Advertising, printing and stationery—expense	4,349 61
Postage, express, telegraph and telephone—express	1,342 36
Lodge supplies—expense	178 93
Official publication—expense	9,577 73
Expense of supreme lodge meeting—expense	872 12
Legal expense in litigating claims—expense	1,075 53
Furniture and fixtures—expense	24 75
All other disbursements—expense	1,084 38
Total disbursements	$438,940 06
Balance	$530,154 87

LEDGER ASSETS.

Mortgage loans on real estate		$389,400 00
Deposited in trust companies and banks on interest		34,759 82
Cash in association's office		52 24
In treasury of subordinate bodies, or deposited in banks by them		105,942 81

Non-Ledger Assets.

Interest and rents due and accrued		7,132 40
Furniture, fixtures and safes, etc.	$1,200 00	
Supplies and printed matter	1,400 00	
Assessments due and unpaid	40,429 42	
		43,029 42
Gross assets		$580,316 69

Deduct Assets Not Admitted.

Furniture, fixtures and safes, etc.	$1,200 00	
Supplies and printed matter	1,400 00	
Assessments due and unpaid	40,429 42	
		43,029 42
Total admitted assets		$537.287 27

LIABILITIES.

Death claims due and unpaid (6)	$788 62	
Death claims resisted (11)	2,674 00	
Death claims reported but not yet adjusted (83)	18.236 20	
Total death claims		$21,698 82
Sick and accident claims due and unpaid (3)		1,175 60

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
enefit certificates in force December 31, 1910, as per last statement	45,267	$11,316,750 00
enefit certificates written during the year	3,369	842,250 00
Totals	48,636	$12,159,000 00
educt terminated or decreased during the year	1,930	482,500 00
Total benefit certificates in force December 31, 1911	46,706	$11,676,500 00

Business in California during year.	Number.	Amount.
enefit certificates in force December 31, 1910, as per last statement	649	$162,250 00
enefit certificates written during the year	109	27,250 00
enefit certificates received by transfer during the year	39	9,750 00
Totals	797	$199,250 00
educt terminated or decreased during the year	49	12,250 00
Total benefit certificates in force December 31, 1911	748	$187,000 00

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
laims unpaid December 31, 1910, as per last statement	80	$17,633 80
laims (face value) incurred during the year	490	122,500 00
Totals	570	$140,133 80
laims paid during the year, exclusive (9 partly)	470	118,434 98
Claims unpaid December 31, 1911	100	$21,698 82

California claims.	Number.	Amount.
laims unpaid December 31, 1910, as per last statement	2	$500 00
laims (face value) incurred during the year	9	2,250 00
Totals	11	$2,750 00
laims paid during the year	9	2,250 00
Claims unpaid December 31, 1911	2	$500 00

EXHIBIT OF SICK AND ACCIDENT CLAIMS.

Total claims.	Number.	Amount.
laims unpaid December 31, 1910, as per last statement	5	$1,549 25
laims incurred during the year	11,432	293,462 75
Totals	11,437	$295,012 00
laims paid during the year	11,434	295,836 40
Claims unpaid December 31, 1911	3	$1,175 60

California claims.	Number.	Amount.
laims incurred during the year	186	$4,791 00
laims paid during the year	186	4,791 00

WOMEN OF WOODCRAFT.

arrie C. Van Orsdall, President. John L. Wright, Secretary.

(Reincorporated September 22, 1905. Commenced business April 1, 1897.)

Home Office: No. 394 Taylor street, Portland, Oregon.

alance from previous year: Mortuary, $488,461.65; reserve, $461,122.25; expense, $9,021.67	$958,605 57

INCOME.

embership fees actually received—expense	$3,438 25
ll other assessments or premiums—mortuary, $572,307.50; reserve, $57,340.20	629,647 70
ues and per capita tax—expense	96,534 88
Net amount received from members	$729,620 83

Interest on bonds and dividends on stocks—mortuary, $21,792.64; reserve, $21,728.12	43,520 76
Gross rents from association's property—reserve, $1,500.00; expense, $956.25	2,456 25
Sale of lodge supplies—expense	2,140 98
From circles—expense	100 04
Refund on scrip—expense	257 41
Advertising—expense	479 33
Refund, organization—expense	66 50
Canceled warrant, No. 15615—expense	25 00
Refund, official visiting—expense	60 00
Refund, telephone and telegrams—expense	40
Bills payable, general fund—expense	10,995 94
Total income	$789,723 44

DISBURSEMENTS.

Death claims—mortuary	$380,754 17
Monuments and funeral benefits—mortuary	27,905 00
Total benefits paid	$408,659 17
Salaries of deputies and organizers—expense	30,693 45
Salaries of managers or agents not deputies or organizers—expense	3,038 45
Salaries of officers and trustees—expense	9,625 00
Salaries of office employees—expense	16,055 65
Salaries and fees paid to supreme medical examiners—expense	3,557 11
Traveling and other expenses of officers, trustees and committees—expense	4,004 33
Insurance Department fees—expense	130 15
Advertising, printing and stationery—expense	4,202 40
Postage, express, telegraph and telephone—expense	6,111 21
Lodge supplies—expense	1,057 06
Official publication—expense	17,315 40
Expense of supreme lodge meeting—expense	10,995 94
Legal expense in litigating claims—expense	372 38
Other legal expenses—expense	880 00
Furniture and fixtures—expense	472 78
Taxes, repairs and other expenses on real estate—expense	708 06
Loss on sale or maturity of ledger assets—mortuary, $62.50; reserve, $31.68	94 18
All other disbursements—expense	5,480 17
Total disbursements	$523,452 89
Balance	$1,224,876 12

LEDGER ASSETS.

Book value of real estate	$97,057 34
Book value of bonds and stocks	1,012,632 72
Deposited in banks not on interest	103,526 07
Bills receivable	10,995 94
Due from circles	664 05
Total ledger assets	$1,224,876 12

Non-Ledger Assets.

Interest and rents due and accrued		18,431 63
Market value of real estate over book value		17,942 66
Assessments actually collected by subordinate lodges not yet turned over to supreme lodge		52,264 30
Per capita tax due from circles	$7,893 75	
Furniture and fixtures, stationery, supplies and printed matter	26,000 00	
		33,893 75

nount brought forward		$1,347,408 46

Deduct Assets Not Admitted.

ook value of bonds and stocks over market value	$8,558 96	
ue from circles	664 05	
urniture and fixtures, stationery, supplies and printed matter	26,000 00	
		35,223 01
Total admitted assets		$1,312,185 45

LIABILITIES.

eath claims reported but not yet adjusted (45)	$50,783 33
lvance assessments	761 25
Total liabilities	$51,544 58

EXHIBIT OF CERTIFICATES.

Total business of the year.	Number.	Amount.
enefit certificates in force December 31, 1910, as per last statement	46,186	$58,178,800 00
enefit certificates written during the year	4,903	4,050,000 00
Totals	51,089	$62,228,800 00
educt terminated or decreased during the year	3,532	3,669,900 00
Total benefit certificates in force December 31, 1911	47,557	$58,558,900 00

Business in California during year.	Number.	Amount.
enefit certificates in force December 31, 1910, as per last statement	10,302	$11,363,800 00
enefit certificates written during the year	1,189	887,300 00
Totals	11,491	$12,251,100 00
educt terminated or decreased during the year	813	681,800 00
Total benefit certificates in force December 31, 1911	10,678	$11,569,300 00

Received during the year from members in California: Mortuary, $108,290.50; serve, $10,930.00; expense, $23,049.47: Total, $142,269.97.

EXHIBIT OF DEATH CLAIMS.

Total claims.	Number.	Amount.
aims unpaid December 31, 1910, as per last statement	45	$44,819 25
aims (face value) incurred during the year	340	394,400 00
Totals	385	$439,219 25
aims paid during the year	339	380,754 17
Balance	46	$58,465 08
ved by compromising or scaling down claims during the year	-----	7,437 50
aims dropped during the year	1	244 25
Claims unpaid December 31, 1911	45	$50,783 33

California claims.	Number.	Amount.
aims unpaid December 31, 1910, as per last statement	10	$8,825 00
aims (face value) incurred during the year	68	69,700 00
Totals	78	$78,525 00
aims paid during the year	65	62,000 00
Balance	13	$16,525 00
ved by compromising or scaling down claims during the year	-----	1,950 00
Claims unpaid December 31, 1911	13	$14,575 00

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